## State Conservation Commission Meeting November 13, 2018 PA Department of Agriculture, Harrisburg PA

### 'Draft' Agenda

#### Briefing Session - 10:00am (Rm 309)

Review of Business Items Review of SCC Programs and Strategic Planning Discussion

#### Business Session - 1:00 pm (Rm 309)

#### A. Opportunity for Public Comment

#### **B. Business and Information Items**

- 1. Approval of Minutes
  - a. September 11, 2018 (A)
  - b. October 9, 2018 Conference Call CANCELLED
- 2. Proposed 2019 Public Meeting and Conference Call dates Karl Brown, SCC (A)
- 3. Appointment of Vice-Chair for 2019 Karl Brown, SCC (A)
- 4. Nutrient & Odor Management Program
  - a. Neal Zimmerman (CAO), Nutrient Management Plan, Northumberland County Larry Baum, SCC (A)
  - b. John Rishel (CAO), Nutrient Management Plan, Northumberland County Larry Baum, SCC (A)
  - c. Orlin Martin (CAO), Nutrient Management Plan, Northumberland County Larry Baum, SCC (A)
  - d. Samuel Stoltzfus, Northumberland County Larry Baum, SCC (A)
  - e. Kiliti Family Farm, David Kiliti (CAO), Nutrient Management Plan, Columbia County – Michael Walker, SCC (A)
  - f. Downs Racing, Mohegan Sun at Pocono Downs NMP amendment (CAO/CAFO), Luzerne – Michael Walker, SCC (A)
  - g. Nutrient Management Advisory Board Membership Frank Schneider, SCC (NA)

- 5. Conservation District Funding
  - a. County Conservation District Request for Reserve Account Johan Berger, SCC (A)
- 6. Spotted Lanternfly Education and Control Program Grant Update Johan Berger, SCC
- 7. Dirt and Gravel Road Program Update Roy Richardson, SCC; Steve Bloser, PSU; Ken Corradini, PSU.
- 8. Chesapeake Bay Program WIP Update DEP

#### **C. Written Reports**

- 1. Program Reports
  - a. Act 38 Nutrient and Odor Management Program Report
  - b. Act 38 Facility Odor Management Program & Status Report on Plan Reviews
  - c. Certification and Education Program Accomplishment Report
  - d. REAP Accomplishment Report
  - e. Dirt, Gravel, and Low Volume Road Maintenance Report
- 2. Ombudsman Program Reports Southern Allegheny Region (Blair County Conservation District) and Lancaster County Conservation District

#### **D.** Cooperating Agency Reports

#### Adjournment

Next Public Meetings December 11, 2018 Conference Call

January 30, 2019 Public Meeting – State College, PA

## STATE CONSERVATION COMMISSION MEETING PA Department of Agriculture, Harrisburg, PA

Tuesday, September 11, 2018 1:00 p.m.

## **Draft Minutes**

<u>Members Present</u>: Greg Hostetter for Secretary Russell Redding, PDA; Secretary Patrick McDonnell, DEP; Michael Flinchbaugh; Donald Koontz; Ross Orner; Ron Rohall; Ron Kopp; MaryAnn Warren; Chris Houser for Dr. Richard Roush, Penn State; Denise Coleman, NRCS; Drew Gilchrist, DCNR for Secretary Cindy Adams Dunn; Adam Walters for Denise Brinley, DCED; Brenda Shambaugh, PACD.

#### A. Public Input

There were no public comments presented.

#### **B.** Business and Information Items

1. a. <u>Approval of Minutes – July 18, 2018 - Public Meeting</u>. It was noted that there was a mistake in the Members Present section...Ron Kopp was in attendance at the July 18, 2018 meeting.

Upon correction of the July 18, 2018 minutes, MaryAnn Warren moved to approve the July 18, 2018 public meeting minutes. Motion seconded by Mike Flinchbaugh. Motion carried.

b. Approval of Minutes - August 21, 2018 - Conference Call.

Don Koontz moved to approve the August 21, 2018 conference call minutes. Motion seconded by Ross Orner. Motion carried.

- 2. Nutrient and Odor Management Program
  - a. <u>Aaron Smucker (CAO), Nutrient Management Plan, Northumberland County</u>. Michael Walker, SCC, reported that the Aaron Smucker farm is a proposed operation planning to build two organic broiler barns (26,250 birds per barn), a horse barn, and a dog kennel (40'x80') near Sunbury, PA. All collected poultry manure will be exported directly from the barns to a known importer who has adequate cropland acres to land apply this manure. All horse manure will be land applied and all dog kennel waste will be collected and placed in a roll-off dumpster and taken to a landfill. The animal equivalent units (AEUs) per acre are 64.57, classifying this operation as a concentrated animal operation (CAO) under Act 38 of 2005. The proposed NMP for Smucker's animal operation indicates needed BMPs to be implemented on the operation, namely – Animal Mortality Facility, Critical Area Seeding, Forage, & Biomass Planting (pastures) and storm water controls for the new barns and facilities proposed to be constructed. These practices are needed to assist the operator with overall management of this proposed broiler and horse operation.

<u>Mike Flinchbaugh made a motion to approve the Aaron Smucker nutrient</u> management plan. Motion seconded by Ross Orner. Motion carried.

- 3. Conservation District Funding.
  - a. <u>Funding Allocation for the Ombudsman Program Blair and Lancaster Counties</u>. Johan Berger, SCC, reported that Commission staff and representatives of Blair and Lancaster conservation districts met recently to review current Ombudsman Program activities and future program needs. It was determined that funding is available to expand current Ombudsman activities carried out by both Blair and Lancaster Conservation Districts. Blair has requested an increase of \$10,000 and Lancaster has requested an additional \$15,000 in annual funding. Additional funding expands current Ombudsman activities and expands support to the following initiatives:

#### **Blair County Conservation District Ombudsman Program**

- Support action items identified in the Alleghenies Ahead multicounty municipal plan related to agriculture.
- Work with PDA to develop Urban Ag initiatives in Southern Alleghenies and Facilitate Urban Ag (Farm to Fork) events within the region.
- Assist Penn State Extension with distributing information on farm diversification and ag alternatives (especially with dairy producers)
- Promote the Agriculture Conservation Stewardship (PACS) Program and encourage producer participation.

#### Lancaster County Conservation District Ombudsman Program

- Expand education and community outreach to municipal officials about ACRE, and other ag-related rules and regulations, partnering with staff from Penn State Agricultural and Shale Law Center.
- Represent the Ag community on the York County Stormwater Authority Implementation Planning team as they develop a model approach to address regional storm water issues.
- Expand legislators' understanding of issues related to agriculture's industry trends, economic impacts of agriculture, and future viability education and outreach to legislators.
- Provide a targeted outreach effort to the equine community regarding compliance with manure management and Ag E&S requirements through developing relationships with service providers that the equine community trusts and respects.
- Reinforce education and outreach to farmers about minimizing potential conflicts including fly minimization around barns and in field applications; proper mortality disposal, and good neighbor relations.

Mike Flinchbaugh made a motion to approve the increased funding request for Blair (\$10,000) and Lancaster (\$15,000) County conservation districts. Motion seconded by Ron Rohall. Motion carried.

b. <u>Statewide Conservation District FY 2017-2018 Funding Report and Discussion.</u> Karl Brown, SCC, and Fred Fiscus, DEP, reported that conservation districts receive funding from a diverse group of state agency programs. These state funds support both district operations (staff salary, benefits and operations) as well as pass-through grant funding to support various state program goals and objectives. In FY 2017-18, districts received and managed a total of approximately \$70 million in state funds for operations and grant pass-through. Understanding the source and scope of these funds will help Commission members as they engage in strategic planning discussions later this Fall. Fred Fiscus reviewed an annual program budgeting worksheet with Commission members that staff feel is an appropriate tool to assist conservation districts on annual budget development and provide state program staff and the Commission a holistic view of funding use by conservation districts.

#### Action: No action required.

c. <u>Forest County Conservation District Request for Reserve Account</u>. Johan Berger, SCC, reported that Forest County Conservation District is requesting approval to place \$20,000 of their FY 2018-19 Unconventional Gas Well Fund (UGWF) allocation into an existing, previously Commission-approved scholarship reserve account for the Russell M. Smith Scholarship Fund. This fund awards annual scholarships in the amount of \$1,000 to Forest County residents planning to continue their education in a conservation or forestry-related field.

Don Koontz made a motion to approve the Forest County Conservation District's request to place \$20,000 in FY 2018-19 UGWF revenue into their existing Russell M. Smith Scholarship Fund. Motion seconded by Mary Ann Warren. Motion carried.

4. <u>Proposal for Strategic Planning/SWOT</u>. Karl Brown, SCC, reported that in 2008, the Commission utilized a Strength, Weakness, Opportunity, and Threat (SWOT) survey as a part of strategic planning exercises. A SWOT analysis is an effective tool used to help an organization's planning team analyze the opportunities and threats in the external environment, as well as the internal strengths and weaknesses of the organization. The planning team can then discuss strategies for seizing opportunities, neutralizing threats, capitalizing on strengths, and addressing or minimizing weaknesses. Commission staff is proposing to utilize this same survey approach as part of a strategic planning effort beginning this Fall 2018. Conservation districts, cooperating agencies, and organizations will be invited to complete the SWOT analysis.

#### Action Requested: No action required.

5. <u>Spotted Lanternfly Education and Control Program Grant.</u> Johan Berger, SCC, reported that in August 2018, Commission staff, in cooperation with PDA Bureau of Plant Industry staff, provided notice to thirteen county conservation districts in the Spotted Lanternfly Quarantine Zone that \$500,000 federal funds were available for districts interested in assisting with outreach, education, and control measures. These districts have been asked to provide a funding application by September 14, 2018. Districts may also provide a Letter of Intent if their district board has not taken formal action on the district's SLF funding application. This Letter of Intent will assist the Department and Commission to better prioritize and allocate these funds.

Action Requested: No action required.

- 6. <u>Chesapeake Bay Program WIP Update</u>. Deputy Secretary Greg Hostetter, PDA, co-chair of the PA Chesapeake Bay Agricultural Work Group, provided an overview of recommendations made by the Pennsylvania Chesapeake Bay Program Agricultural Workgroup regarding the BMPs and level of effort recommended in order for the Commonwealth to meet nutrient and sediment reductions for the Chesapeake Bay watershed Total Maximum Daily Load (TMDL). Veronica Kasi, Director of DEP's Chesapeake Bay Program Office also provided a general update on the Commonwealth's effort to finalize recommendations for the Phase III WIP. Agricultural recommendations included:
  - Agricultural compliance
  - Performance of practices for improvement of soil health, residue management
  - Performance of practices for improvement of soil health, management and use of cover crops
  - Performance of practices for improvement of soil health, prescribed grazing
  - Enhanced NM planning lands not receiving animal manure
  - Enhanced development and operation of manure storage facilities
  - Precision feeding and management diet
  - Development of integrated system for elimination of excess manure
  - Enhanced development of forested and grassed buffer

Additional recommendations included:

- Discourage imposition of legal mandates on stakeholders and landowners
- Financial and tax incentives for landowner participation in changing or preserving land use
- Reporting and confidentiality
- Increased technical assistance in design and implementation of agriculture BMPs
- Advanced soil health initiatives
- Innovative regulatory incentives for attainment of priority agricultural BMP implementation initiatives
- Reevaluations of existing funding sources and their uses
- Enhanced Nutrient Management planning for biosolids
- Expanded coordination of joint MS4 and nonpoint source nutrient pollution reduction actions and offsetting
- Coordinated streambank measures
- Increased and extensive focus in Legacy Sediment programs.

#### Action: No action required.

#### **C.** Written Reports – Self Explanatory

- 1. Program Reports
  - a. Act 38 Nutrient and Odor Management Program Report
  - b. Act 38 Facility Odor Management Program & Status Report on Plan Reviews
- 2. Ombudsman Program Reports Southern Allegheny Region (Blair County Conservation District and Lancaster County Conservation District)

#### D. Cooperating Agency Reports – DCNR, PDA, Penn State, DCED, DEP, NRCS, PACD

**DCNR** - Drew Gilchrist reported that September is PA Trails month. Everyone is invited to explore one of the 650 trails in the state that total over 12,000 miles of hiking, paddling, and riding fun. More information can be obtained at ExplorePAtrails.com. ExplorePAtrails.com has a database of trail information to assist with finding specific information regarding trails across PA. There is also specific information about the PA Trail of the Year, Forbidden Drive, and other featured trails.

**PDA** – Deputy Secretary Greg Hostetter reported that the All-American Dairy Show will be held from Saturday, September 15 through Wednesday, September 19, 2018. He mentioned the ongoing issues with Spotted Lanternfly. NRCS is helping with flood disaster areas in Pennsylvania. There is a new invasive species in Pennsylvania – the Asian Longhorned Tick. The West Nile virus has also been a problem this year, due to the very wet weather. Ag Research Request for Proposals (RFPs) went out recently and were posted in the PA Bulletin. There was an all Ag staff, agency-wide meeting on August 22, 2018 at the PA Farm Show Building to discuss the LEAN initiative and strategic planning.

**PSU** – No report.

DCED – No report.

**DEP** – Secretary McDonnell reported on the e-Permitting 105 program. It is now being reviewed, and there will soon be a go-live date for this program.

**NRCS** – Denise Coleman reported that there is Federal assistance available through EWP for the July 21, 2018 storm damage that affected residences and businesses in the following 18 counties: York, Lancaster, Lebanon, Bradford, Sullivan, Wyoming, Columbia, Lycoming, Schuylkill, Berks, Chester, Montour, Wayne, Susquehanna, Dauphin, Lackawanna, Luzerne, and Northampton. The Emergency Watershed Protection (EWP) Program, a federal emergency recovery program, helps local communities recover after a natural disaster strikes. The program offers technical and financial assistance to help local communities relieve imminent threats to life and property caused by floods, fires, windstorms and other natural disasters that impair a watershed. Applications are being accepted for this assistance until October 15, 2018.

**PACD** – Brenda Shambaugh reported that the PACD/SCC Winter meeting will be held at the Toftrees Golf Resort in State College on January 30-31, 2019. The Joint Annual Conference in July 2019 will be at the Genetti Hotel in Williamsport, PA. Thank you to Matt Miller for organizing the Management Summit in September. Fifty districts were in attendance at these meetings. The PACD regional meetings will be starting on October 4, 2018. Regarding Riparian Buffers, DCNR provided funding for districts to put together projects. Monroe County had a \$48,000 project.

Adjournment: Meeting adjourned at 3:27 p.m.

Next Public Meeting: October 9, 2018 – Conference Call November 13, 2018 – PA Department of Agriculture Building, Harrisburg, PA, Room 309



#### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

October 16, 2018

To: State Conservation Commission Members

From: Karl G. Brown Executive Secretary

**RE:** Tentative 2019 Meeting Dates and Conference Call Dates

The following are proposed 2019 Commission meeting dates.

#### **2019 Proposed Meeting Dates**

#### Date

January 30th March 12<sup>th</sup> May 14<sup>th</sup> July 17<sup>th</sup> September 10<sup>th</sup> November 12<sup>th</sup> (Joint Annual Conference)

## 2019 Proposed Conference Call Dates

(8:30-10:00AM)

February 19<sup>th</sup> April 9<sup>th</sup> June 11<sup>th</sup> August 20th October 8<sup>th</sup> December 10<sup>th</sup>

#### **Location**

State College - Toftrees Harrisburg Harrisburg Williamsport–Genetti Hotel(tent) Harrisburg Harrisburg



#### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

Date: November 6, 2018

**To:** State Conservation Commission Members

From: Karl G. Brown Executive Secretary

**RE:** Election of Vice-Chairperson 2019

#### Background:

Section 4(1) of the Conservation District Law, Act 217, states in part that, "at the last regular meeting of the Commission in the calendar year, a vice-chairperson shall be elected by the members of the Commission and shall serve in that capacity for the ensuing year."

Since the November 13, 2018 is the last regularly scheduled meeting of the State Conservation Commission for 2018, action to fill the position of vice-chairperson for 2019 is necessary. Mr. Michael Flinchbaugh currently serves as the vice-chairperson of the Commission, and he has expressed an interest in accepting the nomination for election as Vice-Chairperson, of the Commission, for 2019.

Responsibility of the vice-chairperson is to preside over any business meetings of the Commission in the absence of the Chairman.

#### **Action Required**:

A motion to nominate and elect Mr. Michael Flinchbaugh as Commission vice-chairperson for 2019 is necessary.



#### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

September 20, 2018
Members State Conservation Commission
Larry G Baum State Conservation Commission

SUBJECT: Nutrient Management Plan Review Neal Zimmerman., Northumberland County, Pennsylvania

#### Action Requested

Action on a Nutrient Management Plan for the following operation in Luzerne County:

Neil Zimmerman 10 Patton Road Danville, PA 17821

#### **Background**

I have completed the required review of the subject nutrient management plan listed above. Final corrections to the plan were received at the State Conservation Commission on September 20, 2018. As of that date, the plan was considered to be in its final form. The operation, located in Northumberland County, is considered to be a Concentrated Animal Operation (CAO) under the PA Nutrient and Odor Management Act (Act 38 of 2005). The Commission is the proper authority to take action on this plan, because Northumberland County Conservation District is not delegated plan review and action responsibilities under the Act 38 program.

A brief description of the operation, concluding the staff recommendation, is attached. Also attached is a copy of the complete nutrient management plan for the operation.

Thank you for considering this plan for Commission action.

#### **Farm Descriptions**

**Neal Zimmerman NMP, Northumberland County** – The Neal Zimmerman operation is an existing poultry operation which consists of 96,000 broilers. The manure is cleaned out of the barns after each flock. The manure may be temporarily stacked at the far end of the barns before it is exported to the importer.

There is no crop fields or crop acres on this operation under management control of Neal Zimmerman. There are 70 acres on this operation with 1 acre under control of Neal Zimmerman. Farmstead is 8.0 acres. The importer is Lloyd, Nevin, and Merle Zimmerman for application of the broiler manure on known crop acres. The mortality is composed onsite with the volume less than 5 tons per year. The mortality compost is exported with the broiler manure.

The broiler animal equivalent units on the Neal Zimmerman operation is 263.30. There are no crop production acres associated to the Neal Zimmerman operation. The animal equivalent units per acre for the Neal Zimmerman operation is 263.30, classifying this operation as a concentrated animal operation under Act 38 of 2005.

The proposed NMP Neal Zimmerman indicates no needed BMPs to be implemented.

Based on my review, the NMP developed for Neal Zimmerman operation meets the requirements of the PA Nutrient and Odor Management Act and Regulations, and I therefore recommend Commission approval.

# at least 7 days prior to Board action. You may corract the Conservation District to

This NMP may be revised prior to a formal action by the Conservation District Board. The final form of the plan will be available Nutrient Management Planetermine the current status of the NMP RO. 2018 Month and Year

Version

This NMP may be revised prior to a formal

action by the Conservation District Board. The final form of the plan will be available

-FINAL FORM

determine the current status of the NMP 8 /17/20 18019 Month, Day and Year

NON-FALAL FOILIN

This NMP may 'se revised prior to a formal action by the Conservation District Board.

For Crop Year(s) 2020

2021

**Prepared For Operator's Name, Mailing Address, Telephone Number(s)** 

FINAL FORM

ision of the plan will be considered the Ov the Conservation District Board November 13, 2018 meetin

Septenber 20, 2018

NEAL ZIMMERMAN **10 PATTON ROAD** DANVILLE, PA 17821 570-271-0350

**Operation's Location Address (if different than above)** 

Site Name (CAFOs)

**Prepared By** Nutrient Management Specialist's Name, Address, Telephone Number(s)

> **Darren Shenk** Red Barn Consulting, Inc. 3050 Yellow Goose Road Lancaster, PA 17601 717-393-2176

**Nutrient Management Specialist's Program Certification Number** 1906-NMC

> Administratively Complete Date 8/17/18

> > **Plan Approval Date**

#### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)

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Nutrient Management Plan Summary (Excel)

Nutrient Management Plan Summary Notes (Excel)

Manure Spreader Calibration Notes (Excel)

Additional Nutrient Management Plan Requirements (Word)

**Operator Management Map (Mapping Program)** 

Appendix 1: Nutrient Management Plan Agreement & Responsibilities (Word)

Appendix 2: Operation Information (Word)

Appendix 3: Manure Group Information (Excel)

Appendix 4: Crop & Manure Management Information (Excel)

Appendix 5: Phosphorus Index (Excel)

Appendix 6: Manure Management (Word)

Appendix 7: Stormwater Control (Word)

Appendix 8: Importer/Broker Agreements & Nutrient Balance Sheets (Word & Excel)

Appendix 9: Operation Maps (Mapping Program)

Topographic Map

Soils Map

Appendix 10: Supporting Information & Documentation (Excel) (List below the required documents included in the plan.)

Manure average Soil description

## Nutrient Management Plan Summary

Total acres rep	orted in N	MP Summa	ry:	0		_				C	Стор Ү	ear(s)	2019	, 2020, 2	2021
Whole Farm Not	e:	100% export If manure run field. The fert manure can l field.	to Lloyd Zi is out for an ilizer require be determine	immerman , Nev y field, consult A ad on any part of ad from the 'Net	vin Zimmerman, N ppendix 4 of the pl the field that does Nutrients Required	<u>terle Zimme</u> rman an for that not receive I' for that									
Operation Acre Total Acres:	9 <b>5:</b> 70	_ Total	Acres Aval	lable For Nutrie	nt Application Un	der Operator's Cont	rol: C	)wned:	0		R	ented:	0		-
Anir	nal Equiva	alent Units:	263,30	_	Animal Eq	uivalent Units Per	Acre:	263.30	)						
							Sta Feri	arte <i>r/</i> Ot tilizer (l	her b/A)	Suj Feri	opieme iilizer (l	ntal b/A)	Nut	rient Ba (lb/A)	lance
CMU/Field ID	Acres	Сгор	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P208	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K2O	N	P2O5	К₂О

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Page - 1

#### **NMP Summary Notes**

CMU/Field (D

Notes

Crop Years 2019, 2020, 2021

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Notes Page - 1

#### Manure Spreader Calibration Notes

1				Crop Years 2019, 2020, 2021
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
NA				
		<u> </u>		
	1	1		- Aut+Ave - 1

Version 6.3 - August 2018

Manure Spreader Calibration Page - 1

## **Additional Nutrient Management Plan Requirements**

		· · · · · · · · · · · · · · · · · · ·	· •
Best Management Practice	NRCS Practice Code <sup>1</sup>	BMP Location	Implementation Season & Year
None	1		
	-		

#### **Manure Management and Stormwater BMP Implementation Summary**

1 If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank.

#### **In-Field Manure Stacking Procedures**

Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles.

This guidance applies to non-emergency related manure stacks that will remain in a field for an extended period of time (more than 2 days). This guidance applies to farms complying under Act 38, as well as the farms that import manure from these planned farms.

The regulations call for the implementation of BMPs relating to in-field manure stacking. Guidance on how to meet that requirement is as follows:

1. The regulations states that the land application of the stacked manure shall occur within 120 days of stacking or by the next growing season, whichever is less.

• Covering of manure stacks with an impermeable cover will eliminate the need to apply the manure within the 120 day, or by the next growing season, limitation.

2. The regulation also states that the location of the in-field manure stacking sites must be identified on the nutrient management plan and nutrient balance sheet maps.

3. The stacks should be rotated so that stacking will only occur once every 4 years on a specific manure stacking pile footprint.

4. Stacked piles should be stacked in a cone or windrow shape so as to shed rainwater. This shape limitation would not be necessary if, upon stacking, the stack will be covered with an impermeable cover.

5. Stacks should be setback 150 feet from streams (intermittent and perennial), lakes, ponds, open existing sinkholes, and active water wells.

6. Stacks should not be located in water concentration areas.

7. Stacks should not be located on areas that have excessively drained soils. This limitation would not be necessary if, upon stacking, the stack will be covered with an impermeable cover.

8. Stacks should not be located within 3 feet of the seasonal high water table.

9. Stacks should not be located above subsurface drain tiles. This limitation would not be necessary if, upon stacking, the stack will be covered with an impermeable cover.

10. Stacking sites should not have a slope of greater than 8%.

11. Stacking sites with slopes between 3% and 8% should not be located further than 150 feet from the top of the slope unless a diversion is constructed of soil above the stack.

The above criteria only address situations where manure is stacked in a field in order to facilitate manure application to those fields where the manure is being stacked. This guidance does not pertain to areas used for the composting of manure or dead animals.

#### **Additional CAFO Requirements**

In-field stacking criteria, winter storage requirements, and other issues identified by DEP's review of the nutrient management plan.

Not a CAFO

#### **Proposed Manure Storage Description**

Type, dimensions, volume, freeboard and location on map.

None

#### **Description of Planned Alternative Manure Technology Practices**

Type of practice, volume of manure addressed, and result of practice.

None

#### **Exported Manure Summary**

Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan.

All excess manure produced on this operation is exported to Lloyd Zimmerman/neighboring farms to be utilized for agricultural purposes.

#### **Operator Management Map**

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Operator Management Map** is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9.

## Aerial Map **Neal Zimmerman**









#### Appendix 1

#### **Nutrient Management Plan Agreement & Responsibilities**

#### **Plan Implementation Requirements**

This nutrient management plan has been developed to meet the requirements of the following programs:

L	х	Pennsylvania Act 38 of 2005	x	CAO		VAO (check one)
		Pennsylvania CAFO (Concentrated A	nimal Fe	eding C	peration	) program
		Other program:				

Plans developed under these programs are required to be implemented as approved in order to maintain compliance with the specific law or program. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions; installation of listed BMPs within implementation timeframes; and record keeping obligations of the program.

#### The nutrient management plan has been developed as a: (check one)

	1-Year Plan for Crop Year		(annual update	s will be completed)
х	3-Year Plan for Crop Years	2019	2020	2021

#### Records required to be maintained include the following:

- 1) Annual crop yields
- 2) Manure and fertilizer application rates, locations and date of application
- 3) Manure production figures for the various manure groups listed in your plan
- 4) Soil test reports (testing required every 3 years per crop management unit)
- Manure test reports (testing required once a year for each manure group) 5)
- 6) Number of animals on pasture, number of days on pasture, and hours per day on pasture
- 7} For operations exporting manure, Manure Export Sheets
- 8) BMP designs and certification for new liquid and semi-solid manure storage facilities

#### The following has been confirmed:

Verification of Ag E&S Plan

Verification of Existing Site Specific Emergency Response Plan х

Verification that owners of rented/leased lands have been notified that a nutrient management plan has been developed which calls for manure to be applied to their lands and that they have no objections to the plan requirements.

	Owners	Noti
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fied	x	

x No Rented/Leased Lands

#### **Specialist Signature**

I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the program(s) indicated above; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsi

nsworn falsification to a	ithorities.	
Specialist Signature	adares	> M
Date	8/9/2018	•

Date

Version 6.3 - August 2018

Appendix 1 - Nutrient Management Plan Agreement & Responsibilities Page 1

#### **Operator Signature**

I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

**Operator Signature** 

**Operator Title** 

Date

e Owner/Operator 8/9/2018

### Appendix 2 Operation Information

#### **Operation Description**

Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management, including atypical manure (contributing animal groups, collection, storage and handling procedures); mortality composting management.

This is an existing poultry operation which consists of 96,000 broilers. There are 70 acres on this operation but 1 acre are under the control of this operator. Farmstead is 8.0 acres. The manure is cleaned out of the barns after each flock. The manure may be temporarily stacked at the far end of the barns before it is exported to the importer. The mortality is composted on site and the volume is less than 5 tons per year. The compost is exported with the broiler manure.

#### County(s)

Northumberland

#### Name of Receiving Stream(s)/Watershed(s)

Wilson Run

#### **Notation of Special Protection Waters**

None

#### **Operation Acres**

Total Acres: 70.0

#### **Total Acres Available for Nutrient Application Under Operator's Control**

Owned: 0

Rented: 0

#### Names & Addresses of Owners of Rented or Leased Land

NA

#### **Existing Manure Storages & Capacity**

Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures.

NA

#### **Manure Application Equipment Capacity & Practical Application Rates**

Description of application equipment, practical application rates based on calibration and calibration method used,

Appendix 3 Manure Group Information Crop Yrs. 2019, 2020, 2021	Bro	ler
Manure Report Date (note if averaging several reports)	7/11/2018 (average)	
Laboratory Name	Ag Essenta's	
Manure Type	Poultry	
Manure Unit (ibsAon or 1000 gal)	Biton	
Fotal Nitrogen (N) (ibsAon or 1000 gal)	60.87	
Ammonium N (NH <sub>4</sub> -N) (Ibs/ton or 1000 gal)	8 8 3	
Total Organic N (Ibs/ton or 1000 ga!)	52 04	Go to MMP Index
Total Phosphate (P <sub>2</sub> O <sub>3</sub> ) (Ibston or 1000 gal)	37.23	Go to Accounds 3 Input
Total Potash (K <sub>2</sub> O) (Ibs.ton or 1000 gal)	40 89	Go to Manure Ava Insul
Percent Solids	63 69	Grading Calculator
PSC Value (analytical or book value)	030	_
Percent Moisture	36.31	
Manure Group AEU's	263.30	
Description: Site & Season Applied	Tempory stacking or clean out every flock	100% Export
Inventory Method	Records	
	Collected Calc.	Uncollected Calc.
Manure Group Identification	Broder	
CALCULATED: Total Manure Collected Per Manure Group Units	er 2) =	
RECORDS: Total Manure Collected Per Manure Group	600.0	
Unit	tons	
	Collected	Uncollected
Manure Used On-Farm	0.0	0.0
Units	Tons	
Manure Exported	600.0	
Units	tons	
Manure Allocation Balance	0.0	0.0
Units	Tons	
Manure Balance as a Percent of Total Manure Collected	0.0%	-
Total Rainfall and Runoff	0	-
the second se		

Version 6.3 - August 2018

Appendix 3 Manure Group Info. Page - 1

Appendix 3 Manure Group Information Crop Yrs. 2019, 2020, 2021	Bro≯er			
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values		
Animal Group 1	Bro/er			
Animai Type	Bročer, large: 0–53 days			
Animai Number	98,000			
AnimelWeight	3 55			
Animal Group AUs	340 80			
Animal Group AEUs	263 30			
Daily Manute Production net All	20.0			
Total Days Manure Produced	282	Í		
Total Manute Produced				
Days On Pasture	0			
Hours Per Day On Pasture	0			
Totał Bedźng				
Total Washwater				
CALCULATED - Total Uncollected Manura Per Animal Group				
CALCULATED-Total Manure Collected Per Animal Group		ins Mores		

Version 6.3 - August 2018

Appendix 3 Manure Group Info. Page - 2

App. 4: Crop Yrs. 2019, 2020, 2021
CMUFIELLID
Acres
Sol Test Report Date
Laboratory Name
Sol Test Leve's (Vehkch-3 P & K) (Show conversions to ppm in Appendix 10)
P Index Part A Evaluation
Part A Result
Сгор
Planned Yield
PSU Sol Test Recommendation (ib/A)
User Sol Test Recommendation ((b/A)
Other Nutrients Applied (Ib/A)
Notrients applied regardless of manute)
P Index Application Method
Double Crop CerryOver N (/b/A)
Manute History Description Residual Manute N (ib/A)
Leguma History Description Residual Legume N (ib/A)
Net Nutrients Required (Ib/A)
Manuze Group
Application Season Management (Incorporation, cover crops, etc.)
Avalability Factors (Total Nor. NH4-N & Organic N)
P Index Application Method
N Ba'anced Manure Rate (tcn, gal/A)
Р Removal Balance Manure Rate (ton or gaVA; if required by P Index)
Pinder Value
Planned Manure Rate (ton or os/A)
Nutrieots Applied al Planced Manute Rate (R/A)
Nitriest Balance after Manure
Sunciemental Ferticitet (ib/A)
Dista Andrata Hathad
n musk approxision area los
nina rezorent Barance (IDrA)
Multiple Application
Manuta Litozadina CMU

Version 6.3 - August 2018

Appendix 4 Crop & Manure Mgmt. Page 1

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Appendix 5 - P Index	No P Inde	ex Part B fi	elds in this Pla	an	Go to NMP Index
Crop Yrs. 2019, 2020, 2021	Pennsvivania P Inde	Go to App 4 Input			
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID
Is the CMU in a Special Protection watershed?		Is the CMU in a Speci	al Protection watershed?		
A significant farm management change as defined by Act 38?		If the answer is Yes to			
Soil Test Mehlich 3 P greater than 200 ppm P?	Is the Soil Test Mehlich 3 P oreater than 200 pom P? (enter soil test value in pom P) any of t				
Contribution Distance from CMU to receiving water <150 ft 2	is the Contribution Distance from this CMU to receiving water less than 150 ft 2 Part B must be use				
Is winter many a sociestion planned for this field 2		the state of the			
Pup D Index Dad B voluctarily2 (No to all Dad A quactions )	1				
PART B: SOURCE FACTORS: Mehich 3 Soil Test P (rom P)					
Soil Test Rating = 0.20' Meblich 3 Soil Test P (nom P)				,	
FERDI IZER P APPLIED REGARDLESS OF MANURE (Stater or other)	-				Fedlizer P (b P205/acre
	02	0.4	06	0.8	1.0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	Placed or injected 2" or mora deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	Incorporated >1 week or not incorporated following application in Nov March	Surface applied to frozen ( snow covered soil
SUPPLEMENTAL P FERTILIZER					Fertilizer P (Ib P205/acre
	02	0.4	0.6	0.8	1.0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	Placed or injected 2" or more deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	Incorporated >1 week or not incorporated following application in Nov March	Surface applied to frozen o snow covered soil
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod				
MANURE P RATE					Manure P (ib P205/acre
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen o snow covered soil
P SOURCE COEFFICIENT	Ref	er to: Test results for F	Source Coefficient OR Book	values from P Index Fact Sheel	Table 1
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeffi	cient	State of the second	Statistics and	a second second
Source Factor Sum	State Street		Mary and an Instantion of the		
PART B: TRANSPORT FACTORS			Soil Loss (ton/acre/yr	)	
EROSION			T		
RUNOFF POTENTIAL	Drainage Class is Excessively	2 Dreinage Class is Somewhat Excessively	Drainage Class is Well-Moderately Well	Drainage Class is Somewhat Poorly	0 Drainage Class is Poorly/Very Poorly
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Paterned
CONTRIBUTING DISTANCE	0 > 500 ft	2 350 to 500 ft	4 200 to 349 ft	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance			
MODIFIED CONNECTIVITY	0.85 50 ft. Riparian Buffer APPLIES TO DIST < 100 FT		1 0 Grassed Waterway or Nona	1.1 Direct Connection APPLIES TO DIST > 100 FT	
Transport Sum x Modified Connectivity / 24					
P Index Value = 2 x Source x Transport		1		and the second second second	a start and a start
Low 59 or less Nitrogen based management	Medicus (015.79 Nitrogen cosed	Autor 6262 79 High: 60 to 99 Very High: 100 or greater Phosphorus limited to crop removal No Poceboons ancient			

OR rapidly permeable soil near a steam
 Y' factor does not apply to fields receiving manure with a 35 ft, buffer.
 Serror Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Version 6.3 - August 2018

Appendix 5 P Index Page - 1

the data recorded during equipment calibration is to be retained on the farm. If applicable, name and Act 49 certification number of custom applicator.

All manure application is done by the importer. No manure is applied by this operator.

## Appendix 6 Manure Management

#### Date of Site Evaluation: 4/20/2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

Animal housing and compost area were evaluated.

#### **Identification of Inadequate Manure Management Practices and Conditions**

List of each specific inadequate manure management practice or condition identified.

None

#### **BMPs to Address Manure Management Problem Areas**

List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above.

None

## Appendix 7 Stormwater Control

#### Date of Site Evaluation: 4/20/2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

Animal housing, manure storage and compost area were evaluated.

#### **Identification of Critical Runoff Problem Areas**

List of each specific critical runoff problem area identified.

None

#### **BMPs to Address Critical Runoff Problem Areas**

List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above.

None

## Appendix 8 Importer/Broker Agreements & NBSs

Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan.

NBS attached for Lloyd Zimmerman

## Exporter/Importer Agreement Manure Used For Agricultural Land Application

Developed consistent with the PA Nutrient and Odor Management Act Program

<ul> <li>2) The purpose of this agreement is to set forth the mutual responsibilities and understanding of the with respect to the export of manure from the exporter to the importer.</li> <li>3) The exporter is located at (county, twp, and address): 10 Patton Road Danuille, f. Rush Twp, Northumbes land Gunty</li> <li>4) The exporter will, as the supply of manure allows, provide the following amounts of manure during seasons outlined below:</li> <li>Tons of Broiler (species) manure, per season:</li> <li>Spring GOOT Summer Fall GOOT Winter 87.8 T</li> </ul>	arties 1 17821
<ul> <li>3) The exporter is located at (county, twp, and address): <u>10 Patton Road Danwille, f</u> <u>Rush Twp</u>, <u>Northumberland</u> <u>Gunty</u></li> <li>4) The <u>exporter</u> will, as the supply of manure allows, provide the following amounts of manure during seasons outlined below: <u>Tons of Broiler</u> (species) manure, per season: <u>Spring</u> GOOT Summer</li> </ul>	1 17821
<ul> <li>4) The <u>exporter</u> will, as the supply of manure allows, provide the following amounts of manure during seasons outlined below:</li> <li><u>Tons of Broiler</u> (species) manure, per season:</li> <li>Spring GOOT Summer Fall GOOT Winter 87.8 T</li> </ul>	
Tons of Broiler (species) manure, per season:	the
Gallons of (species) manure, per season:	
Spring Summer Fall Winter	
Total planned manure exported: (supply of manure may be less than what is planned) Tons of <u>Brotlet</u> (species) manure: <u>600 Tons</u> Gallons of (species) manure:	

If multi-species are planned, please add additional lines:

- 5) The <u>importer's</u> location and other relevant information as it relates to this manure export, is as follows (maps indicating the location of importing fields must be attached to the supporting Nutrient Balance Sheets if manure is to be land applied at the importing site):
  - 570 275-5766 Phone number: a) County(s): Northumber(a b) Snydertown Address: <u>2413</u> c) Koad d) Township(s): Kush Bob Hess d) Owner(s) of the property receiving manure: Bob Campbell e) Total cropland acres managed by the importer: 700 C f) Number and type of animals raised by the importer: <u>260</u> Cows 250 g) Number of acres available for this imported manure: 28h) Other manures (type, amount) imported to the site AND/OR utilized on the site: (Note- this would include manure that is generated on the site by the Importers animals, etc.) \_\_\_\_\_\_ If other manure is generated, imported and/or utilized, is it applied to the same acres as • indicated in item "g" above (relating to "acres available"): Yes or No)

- If other manure is generated, imported and/or utilized, is it applied during the same season as the imported manure: Yes or No
- 6) The exporter will use a Manure Export Sheet to record all manure exported to the importer. These Manure Export Sheets are available from the county conservation district or the State Conservation Commission. Computer generated forms other than the manure export sheet may be used if they contain the same information as, and are reasonably similar in format to, the forms available from the State Conservation Conservation or the conservation district.
- 7) Records relating to the export of manure shall be prepared by the exporter in accordance with the following requirements of the Nutrient and Odor Management Act regulations:
  - a) A Manure Export Sheet shall be used to document all manure exports for their records
    - A copy of the Manure Export Sheet shall be provided to the importer
    - A copy of the Manure Export Sheet shall be retained on site by the exporter
  - b) When the exporter (or someone working for, or contracted by the exporter) applies the exported manure, the exporter shall maintain the following exported manure records:
    - Application dates, areas, rates and methods
  - c) Records shall be maintained by the exporter for a minimum of 3 years
  - d) A manure export informational packet (as supplied by the conservation district or State Conservation Commission) shall be provided to the importer by the time of the manure export. This information only needs to be provided once to the importer.

The manure export informational packet must include the following:

- i. Exported Manure Informational Packet Guidance Sheet
- ii. Nutrient Management Planning an Overview (Agronomy Facts 60)
- iii. Manure Management for Environmental Protection
- iv. Land Application of Manure- A supplement to the Manure Management Manual Plan Guidance
- v. Manure Export Sheet
- vi. Manure Transfer Summary Sheets
- vii. Manure Field Stacking Requirements Fact Sheet

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- 8) Where applicable, the importer shall properly store manure received from the exporter in accordance with the provisions of the Manure Management Manual and the Pa Technical Guide and shall not cause contamination of surface or ground water. This shall include manure stacked in application fields which may not be retained in fields for > 120 days unless covered or otherwise protected.
- 9) Manure received by the importer shall be applied to the land at the rate(s) and method(s) provided in the attached "Nutrient Balance Sheet(s)", or in accordance with a Nutrient Management Plan approved for the importing operation. If the importer wishes to change the lands used for imported manure, the nutrient balance sheet must be revised to reflect the changes and be submitted to the conservation district or State Conservation Commission (and DEP if the exporter is a CAFO) prior to implementing the changes.
- 10) The importer shall comply with applicable manure application setbacks for the imported manure, as outlined in the Nutrient Balance Sheet map(s).
- 11) For any lands not owned by the importer where the manure will be applied (i.e., rented lands), the importer hereby confirms that the importer has the authority to apply manure on those lands.

12) This agreement shall remain in full effect unless terminated by either party upon thirty days prior written notice to the other party. If this agreement is terminated, the exporter shall notify the county conservation district office that approved their nutrient management plan, of the termination.

Exporter Signature, Name and Date

\_\_\_\_\_(signature) EAL ZIMMERMAN (name) 2018 (date)

Importer Signature, Name and Date

<u>LLOYD B. ZIMMERMAN</u> (signature) <u>8/9/2018</u> (date)
### **Nutrient Balance Sheet**

Prepared for

2413 Snyderotwn Road, Danville, Pa 17821 570-850-9275 Lloyd Zimmerman, Nevin Zimmerman, Merle Zimmerman Prepared by

> Darren Shenk MB2-1827 3050 Yellow Goose Rd Lancaster Pa 17601 717-393-2176

Nutrient Management Specialist or Broker 2 Signature

**Date of Development** 

August 9, 2018

*Exporter Information* Neal Zimmerman 10 Patton Road Danville, PA 17821

**County of Origin** 

Northumberland

#### **Nutrient Balance Worksheet Appendices**

The following appendices need to accompany the Nutrient Balance Worksheets if applicable:

Maps of fields where manure is to applied including required manure application setbacks.

Completed P-Index spreadsheet and Winter Matrix for each crop management unit (if using Manure Plan Basis: Option 3)

#### Nutrient Balance Sheet Summary



								Starter/Other Fertilizer (Ib/A)			Su Fer	ppleme tillzer (l	ntal b/A)	Note	Nutrient Balance (Ib/A) <sup>2</sup>		
Crop Group	Fields	Acres	Grop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P2O5	K₂O	N	P101	K <sub>2</sub> O	N	P105	к,о	
Com Grain Spring	Camptell 1A-9E, Knoetie Farm 1A- 7 & 9-16, Rushtown 1-4, Hess 1-6	288 7	Corn for Grain	Brožer	Spring	Spring Spring or summer utilization-Incorporation within 5–7 days	5 tons/A	0	0	0	10	0	0	4	-130	-162	
Corn Grain after soybeans Spring	Campbell 1A-9E, Knoeble Farm 1A- 7 & 9-16, Rushtown 1-4, Hess 1-6	263.7	Corn for Grain	Broter	Spring	Spring Spring or summer ut?zation-Incorporation wthin 5–7 days	3 tons/A	0	0	o	10	0	0	0	-56	-81	
Com Sfage Spring	Campbell 1A-9E, Knoeble Farm 1A- 7 & 9-16, Rushtown 1-4, Hess 1-6	283.7	Corn for Stage	Bročer	Spring	Spring Spring or summer utilization-incorporation within 5–7 days	5 tenz/A	0	0	0	10	0	0	4	-106	-44	
Com Słage a%er A#ała Spring	Camptell 1A-9E, Knoet/e Farm 1A- 7 & 9-16, Rustkown 1-4, Hess 1-6	288.7	Corn fer Sfage	Broller	Spring	Spring Spring or summer utilization-Incorporation within 5–7 days	3 Ions/A	0	0	0	10	0	0	0	-32	37	
Small Grain Sfage/Corn Sfage double Crop Early Fat/Spring	Campbell 1A-9E, Knoeble Farm 1A- 7 & 9-16, Rushtown 1-4, Hess 1-6	288.7	Sma'l Grain Sřage	Bro≯er	Early Fail	Early Fa% Early spring ut%zation incl. winter crop in double crop system: Incorporated after 7 days or none	4:tons/A	o	0	0	50	o	0	4	-107	-8	
Sma'l Grain Słage/Corn Słage double Crop Early Fal/Spring	Campbell 1A-9E, Knoeble Farm 1A- 7 & 9-16, Rusktown 1-4, Hess 1-6	283.7	Com for S?age	Broter	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	4 tons/A	o	0	0	40	0	0	2	-176	-12	
Soyteans with Manure	Campbell 1A-9E, Knoeble Farm 1A- 7 & 9-16, Rushtown 1-4, Hess 1-6	288.7	Soybeans with Manuze	Broder	Spring	Spring: Spring or summer ut/azation-incorporation within 5–7 days	4 tons/A	0	0	0	0	0	0	0	-109	-108	
Gress tay	Campbell 1A-9E, Knoeble Farm 1A- 7 8 9-16, Rushtown 1-4, Hess 1-6	288 7	Estabished Mixed Grasses	Broßer	Early Fail	Early Fall Summer utilization with cover crop used as green manure: Incorporated after 7 days or none	4 tons/A	0	0	o	225	0	o	3	-59	136	
AfaYa with manure	Campbell 1A-9E, Knoebla Farm 1A- 7 & 9-16, Rushtown 1-4, Hess 1-6	288 7	Estabished Afafa wih Manure	Broiler	Early Fail	Early Fail. Summer utilization with cover crop used as green manure Incorporated after 7 days or none	4 tons/A	Q	0	0	o	0	0	0	-59	135	

<sup>1</sup> See Nutrient Management Plan Summary Notes

<sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

NBS Version 4.3 - January 2018 NBS Summary Page - 1

								SI Fe	tarter/Ot rtilizer (i	her MA)	Su Fer	ppleme tilizer (l	ntai b/A}	Not	ient Bal (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P205	K₂O	N	PaOs	K₂O
Sma'l Grain Sfage/Corn Sfage dout/e Crop Wirter	Rushtown 1,3,4, Hess 2,3,4,6,6	439	Small Grain Sñage	Broßer	Winter	Winten Early Spring Ut-Mzation, Small grains and established grass or legume hay	2 tors/A	0	0	0	30	0	0	o	-32	74
Small Grain Silage/Corn Silage double Crop Spring	Rushtown 1,3,4, Hess 2,3,4,5,6	439	Corn for Sfæge	Bro/er	Spring	Spring: Spring or summer LOZ ation-Incorporation after 7 days or none	2 toris/A	٥	0	0	<b>55</b>	0	0	3		
NZ Corn Grain Fail	NZ 1-4	50.7	Corn for Grain	Broler	Early Fail	Early Fait Summer utilization with no cover crop All methods of incorporation	2 tons/A	0	٥	0	45	0	0	2	-18	-40
NZ Com Grain Spring	NZ 1-4	50.7	Corn for Grain	Brođer	Spring	Spring: Spring or summer utézation-incorporation within 5–7 days	2 tons/A	0	0	0	25	o	0	3	-18	-40

<sup>1</sup> See Nutrient Management Plan Summary Notes <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

NBS Version 4.3 - January 2018 NBS Summary Page - 2

#### NBS Summary Notes

	Importing Farm:	Uoyd Zimmerman, Ne	evin Zimmerman, Merle Z	immerman	]
CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
Com Grain Spring	Corn for Grein	Bro?er	Planned role can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fartifizer needs	
Corn Grain affer soyteans Spring	Con for Grain	Beoler	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	
Corn Siage Spring	Corn for Sfage	Broðer	Pis-ned rate can be appled annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD ND be used to determine additional fertilizer needs	
Corn Siage alter AMaYa Spring	Corn for Stage	Bro?er	Planned rate can be appled annusity	Notient Balances for P205 and K20 are based on Crop Remoral and SHOULD ND be used to determine additional fertilizer needs	

NBS Version 4.3 - January 2018

NBS Summary Notes Page - 1

CHURSDAID		Manuta Crown	Dispersed Parts Martine	hutdent Dalawen Natar	
Small Grain SilageCom Silage Gouble Crop Early FatVSpring	Smail Grain Stage	Bročer	Planned rate can be app?ed annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determina additional ferbizer needs	Notes
Small Grain Srage/Corn Srage Gouble Grop Early Fai/Spring	Corn for Silaga	કલ્પેસ	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional (ett/termeeds	
Sojteans viin Marure	Soyteans with Manure	Broiter	Planned rate can be appfied annually	Norvier4 Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fortilizer needs	
Grass hay	Established Mored Grasses	Bročer	Planned rate can be appSed annuaty	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to detarmine additional forti/zer needs	
A≭జ*a జిరి గాజూ⊭ల	tabished Afafa with Dans	Broter	Planned rate can be applied ennually	12/5fent Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fett/2et needs	

NBS Summary Notes Page - 2

CNINERRID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
Sma'l Grain Silaga'Corn Silaga doubla Crop Winter	Smail Grain Słago	Bro?er	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertifizer needs	25% cover on felds with winter application, obsen a 160 ft stream settaalk and 100 ft we't settaalk
Small Grain Silaga/Corn Silaga doubla Orop Spring	Can for Slage	Bro/er	Pianned rate can be applied annually	Nutrient Balances for P205 and K20 are based on Crop Removal and SHOULD NOT be used to determine additional fetti?zer needs	
NZ Com Grain Fail	Carn for Grain	Bro?er	Planned rate can be appted annually	Nutrient Balances for P2O5 and K2O are based on Grop Removal and SHOULD NOT be used to determine additional fartifizer needs	
NZ Com Grain Spring	Corn for Grain	Bročer	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	

NBS Summary Notes Page - 3

NBS Version 4.3 - January 2018

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Appendix 3 Manure Group Information	Bro∛er					
Manure Report Date (note if averaging several reports)	7/11/2018 (average)					
Laboratory Name	Ag Essentials					
Manure Type	Poultry					
Manure Unit (ibs/ton or 1000 gal)	lb/ton					
Totel Nitrogen (N) (ibs/ton or 1000 gal)	60.87					
Ammonium N (NH <sub>c</sub> -N) (Eiston or 1000 gal)	8.83					
Total Organic N (libs/ton or 1000 gal)	52.04					
Total Phosphate (P₂O₃) (ibs:ton or 1000 gal)	37.23					
Total Potash (K₂O) (tbs.ton or 1000 gal)	40.89					
Percent Solids	63.69					
PSC Value (analytical or book value)	0.80					

#### Manure Group Information

NBS Version 4.3 - January 2018

Manure Group Info Printout Page - 1

	1			<b>-</b>									Smal Go	ein SilapeiCn	m Sface	Small Gra	in SilaasiCo	m S7ace
Nutrient Batance Sheets	¢	orn Grain Spr	ing (	Corn Grain	n after soyte:	are Spring	C:	rn Słaga Sp	ന്റ	Corn Sta	ige after Affa	a Sping	double (	Crop Early Fa	ll/Spring	<i>do∪t/</i> = 0	rop Early Fa	1/Spring
Crop Group Indentification	- Uangewarn	4-3 <u>0, 1010-</u> 0	eram ner	Carpoern	•2 <del>0, 1</del> 010601	e r en er mer	USTRUES I	HEL PORCEL	eram rev	Gerecer i		****	GENERATO		97200 (PFF	Carporn P	COL IVICU	ет алт тКҮТ .Шаан 1.Б
1 ie/35	<b>PO 16</b> .P	2637	User 1.6	20150	223 7	, Lisea 4 E	2018.5	2637	U-2016	283.7			2697		283 7			
NBS Option	Option 2	Ntrogen Re:	puisement	Option 2	Norogen Rec	quizement	Option 2	Option 2 Nitrogen Requirement		Option 2	Option 2 Natiogen Requirement		Option 211 tragen Requirement			Option 2 Natiogen Requirement		
P Batking											•			,				
Mehich 3 Sol Test P	FPT P			pom P			rem P			ppm P	j		_ F\$m P	ļ		<u>p</u> çm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for Pl	121			121			121	121		121	l		121			121		
P Index Part A Evaluation	T									ļ					<u>.</u>			
Part A Result	Pir	dex not Requ	ited	A 9	P Index not Required		Plr	idex not Rec	ju'red	PI	idex not Requ	rred	P In	DEX DOCKED	2160	P.07	are for \$255	
Crop		Corn for Gra	n	(	Corn for Gra	n	· · · · · ·	Corn for Sia	39	· ·	Corn for Sfag			sai Gran Sia	:3: :	· · ·	201101-0129	
Planned Yield		140	bu'A		140	b./A		2	) ton/A		20	ton/A	L	6 ton/A		·	20	KON'A
	ิม	P205	K2O	N	P205	K2O	N	P205	K2O	N	P205	K20	N	P205	K20	N	P205	K20
Crop Removal Recommendations (LB/A)	140	56	42	140	56	42	140	છ	160	140	60	160	102	42	156	140	80	160
Sol (est Recontretoation (GA)													0	0	<u>م</u>	0	0	0
(Listients applied regardless of manufe) D today Analyzation Method	0	0	0	0	0	0	0	0		- <sup>0</sup>		U			L			
Proble Approach (Course March 1)	0	1		0			0	1		0	1		[37]	Writer Do	ou≹fe Crop	37	Summer D	cuble Crop
Manual Mature Descention		Cochouses	h - Summer		Contruous	y SATAS		Continuou	s'y - Summer	~ ~ ~	Continuous	y - Suππer		Contruct	sly - Wrter	24	Continuous	y - Summer
Residual Manura II (IMA)	35	C	rcp	35	Ci	rép	35	C No Dec	άφ 	35	Ci	кр 1941 г. 75%		Doubl No Previ	e Crop	No Previor		e Crop ous Year
Legume History Description Residual Leguma N (ib/A)	0	No Pre/ Leg	юра Үеал рутке	40	Soytean	s, 40 bu 'A	0	NO Pra Le	уула теаг духа	40	ist yr. a tei sh	and	0	0 Legu		0	Leg	uma I
Net Nutrien's Required (Ib'A)	105	56	42	65	55	42	105	63	160	65	60	150	91	42	156	79	-27	152
Manure Group	Broder			Btoter			Brc∛er			8:0/er			Broter	Broter		Broder		
Unis	it ton			ხზიი			6100			35 <b>5</b> 00			bten		6100 N 0204 K22			
Nanure IM/zient Content	N	P205	K20	N	P205	K20	N	P205	K.20	1	P205	K20	ท	P205	K20	N	P205	K20
Rbs.ton or 1000 oa0	60 87	37 23	40 89	60 87	37 23	40 89	60 87	37.23	40.69	60 87	37 23	40.69	60 87	37 23	40 69	60 87	37.23	40.89
Application Season: Management (Incorporation, cover crops, etc.)	Spring Spr Incorpo	ang or summy ration within :	er usi zation- 5-7 dajs	Spring Spri Incorpor	ing or surativ ration within (	er utikzation- 6–7 days	Spring Spo Incorps	ing or summ ration within	ver ut∛ozation- 5–7 days	Spring Spr Incorpo	ing or summ ration within	er ut%zation- 5—7 days	Early Fail ind, wird system, ind	Early spring ter crop in do corporated an none	) utilization utilia crop tar 7 days or	Spring: Spring or summer utilization or Incorporation after 7 days or nor		er utWzatkon- lys or noria
	Total N	1544-31	Org. N	Total N	884-N	Org. N	Total N	RHAN	Org. N	Total N	N84-N	Org. N	Total N	NH4-N	Org. N	Total N	NHLR	Org. N
Availability Factors (Total N or NH4-N & Organic N)	0.30			0 30			0.30			0 30		<u> </u>	0.15	,		0.15		
Plader Application Method													Į			L.—		
N Balanced Manura Rate (ton; ps/A)		e	tons/A		4	tors/A			6 jons/A		4	tons/A		10	) tons/A		9	tons/A
P Removal Balance Manute Rate		2	tons/A		2	licos/A			2 tora/A		2	tons/A		3	I tons/A		0	tons/A
(ton or ga/A; if required by P Index)	Crop P R	enoval (io/A)	560	Crop P R	erroval (®/A)	56.0	Crop P R	etroval (XVA	0 03 (	Crop P R	enoval ('b'A'	0.03	Crop P R	emorial (&A)	122.0	Crop P R	smoval (&A)	00
Piroter Value							1											
Planced Mary ze Rate (Ing or gal/Å)	1		tons/A		3	tons/A			5 tons/A	1	3	tons/A		4	tons/A			tons/A
Nutrients Applied at Planned Manute Rate	91	165	204	55	112	123	91	165	204	55	112	123	37	149	164	37	149	164
Mithani Balance after Manure	14	-130	-162	10	-56	-81	14	-105	-44	10	-32	37	54	-107	-8	42	-176	-12
Supplemental Fertilizer (3/A)	10	0	0	10	0	0	10	0	0	10	0	0	50	0	0	40	0	0
Plader Annication Method	-			1						T						L		
Final M triest Balance (8/A)	4	-130	-162	0	-56	-81	4	-106	-44	0	-32	37	4	-107	-8	2	-176	-12
Nu (Sela Ano cation	-		· · · · · ·		•				-	1						I		
Softest or Crop Removal	- Nutrient Ba are based ( SHOULD N additional f	lances for P2 on Crop Rem IOT be used entitizer need	05 and K20 oval and to determine 3	Nutrient Balances for P20 are based on Crop Rem SHOULD NOT be used t add5onal fertilizer needs		105 and K20 oval and to determine s	D Nutrient Balances for P2O are based on Crop Remon SHOULD NOT be used to additional fertilizer meeds		205 and K20 sonal and I to determine its	Nutrient Balances for P2O5 and K2C are based on Crop Remoral and SHOULD NOT be used to determine additional fertilizer needs		Mutrient Balances for P2O5 and K2C are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		(20) Nutrient Balances for P205 and Ki are based on Crop Removal and (rise SHOULD NOT be used to determine add/constitet/ozer needs)				

Crop & Manuse Mgmt Printout Page - 1

Nutrient Balance Sheets	Scyl	beans with M	anve	1	Grass hay		A	faifa with ma	ru≉	Srr-31 Gr do	ain SiagetCo uble Crop Wi	rn Stage rter	Srtail Gr do	ain SłagałCi ubie Crop Sp	orn Sf≥gə ∺⊼ng	N	Com Grain	Fail
Crop Group Indentification	Carpoerr	A-20, 10 A-20	eraminer	CETTERT	9-32_767.5eU	eran'ine	Cargoern	NOL NOLL	01801057	D. IL					-	l		
1/2/35	1	2837	H 16	10.16	22.2.7	U16	2016	2227	U16	RUSP60A	n 1.3.4, Hess	23456	Rushtow	n 1.3.4 Hese	5 2 3 4 5 6		NZ 1-4	
NBS Option	Option 2	Ntrogen Re-	uirement	Option 2	Ntrogen Re-	quitement	Option 2	Option 2 Natiogen Requirement			Option 3 P Index Must be Completed			439 Natogen Re	guirement	Option 3 P	ndex Must b	e Completed
Р Валбор				I														
Methon 3 Soil Test P	ppm P	1		ppm P			pom P	1		tom P	[		0073 P			con P	1	
For Option 2 enter maximum Soil Test For Option 3 enter soil test for Pl	121	1		121	1		121	121		121	121		121			133		
Pindex Part A Evaluation	· • · · · · · · · · · · · · · · · · · ·	1					.L	- 164 - 17 La Constant Const Constanting	I	<1500 Wote	,		4		Farm Mont Chappe			
Part A Result	Pir	det not Reg	ired	P Index not Required		1 Ph	ndek not Red	.(red		Part B					Paim avgris Crisinge			
Crep	Scyt	teans with M	anure	Establ	shed Mixed (	Grasses	Estatilist	÷JA*a¥a w	th Marke	S-	na'l Grain S/a	ю		Corn for S/ac	28		Corn for Gra	
Planned Yield	· • · · · · · · · · · · · · · · · · · ·	40	to/A		6	too'A		(	S Ive/A		6	ton/A		20	Ltoo/A		14/	LP-A
	1 14	N P205 K20		N	P205	K20	4	P205	K20		2015	K20		P205	K20	N	8205	K10
Crop Removal Recommendations (LB/A)	128	40	56	300	90	300	300	90	300	102	42	156	140	80	160	140	56	42
Sol Test Recommendation (@/A)				I		I							<b></b>					
Other Nuttlen's Applied (-G/A) (Nuttien's applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	o	o	0	0	0	0
P index Appreation Memod						-												
Double Crop CarryOver N (IG/A)	Contours als Summer		U U	C		0	0	h. C	[ [18]	Wrter Do	Uble Crop	0	Summer C	XXXII e Crop	0	<b>a</b> "		
Residual Manure N (Ib/A)	35	CONSTRUCTS	op	35	Contributes	лу - 69121жн 10р	35	Contributio	су - зататан кор	11	Double Double	e Crop	24	Doub/	e Crop	35	Contractos	rop
Legume History Description Residual Legume II (ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year Nitte	0	No Prez Leg	ious Year pume	0	No Previ Leg	ous Year ⊾ma	o	0 No Previous Year Leguma		40	40 Soybeans, 40 bull	
Ret Notices Required (b/A)	93	40	56	265	90	300	265	90	300	91	42	156	116		I	65	56	42
Manure Group	Broker			Broder			8cc (er		•	Bro?er	•		Broker			Broter		
ປດ່າສ	lation .			6500			出ton		l biton		lation			Biton .				
Manura Nutrient Content	N	P2O5	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(ibston or 1000 gal)	60 87	37.23	40 69	60.87	37 23	40.69	60 87	37.23	40.89	60 87	37 23	40 69	60.87	37 23	40.69	60.87	37.23	40 69
Application Season: Management (Incorporation, cover crops, etc.)	Spring Spri Incorpor	ng or summe ration within 6	r utikzation- 1–7 days	Early Fa8 Summer utilization with cover crop used as green manure: Incorporated after 7 days or none			Early Fall Summer utilization with cover crop used as green manural Incorporated after 7 days or none		Winten Er Small grain	arly Spring Un is and establish or legume hay	Abzation shed grass /	Spring Spring or summer utilization Incorporation after 7 days or none		er usäzation- njs or nona	Early Fa'l: Summer utilization w cover crop: All methods of incorporation		ation with no hods of h	
Avalabity Factors	Total N	1344-34	Org. N	Total N	884-N	Org. N	Total N	NH4-N	Org, N	Total N	N84-N	Org. N	Total N	NH4-N	Org. N	Total H	NH4-N	Org. H
(Total N or NH4-N & Organic N)	0 30			0.15			0 15			0 50			0.15			0.15		
P Index Application Method										Nor-Mar. I	la incorp or in	corp > 1 wk	April Oct.∤	to incorp or in	κc∕p>1 wik	April - Oct 1	lo incorp or ir	rcorp > 1 wk
N Selanced Manure Rate (ton; gel/A)		5	tons/A		29	tons/A		29	tons/A		3	tons/A		13	tors/A		7	tons/A
P Removal Balance Manure Rate	-	1	tons/A		2	tons/A	I	2	tons/A	1 tons/A			2	tons/A		2	tons/A	
(ton or gal/A; if required by P Index)	CropPRe	(A'd') Is rone	40 0	Crop P Re	moral (it/A)	90.08	Crop P Re	stroval (RvA)	\$0.0	Crop P Re	moval (to/A)	42.0	Crcp P Re	moval (#JA)	EQ 0	Crop P Re	നഗാല് (@/A)	560
P Index Value	]										71					-	73	
Planned Manure Rate (ton or gs/A)		4	tons/A		4	tons/A	1	4	tons/A		2	tons/A		2	tons/A		2	tons/A
Nutrients Applied at Planned Manura Rate (Ib/A)	73	149	164	37	149	164	37	149	164	61	74	82	18	74	82	18	74	82
Nutrient Balance after Manure	0	-109	-10-3	228	-59	130	0	-59	138	30	-32	74	63			47	-18	-40
Supplemental Fertilizer (R/A)	0	0	0	225	0	0	0	0	0	30	0	0	95	0	0	45	0	0
P Index Application Method								·	·		I							·
Final Nutrient Balance (&/A)	0	-109	-105	3	-59	136	0	-59	135	0	-32	74	3			2	-18	-40
Vultiple Application											I							
Solitest or Crop Removal	Mutrient Bats are based or SHOULD IX additional fer	Autrient Balances for P2O5 and K2O N are based on Crop Removal and s SHOULD NOT be used to determine S existional ferthzer needs		Nutrient Balances for P2O5 and K2O N are based on Crop Removal and a SHOULD NOT be used to determine S additional fertilizer needs		Nutrient Balances for P205 and K20 are based on Crop Removal and SHOULD NOT be used to determine additional forfizzer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional ferbizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine addttonal fertilizer needs			<ul> <li>Matrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs</li> </ul>					

Crop & Manure Mgmt Printout Page - 2

Hutrient Balance Sheets	NZ Corn Grain Spring							
Crop Group Indentification								
Reids	ļ	NZ 1-4						
Acres	507							
t/BS Option	Option 3 P Index Must be Completed							
P Banking	<u> </u>							
Mehich 3 Soi Test P	ppm P							
For Option 2 enter maintrum Soft 1651 For Option 3 enter soft test for PI	133							
P Index Part A Evaluation	Far	m Mgint Char	ige					
Part A Result		Part B						
Стер		Corn for Grain	ĩ					
Planned Yield		140	tu⊭A					
Crop Removal Recommendations (LB/A)	N	P205	K20					
Sel Test Resemmendster (S/A)	- 140		-12					
Other Merach Arcsed (9/4)								
(Nutrients applied regardless of manura)	0	0	0					
P Index Application Method								
Double Crop CarryOver N (R/A)	0	Ĭ						
Varive History Description	75	Contractus	y - Suttener					
Residual Manure N (ib/A)	- 25	Cr	op					
Legume History Description Residual Legume N (%/A)	40	i, 40 t-u'A						
Not the tracts Raw (red (2/A)	65	56	42					
Manya Grove	Broller							
lla's	8.500							
Manure Nutrient Content	N	P205	K20					
Sheden or 1000 pail	60 87	37.23	40 69					
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spr Incorpo	নিয় or summe ration প্রতিনি উ	r të zator- i-7 dajs					
turbelyas Fasters	Total N	8884-8	Org. N					
(Total Nor NH4-N & Organic N)	0 30							
P Index Application Method	April - Oct	No incorporti	corp>1wk					
N Balanced Manuxe Rate (ton; gs/A)		4	tons/A					
P Removal Balance Manute Rate		2	tors/A					
(ton or gaVA; if required by P index)	Crop P R	erroval (6/A)	550					
P Index Value	1	73						
Planned Manute Rate (ton or gal/A)		2	tons/A					
Nutrients Applied at Planned Manure Rate	37	74	82					
National Balance offer Marvine	28	-18	-40					
Supplemental Fertister (&/A)	25	0	0					
Pinder Antication Method	<u> </u>		-					
Final Nutrient Balanca (Ib/A)	3	-18	-40					
Within Amiration	1							
Soil test or Crop Removal	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs							

Crop & Manure Mgmt Printout Page - 3

Phosphorus Index				Go to NBS Input	Go to NBS Index						
	Pennsylvania P Inde	ex Version 2									
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	Small Grain Silage/Corn Silag double Crop Winte					
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	al Protection watershed?			No					
A significant farm management change as defined by Act 387		Is there a significant fa	im management change as	If the answer is Yes to	No						
Soll Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehicl	h 3 P greater than 200 ppm f	any of these questions,	121						
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	Part B must be used.	Yes							
Is winter manure application planned for this field ?		Is winter manure application planned for this field ?									
Run P Index Part B voluntarity? (No to all Part A questions.)	1	Run P (ndex Part B votuntarity? (Answers are No to all Part A guestions.)									
PART B: SOURCE FACTORS: Mehlich 3 So? Test P (pom P)			Methon 3 Sof Test P (p	çm P)	,	121					
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						24					
FERTILIZER P APPLIED REGARDLESS OF MAUURE (Stater or other)					Fert/izer P (b P205%tra)	Ö					
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	02 Fileced or injected 2° or mane deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated staving application in April - October	08 Incorporated >1 week or not incorporated totowing application in Nov March	10 Sulface applied to fozen or show covered sol?	-					
SUPPLEMENTAL P FERTILIZER					Ferthzer P (± P205/acra)	0					
P DIDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	02 Piaced or injected 2° or more deep	04 Incorporated <1 week Jollowing application	0.6 Encorporated > 1 week or not incorporated fotowing application in April - October	08 Incorporated >1 week or not incorporated following application in Nov March	10 Surface applied to frozen or anow covered soll	-					
Fertilizer Rating # Fertilizer Rate x Fertilizer Application M	ethodi					0					
MANURE P RATE	1				Nanura P (5 P205/acra)	74					
NAXURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 21 or more deep	0.4 Incorporated <1 week following application	06 Incorporated > 1 week or not Incorporated following application in April - October	08 incorporated >1 weak or not n incorporated fotowing application in Nov March	10 Surface applied to frozen or snow covered sol	0.8					
P SOURCE COEFFICIENT <sup>3</sup>	Rei	ler to: Test results for P	Source Coefficient OR Boo	k values from P Index Fact Shee	Table 1	08					
Manure Rating # Manure Rate x Manure Application Metho	d x P Source Coeff	icient				47					
Source Factor Sum						71					
PART B: TRANSPORT FACTORS EROS'ON			Soil Loss (tor/acre/	y <b>r</b> )		2					
RUNOFF POTENTIAL	0 Draina ga Classis Encessively	2 Drainage Classia Somewhat Excessively	4 Dreinage Class is Viet Moderately Viet	6 Dreinage Classis Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly	4					
SUBSURFACE DRAINAGE	0 Nore		1 Random		2 <sup>1</sup> Patarred	0					
CONTRIBUTING DISTANCE	0 > 500 ft	2 350 to 600 h	4 200 to 349 ft	6 100 to 199 ft. OR < 100 ft. with 35 ft. botter	9 <sup>2</sup> < 100 R	6					
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance		1		12					
VOD/FIED CO/S/ECTIVITY	50 R R	0.65 çerien Buñer 1 DiST - < 100 FT	10 Grassed Waterway or None	1.1 Dzect Connection APPLIES	TO DIST > 100 FT	10					
Transport Sum x Modified Connectivity / 24				1		0.50					
Pinder Value # 2 x Source x Transport						71					
Low: 59 or tess Ntrogen based management	Medium: 60 to 79 Ntrogen based management	High: 60 to 99 Phosphorus Imited to cro	op removal	Very High: 100 or greater No Phosphorus apolied							

Ntrogen based management

Very High: 100 or greater No Phosphorus applied

1 OR rapidly permeable soit near a steam 2 '9' factor does not apply to fields receiving manura with a 35 ft, buffer. 3 Encer Note: if there is a manura or fertilizer rate and there is no corresponding method fector or PSC, it will display an "E".

NBS Version 4.3 - January 2018

P Index Printout Page - 1

#### Phosphorus Index

PART A: SCREENING TOOL CMU/Feld ID	NZ Com Grain Fall	NZ Corn Grain Spring
Is the CMU in a Special Protection watershed?	No	No
A sign@cant farm management change as defined by Act 38?	Yes	Yes
Soil Test Meh5ch 3 P oreater than 200 pom P?	133	133
Contribution Distance from CMU to receiving water <150 ft ?	No	No
Is winter manure apoScation planned for this field 7	No	No
Run P Index Part B voluntarity? (No to all Part A questions.)	No	No
PART B: SOURCE FACTORS: Mehich 3 Soi Test P (com P)	133	133
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	27	27
FERTILIZER P AFFLIED REGARDLESS OF MANURE (Sarter or other)	0	0
P INDEX APPLICATION METHOD OF FERTULZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	•	-
SUPPLEVENTAL P FERTILIZER	0	0
P INDEX APPLICATION METHOD OF SUFPLEMENTAL P FERTILIZER	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	D
NAVORE P RATE	74	74
MANURE APPLICATION METHOD <sup>3</sup>	06	06
P SOURCE COEFFIC-ENT <sup>3</sup>	0.8	08
Manure Rating = Manure Rate x Manure Application Metho	33	36
Source Factor Sum	63	63
PART B: TRANSPORT FACTORS	4	4
RUNOFF POTENTIAL	4	4
SUBSURFACE DRA'NAGE	0	¢.
CONTRIBUTING DISTANCE	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface	14	14
POD FIED CONVECTIVITY	1.0	1.0
Transport Sum x Modified Connectivity / 24	053	0.58
P Index Value = 2 x Source x Transport	73	73

Low: 59 or less Nirogen based management

OR représy permeable soit near a stream
 191 factor does not apply to felds receiving manure with a 35 ft buffer.
 Encritiste: if there is a manure or fertilizer rate and there is no correspondit.

NBS Version 4.3 - January 2018

P Index Printout Page - 2

Appendix 1
Operation Maps
otographs) required in Nutrient Balance Sheets must identify: roa

Maps (or aerial photographs) required in Nutrient Balance Sheets must identify: road and road names adjacent to and within the operation; field identification, boundaries and acreage; manure application setback areas and vegetated buffers and associated landscape features (streams and other water bodies, sinkholes, and active water wells or springs); and location of in-field manure stacking areas (including each site in stacking area rotation).

# Importer Map Lloyd, Nevin & Merle Zimmerman





475 237.5 0 475 Feet

## Campbell Farm - Aerial Map Importer - Lloyd Zimmerman







## Knoebel Farm - Aerial Map Importer - Lloyd Zimmerman







# Rushtown Farm - Field Map Importer - Lloyd Zimmerman



# HessFarm - Field Map Importer - Lloyd Zimmerman



### Appendix 9 Operation Maps

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Topographic Map and Soils Map** must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary.

# *Soil Map* Neal Zimmerman









# *Topo Map* Neal Zimmerman









# Appendix 10 Crop Years 2019, 2020, 2021 Supporting Information & Documentation

Includes if applicable the Rainfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates.

	Manure /	Analysis 5 Ye	ar Running Av	rerage							
Manure Average for Grop Years, 2019, 2020, 2021	Broiler										
	Average 💀	i year ago	2 years ago	3 years ago	4 years ago	5 years ago					
Manure Report Date	7/11/2018 (average)	7/11/2018 (averøge)	Jan 22 2017	Dec 15 2015							
Laboratory Nama	Ag Essentials	Ag Essentais	Ag Essentals	Ag Essentials							
Manure Type	Poultry	Poutry	Poutry	Poultry							
Manure Unit (bs.ton or 1000 gal)	lb/ton	loiton	lit-Ton	Ration							
Total Nitrogen (N) (bs/ton or 1000 gal)	60.87	45.80	83.10	53.70							
Ammonium N (NH <sub>4</sub> -N) (Ibston or 1000 gal)	8.83	11.60	5.00	9.70							
Total Organic N (isston or 1000 gal)	52.04	34.00	78.10	44.00							
Total Phosphate (P;O;) (@s/ton or 1000 gal)	37.23	34.40	70.70	6.59							
Total Polash (K <sub>2</sub> O) (ibs.ton or 1000 gal)	40.89	42 60	57.00	23.06							
Percent Solids	63.69	59.42	79.30	52.35							
PSC Value (Enter analytical or book value)	0.80	03.0	0.80	03.0		•					

# Importer Map Lloyd, Nevin & Merle Zimmerman





475

237.5

0

475 Feet

#### Map Unit Description (Brief, Generated)

Northumberland County, Pennsylvania

[Minor map unit components are excluded from this report]

Map unit: AoB - Allenwood and Washington soils, 3 to 8 percent slopes

Allenwood (50%) Component:

> The Allenwood component makes up 50 percent of the map unit. Slopes are 3 to 8 percent. This component is on valley sides, uplands. The parent material consists of old till derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Washington (30%)

The Washington component makes up 30 percent of the map unit. Slopes are 3 to 8 percent. This component is on uplands, valley sides. The parent material consists of colluvium derived from limestone and/or old glacial drift. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: BkB - Berks shaly silt loam, 3 to 8 percent slopes

Component: Berks (65%)

> The Berks component makes up 65 percent of the map unit. Slopes are 3 to 8 percent. This component is on ridges, valleys. The parent material consists of residuum weathered from shale and siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: BkC - Berks shaly silt loam, 8 to 15 percent slopes

Component: Berks (65%)

> The Berks component makes up 65 percent of the map unit. Slopes are 8 to 15 percent. This component is on ridges, valleys. The parent material consists of residuum weathered from shale and siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Map unit: BkD - Berks shaly silt loam, 15 to 25 percent slopes

Component: Berks (65%)

> The Berks component makes up 65 percent of the map unit. Slopes are 15 to 25 percent. This component is on ridges, valleys. The parent material consists of residuum weathered from shale and siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonimigated land capability classification is 4e. This soil does not meet hydric criteria.



#### Map Unit Description (Brief, Generated)

Northumberland County, Pennsylvania

Map unit: CaD - Calvin-Klinesville shaly silt loams, 15 to 25 percent slopes

#### Component: Calvin (40%)

The Calvin component makes up 40 percent of the map unit. Slopes are 15 to 25 percent. This component is on hillslopes. The parent material consists of residuum weathered from siltstone. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Klinesville (25%)

The Klinesville component makes up 25 percent of the map unit. Slopes are 15 to 25 percent. This component is on ridges, valleys. The parent material consists of residuum weathered from sillstone. Depth to a root restrictive layer, bedrock, likhic, is 10 to 20 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Map unit: HtB - Hartleton channery silt loam, 3 to 8 percent slopes

#### Component: Hartleton (75%)

The Hartleton component makes up 75 percent of the map unit. Slopes are 3 to 8 percent. This component is on -- Error in Exists On --. The parent material consists of residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: HtC - Hartleton channery silt loam, 8 to 15 percent slopes

Component: Hartleton (75%)

문화 사람이 있는 것을 다 같은 것을 하는 것 같아요. 이 나는 것은 것 같은 것 같아요. 이 나는 것 같아요. 가 나는 가 나는 것 같아요. 가 나는 것 않아요. 가 나는 것 같아요. 가 나는 것 ? ? ? 가 나는 것 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? 가 나는 요. 가 나 요. 가 나는 요. 가 나는 요. 가 나 요. 가 나 요. 가 나 요. 가 나는 요. 가 나요. 가 나 요. 가 나 요. 가 나 요. 가 나 요. 가 나는 요. 가 나 요. . 가 나 요. 가

The Hartleton component makes up 75 percent of the map unit. Slopes are 8 to 15 percent. This component is on -- Error in Exists On --. The parent material consists of residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonimigated land capability classification is 3e. This soil does not meet hydric criteria.

Map unit: HID - Hartleton channery silt loam, 15 to 25 percent slopes

Component: Hartleton (75%)

The Harlleton component makes up 75 percent of the map unit. Slopes are 15 to 25 percent. This component is on -- Error in Exists On --. The parent material consists of residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.



#### Map Unit Description (Brief, Generated)

Northumberland County, Pennsylvania

Map unit: LnB - Leck kill shaly silt loam, 3 to 8 percent slopes

Component: Leck Kill (80%)

The Leck Kill component makes up 80 percent of the map unit. Slopes are 3 to 8 percent. The parent material consists of reddish residuum derived from sedimentary rock. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: LnC - Leck kill shaly silt loam, 8 to 15 percent slopes

Component: Leck Kill (80%)

The Leck Kill component makes up 80 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillstopes. The parent material consists of reddish residuum derived from sedimentary rock. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.





#### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

**DATE:** October 12, 2018

- TO: Members State Conservation Commission
- FROM: Larry G Baum State Conservation Commission
- **SUBJECT:** Nutrient Management Plan Review John Rishel, Northumberland County, Pennsylvania

#### Action Requested

Action on a Nutrient Management Plan for the following operation in Northumberland County:

John Rishel 1710 Vincent Avenue, Watsontown, PA 17777

#### **Background**

I have completed the required review of the subject nutrient management plan listed above. Final corrections to the plan were received at the State Conservation Commission October 12, 2018. As of that date, the plan was considered to be in its final form.

The operation, located in Northumberland County, is considered to be a Concentrated Animal Operation (CAO) under the PA Nutrient and Odor Management Act (Act 38 of 2005).

The Commission is the proper authority to take action on this plan, because Northumberland County Conservation District is not delegated plan review and action responsibilities under the Act 38 program.

A brief description of the operation, concluding with the staff recommendation, is attached. Also attached is a copy of the complete nutrient management plan for the operation.

Thank you for considering this plan for Commission action.

#### **Farm Description**

**John Rishel NMP, Northumberland County** – The John Rishel agricultural operation is a custom heifer raising operation. John Rishel has operational control of Farmstead 1A, Farmstead 2 and Pasture Field P 2 for the horse.

The heifer operation consists of an average: 20 - 3 to 5-month-old calves; 40 - 5 to 8-month-old calves; 40 - 8 to 12-month-old calves; 50 - 12 to 17-month-old heifers; 50 - 17 to 23-month-old heifers, and 2 horses.

Calves and heifers are housed in a barn at Farmstead 2 year-round and do not have access to pasture. Manure from the 20 - 3 to 5-month-old calves is handled as a solid and collected in the barn. Manure from the remaining calves and heifers is handled as a liquid and stored in a 105'x 150'x 12' HDPE lined manure storage pond at Farmstead 2. One horse is kept on pasture Field 1 year-round with access to a barn at Farmstead 1A for feed and water. The other horse is kept in a barn at Farmstead 2 year-round with no access to pasture. Collected horse manure at Farmstead 1 is temporarily stacked outside of the horse barn until it is moved to Farmstead 2 and mixed with the cattle manure or added to the mortality compost pile.

All collected manure is exported to known importers in the spring and fall. Mortalities are composted at Farmstead 2. Mortality compost is mixed with solid cattle manure and exported to known manure importers when needed.

The operation consists of a total of 85 acres of cropland of which 28 acres are typically managed as hay land, 7.9 acres of pasture and 7.9 acres of farmstead. Mr. Rishel rents all 85 acres of owned cropland to Gary Truckenmiller and Mr. Rishel does not have management control of these acres. Mr. Rishel also rents 6.9 acres of pasture, (Field P1) and 0.7 acres' farmstead (Farmstead 1B) to Mervin B Hostetter. Mr. Rishel also does not have operational control of these acres. Mr. Hostetter operates a dairy farm on the rented acres from Mr. Rishel. Mr. Hostetter has his own separate Nutrient Management Plan for the dairy.

The current crop rotation used by Mr. Truckenmiller for the acres rented from Mr. Rishel is the following: one year corn silage with a small grain silage cover crop, one year of soybeans, one year wheat, and four years' alfalfa all established by no-till methods. Pasture reseedings are also established by no-till.

The combined animal equivalent units on the John Rishel operation is 148.77, Classifying this operation as a concentrated animal operation under Act 38 of 2005.

The proposed NMP for John Rishel indicates no BMPs need to be implemented,

Based on my review, the NMP amendment developed for John Rishel, operation meets the requirements of the PA Nutrient and Odor Management Act and Regulations, and I therefore recommend Commission approval.

# NON-FINAL FORM

This NMP may be revised prior to a formal action by the Conservation District Board.

at least 7 days prior to Board action. You

may contact the Conservation District to

Nutrient Management Planthe final form of the plan will be available

### NON-FINAL FORM

This NMP may be revised prior to a formal action by the Conservation District Oldard. The final form of the plan will be available at least 7 days prior to Beard action. You may contact the Conservation District to

For Crop Year(s) 2020

2021

determine the current status of the NMP October 12, 20/8 Month, Day and Year

#### **Prepared For**

determine the current status of cheperator's Name, Mailing Address, Telephone Number(s) September 25, 2018 Month, Day and YearJohn Rishel, 1710 Vincent Avenue, Watsontown, PA 17777

570-412-6675

**Operation's Location Address (if different than above)** Same

FINAL FORM

This version of the plan will be considered for action by the Conservation District Board at their November 13, 2018 meeting

October 12, 2018 MONTH, DAY AND YEAR

Site Name (CAFOs)

N/A

**Prepared By** Nutrient Management Specialist's Name, Address, Telephone Number(s)

Todd C. Rush

TeamAg Inc. 120 Lake Street Ephrata, PA 17522 570-764-7003

Nutrient Management Specialist's Program Certification Number #988-NMC

#### Administratively Complete Date

9/25/18

Plan Approval Date

#### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)



Version 6.2 - June 2018

#### NON-FINAL FORM

Version Version Version Version Version Version be revised prior to a formal version by the Conservation District Board. The final form of the plan will be available at the statistic version. You

may contact the Conservation District ro

#### **Table of Contents**

Nutrient Management Plan Summary (Excel)

Nutrient Management Plan Summary Notes (Excel)

Manure Spreader Calibration Notes (Excel)

Additional Nutrient Management Plan Requirements (Word)

**Operator Management Map (Mapping Program)** 

Appendix 1: Nutrient Management Plan Agreement & Responsibilities (Word)

Appendix 2: Operation Information (Word)

Appendix 3: Manure Group Information (Excel)

Appendix 4: Crop & Manure Management Information (Excel)

Appendix 5: Phosphorus Index (Excel)

Appendix 6: Manure Management (Word)

Appendix 7: Stormwater Control (Word)

Appendix 8: Importer/Broker Agreements & Nutrient Balance Sheets (Word & Excel)

Appendix 9: Operation Maps (Mapping Program)

Topographic Map

Soils Map

Appendix 10: Supporting Information & Documentation (Excel) (List below the required documents included in the plan.)

**Growing Animal Weight Calculator** 

**Emergency Response Plan** 

MACT LANIT-NOV

Version Version Version Process reported formal action by the Conservation District Process The Bird form of the plan with the evaluable at least 7 days prior to board arrivat. Yea may contact the Conservation District to determine the current status of the MMP

Month, Day and Year

### **Nutrient Management Plan**

#### For Crop Year(s)

2019

2020

2021

#### **Prepared For**

**Operator's Name, Mailing Address, Telephone Number(s)** 

John Rishel, 1710 Vincent Avenue, Watsontown, PA 17777 570-412-6675

**Operation's Location Address (if different than above)** 

Same

Site Name (CAFOs)

N/A

### **Prepared By** Nutrient Management Specialist's Name, Address, Telephone Number(s)

Todd C. Rush

TeamAg Inc. 120 Lake Street Ephrata, PA 17522 570-764-7003

Nutrient Management Specialist's Program Certification Number #988-NMC

#### **Administratively Complete Date**

#### **Plan Approval Date**

#### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)



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#### Topographic Map

Soils Map

Appendix 10: Supporting Information & Documentation (Excel) (List below the required documents included in the plan.)

Growing Animal Weight Calculator

Emergency Response Plan

### Nutrient Management Plan Summary

Total acres reported in NMP Summary: 1.0										(	Crop Y	ear(s)	2019		
Whole Farm Not	e: S Ti fi n fi	See Appendix 8 for manure export details. If manure runs out for any field, consult Appendix 4 of the plan for that field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.													
Operation Acre Total Acres: Anii	es: 100.8 mal Equivale	Tota ent Units:	I Acres Avai	lable For Nutrie	nt Application Ur Animal Ec	nder Operator's Cont uuivalent Units Per	rol: C Acre:	<b>Dwned:</b>	1		_ R	ented:	0		-
			_			Starter/Other Fertilizer (lb/A)			Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>			
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O

		-	Group	Season	Management	Rate'										
P2	1	Established Pasture (without legume)	Farmstead 1A Horse - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing S N	See Notes	0	0	0	77	0	0	0	-28	-50

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess
	Crop Years 2019
CMU/Field ID	Notes
P2	This field is managed as permanent pasture. An average of 1 horse will have access to this pasture for an average of 12 hours per day year round or equivalent. Water and supplemental feed are provided in the horse barn.

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

## Manure Spreader Calibration Notes

1				Crop Years 2019
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
This appendix is not relevant to this farm situation because no manure is mechanically applied on this operation.	N/A	N/A	N/A	N/A

## Nutrient Management Plan Summary

Total acres rep	orted in NM	MP Summa	ary:	1.0						(	Crop Y	ear(s)	2020		
Whole Farm Note	e:	See Append If manure ru field. The fe manure can field.	dix 8 for mar ins out for any rtilizer require be determine	v field, consult A d on any part of d from the 'Net	ails. ppendix 4 of the pl the field that does Nutrients Required	an for that not receive ' for that									
Operation Acre Total Acres: Anir	es: 100.8 mal Equiva	Tota lent Units:	I Acres Avai	lable For Nutrie	nt Application Ur Animal Ec	nder Operator's Cont uuivalent Units Per	rol: C Acre:	<b>)wned:</b>	<u>1</u>		R	ented:	0		-
CMU/Field ID	Acres	Crop	Manure Group	- Application Season	Application Management	Planned Manure	Sta Fert	arter/Ot tilizer (I P <sub>2</sub> O <sub>5</sub>	her b/A) K₂O	Suj Feri	opleme tilizer (I P <sub>2</sub> O <sub>5</sub>	ntal b/A) K₂O	Nutr N	ient Ba (Ib/A) <sup>2</sup> P <sub>2</sub> O <sub>5</sub>	lance K <sub>2</sub> O

		-	Group	Season	Management	Rate'									
P2	1	Established Pasture (without legume)	Farmstead 1A Horse - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing Se No	ee otes	0	0 0	77	0	0	0	-28	-50

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

	Crop Years 2020
CMU/Field ID	Notes
P2	This field is managed as permanent pasture. An average of 1 horse will have access to this pasture for an average of 12 hours per day year round or equivalent. Water and supplemental feed are provided in the horse barn.

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

## Manure Spreader Calibration Notes

1				Crop Years 2020
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
This appendix is not relevant to this farm situation because no manure is mechanically applied on this operation.	N/A	N/A	N/A	N/A

## Nutrient Management Plan Summary

Total acres rep	orted in NI	MP Summa	ary:	1.0						(	Crop Y	ear(s)	2021		
Whole Farm Not	e:	See Appen If manure ru field. The fe manure can field.	dix 8 for mar ins out for any rtilizer require be determine	v field, consult A d on any part of d from the 'Net	ails. ppendix 4 of the pl the field that does Nutrients Required	an for that not receive l' for that									
Operation Acre Total Acres:	es: 100.8 mal Equiva	Tota	II Acres Avai	lable For Nutrie	ent Application Ur Animal Fo	nder Operator's Cont nuivalent Units Per	rol: C Acre:	<b>)wned:</b>	<u>1</u>		_ R	ented:	0		-
CMU/Field ID		Cross	Manure	- Application	Application	Planned Manure	Sta Fert	arter/Or tilizer (	iher lb/A)	Su Fer	ppleme tilizer (I	ntal b/A)	Nutr	ient Ba (Ib/A) <sup>2</sup>	lance

			Group	Season	Management	Rate	•									
P2	1	Established Pasture (without legume)	Farmstead 1A Horse - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	77	0	0	0	-28	-50

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

	Crop Years 2021
CMU/Field ID	Notes
P2	This field is managed as permanent pasture. An average of 1 horse will have access to this pasture for an average of 12 hours per day year round or equivalent. Water and supplemental feed are provided in the horse barn.

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

## Manure Spreader Calibration Notes

1				Crop Years 2021
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
This appendix is not relevant to this farm situation because no manure is mechanically applied on this operation.	N/A	N/A	N/A	N/A

## **Additional Nutrient Management Plan Requirements**

#### Manure Management and Stormwater BMP Implementation Summary

Best Management	NRCS Practice	BMP Location	Implementation
Practice	Code <sup>1</sup>		Season & Year
None	N/A	N/A	N/A

1 If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank.

#### **In-Field Manure Stacking Procedures**

Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles.

This operation does not field stack manure.

#### **Additional CAFO Requirements**

In-field stacking criteria, winter storage requirements, and other issues identified by DEP's review of the nutrient management plan.

This operation is not a CAFO.

#### **Proposed Manure Storage Description**

Type, dimensions, volume, freeboard and location on map.

There are no manure storages proposed for this operation.

#### **Description of Planned Alternative Manure Technology Practices**

Type of practice, volume of manure addressed, and result of practice.

There are no alternative manure technology practices planned for this operation.

#### **Exported Manure Summary**

Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan.

Liquid and solid cattle manure is exported to known manure importers for application on cropland.

#### **Operator Management Map**

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Operator Management Map** is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9.

## John Rishel Operator Management Map



#### Appendix 1

#### Nutrient Management Plan Agreement & Responsibilities

#### **Plan Implementation Requirements**

This nutrient management plan has been developed to meet the requirements of the following programs:

Х	Pennsylvania Act 38 of 2005	Х	CAO		VAO (check one)					
	Pennsylvania CAFO (Concentrated Animal Feeding Operation) program									
	Other program:									

Plans developed under these programs are required to be implemented as approved in order to maintain compliance with the specific law or program. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions; installation of listed BMPs within implementation timeframes; and record keeping obligations of the program.

#### The nutrient management plan has been developed as a: (check one)

	1-Year Plan for Crop Year		(annual updates will be completed)		
Х	3-Year Plan for Crop Years	2019	2020	2021	

#### Records required to be maintained include the following:

1) Annual crop vields

Х Х

- 2) Manure and fertilizer application rates, locations and date of application
- 3) Manure production figures for the various manure groups listed in your plan
- 4) Soil test reports (testing required every 3 years per crop management unit)
- 5) Manure test reports (testing required once a year for each manure group)
- 6) Number of animals on pasture, number of days on pasture, and hours per day on pasture
- 7) For operations exporting manure, Manure Export Sheets
- 8) BMP designs and certification for new liquid and semi-solid manure storage facilities

#### The following has been confirmed:

Verification of Ag E&S Plan

Verification of Existing Site Specific Emergency Response Plan

Verification that owners of rented/leased lands have been notified that a nutrient management plan has been developed which calls for manure to be applied to their lands and that they have no objections to the plan requirements.

X Owners No
-------------

- tified
- No Rented/Leased Lands

#### **Specialist Signature**

I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the program(s) indicated above; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

**Specialist Signature** 

Tock (1)

Date

)7/	31/	18

#### **Operator Signature**

I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

Operator Signature	John mill	
Operator Title	AUNER AUNER	
Date	9/1/18	

Version 6.2 - June 2018

Appendix 1 - Nutrient Management Plan Agreement & Responsibilities Page 2

## Appendix 2 Operation Information

#### **Operation Description**

Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management, including atypical manure (contributing animal groups, collection, storage and handling procedures); mortality composting management.

John Rishel operates a custom heifer raising farm in Northumberland County, PA. The operation consists of a total of 85 acres of cropland of which 28 acres are typically managed as hayland, 7.9 acres of pasture and 7.9 acres of farmstead. Mr. Rishel rents all 85 acres of owned cropland to Gary Truckenmiller and is not under management control of theses acres. Mr. Rishel also rents 6.9 acres of pasture (field P1) and 0.7 acres of farmstead (Farmstead 1B) to Mervin B. Hostetler and is not under management control of these acres. Mr. Hostetler operates a dairy cattle herd at the acres he rents from Mr. Rishel and has his own separate nutrient management plan for his operation. After accounting for the acres that are rented to other operators, Mr. Rishel has management control of only Farmstead 1A, Farmstead 2 and pasture field P2. The current crop rotation used by Mr. Truckenmiller at the rented cropland is one year of corn silage with a small grain silage cover crop followed by one year of soybeans, one year of wheat and four years of alfalfa. All crops are established using no-till planting methods. Pasture reseedings are also completed using no-till planting methods. The livestock operation consists of an average of 20 - 3 to 5 month old calves, 40 - 5 to 8 month old calves, 40 - 8 to 12 month old calves, 50 – 12 to 17 month old heifers, 50 – 17 to 23 month old heifers and 2 horses. Calves and heifers are housed in a barn at Farmstead 2 and do not have access to pasture. Manure from the 20 - 3 to 5 month old calves is collected as a solid and accumulates in the barn. Manure from the remaining calf and heifer groups is collected together, handled as a liquid and stored in a HDPE lined manure storage pond at Farmstead 2. One horse is kept on pasture field P1 year round and has access to a barn at Farmstead 1A for feed and water. The other horse is kept in a barn at Farmstead 2 year round and does not have access to pasture. Collected horse manure at Farmstead 1A is temporarily stacked outside of the horse barn until it is moved to Farmstead 2 and mixed with solid cattle manure or added to the mortality compost pile. Collected horse manure at Farmstead 2 is mixed with solid cattle manure or added to the mortality compost pile. All collected manure is exported to known manure importers in the spring and fall. Mortalities are composted at Farmstead 2. Mortality compost is mixed with collected solid cattle manure and exported to known manure importers when needed.

## County(s)

Northumberland County / Delaware Township

#### Name of Receiving Stream(s)/Watershed(s)

Unnamed Tributary to Warrior Run – WWF

#### **Notation of Special Protection Waters**

None

#### **Operation Acres**

Total Acres: 100.8 acres

#### **Total Acres Available for Nutrient Application Under Operator's Control**

Owned: 1.0 acre

Rented: 0 acres

#### Names & Addresses of Owners of Rented or Leased Land

None

#### **Existing Manure Storages & Capacity**

Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures.

A 105' x 150' x 12' HDPE lined manure storage pond exists on the operation. The storage has a usable capacity of 793,821 gallons when accounting for a 1 foot freeboard and the volume of a 25 year / 24 hour storm event. No bedding, waste water or runoff water is added to the storage. Manure is transferred from the calf and heifer barn to the bottom of the storage using a gravity flow pipe system. The storage is fully agitated during manure removal. Manure is pumped directly from the storage into manure application equipment. The majority of the manure is removed from the storage each time it is emptied; however all a small amount of liquid manure remains in the bottom of the storage each time it is emptied. Manure samples are to be collected while the storage is being emptied in the spring and fall for a total of two separate samples per year. Several manure samples should be taken while the storage is being emptied and combined into one representative sample that is submitted for analysis.

#### **Manure Application Equipment Capacity & Practical Application Rates**

Description of application equipment, practical application rates based on calibration and calibration method used, the data recorded during equipment calibration is to be retained on the farm. If applicable, name and Act 49 certification number of custom applicator.

This appendix is not relevant to this farm situation because no manure is mechanically applied on this operation.

Appendix 3 Manure Group Information Crop Yrs. 2019	Liquid M	anure	Solid Manure		
Manure Report Date (note if averaging several reports)	July 9, 2018		July 9, 2018		
Laboratory Name	Waypoint Analytical		Waypoint Analytical		
Manure Type	Dairy		Dairy		
Manure Unit (Ibs/ton or 1000 gal)	lb/1000 gal	_	lb/ton		
Total Nitrogen (N) (lbs/ton or 1000 gal)	29.68	_	10.67		
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	15.71		5.40	_	
Total Organic N (lbs/ton or 1000 gal)	13.97	Go to NMP Index	5.27		
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	15.20	Go to Appendix 3 Input	10.02		
Total Potash (K <sub>2</sub> O) (Ibs/ton or 1000 gal)	37.70	Go to Manure Avg Input	16.83		
Percent Solids	5.28	Grazing Calculator	30.70		
PSC Value (analytical or book value)	0.80		0.80		
Percent Moisture	94.72		69.30		
Manure Group AEU's	140.37		8.40		
Description: Site & Season Applied	HDPE Lined Pond	Spring & Fall Export	Heifer Barn	Spring & Fall Export	
Inventory Method	Records		Records		
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	
Manure Group Identification	Liquid Manure		Solid Manure	Solid Manure - uncollected	
CALCULATED: Total Manure Collected Per Manure Group				5.5	
RECORDS: Total Manure Collected Per Manure	520,000.0		150.0	TONS	
Group					
Unit	gallons		tons		
	Collected	Uncollected	Collected	Uncollected	
Manure Used On-Farm	0.0	0.0	0.0	5.5	
Units			1005	TONS	
Manure Exported	020,000.0		topo		
Units	gailons		IUIIS		
Manure Allocation Balance	0.0	0.0	0.0	0.0	
Units	Gallons		Tons	Tons	
Manure Balance as a Percent of Total Manure Collected	0.0%		0.0%		
Total Rainfall and Runoff	0		0		
	gallons		tons		

Appendix 3 Manure Group Information Crop Yrs. 2019	Liquid Ma	anure	Solid Ma	anure	
	Manure Generation per		Solid Manure		
Ν	Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	
Animal Group 1	5 to 8 Month Calf		3 to 5 Month Calf		
Animal Type	Calf: 5-8 mo.		Calf: 3-5 mo.		
Animal Number	40		20	-	
Animal Weight	448		310		
Animal Group AUs	17.92		6.20		
Animal Group AEUs	17.92		6.20		
Daily Manure Production	9.2		80.0		
Total Days Manure Produced	365		365	-	
Total Manure Produced				-	
Days On Pasture	0		0		
Hours Per Day On Pasture	0		0		
Total Bedding				Grazing Calculator	
Total Washwater					
CALCULATED - Total Uncollected Manure Per Animal Group CALCULATED-Total Manure Collected Per Animal Group		App 3 Input		-	
Animal Group 2	8 to 12 Month Calf		Farmstead 1A Horse	Farmstead 1A Horse	
Animal Type	Calf: 8-12 mo.		Light Horse Mature	- uncollected Total Nitrogen	
Animal Number	40		1	12.00	
Animal Weight	640		1100	Total Phosphate (P2O5) lbs/ton	
Animal Group AUs	25.60		1.10	5.00	
Animal Group AEUs	25.60		1.10	Total Potash (K2O) lbs/ton	
Daily Manure Production	9.2		55.0	9.00	
Total Days Manure	365		365	PSC Value	
Total Manure Produced				0.80	
Days On Pasture	0		365		
Hours Per Day On Pasture	0		12		
Total Bedding					
Total Washwater					
CALCULATED - Total Uncollected Manure Per Animal Group CALCULATED-Total Manure Collected Per Apimel Croup			5.5	6 - Tons	

Appendix 3 Manure Group Information Crop Yrs. 2019	Liquid M	anure	Solid Manure		
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	
Animal Group 3	12 to 17 Month Heifer		Farmstead 2 Horse		
Animal Type	Heifer: 12-17 mo.		Light Horse Mature		
Animal Number	50		1		
Animal Weight	854		1100		
Animal Group AUs	42.70		1.10		
Animal Group AEUs	42.70		1.10		
Daily Manure Production	6.9		55.0		
Total Days Manure Produced	365	-	365		
Total Manure Produced					
Days On Pasture	0	_	0	_	
Hours Per Day On Pasture	0		0		
Total Bedding		_			
Total Washwater					
CALCULATED - Total Uncollected Manure Per Animal Group					
CALCULATED-Total Manure Collected Per					
Animal Group		App 3 Input			
Animal Group 4	17 to 23 Month Heifer				
Animal Type	Heifer: 17-23 mo.				
Animal Number	50				
Animal Weight	1083				
Animal Group AUs	54.15				
Animal Group AEUs	54.15				
Daily Manure Production	6.9				
Total Days Manure Produced	365				
Total Manure Produced					
Days On Pasture	0				
Hours Per Day On Pasture	0				
Total Bedding					
Total Washwater					
CALCULATED - Total Uncollected Manure Per Animal Group					
Manure Collected Per		App 3 Input			

Appendix 3 Manure Group Information Crop Yrs. 2020	Liquid M	anure	Solid Manure		
Manure Report Date (note if averaging several reports)	July 9, 2018		July 9, 2018		
Laboratory Name	Waypoint Analytical		Waypoint Analytical		
Manure Type	Dairy		Dairy		
Manure Unit (Ibs/ton or 1000 gal)	lb/1000 gal		lb/ton	_	
Total Nitrogen (N) (lbs/ton or 1000 gal)	29.68	_	10.67		
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	15.71		5.40	_	
Total Organic N (lbs/ton or 1000 gal)	13.97	Go to NMP Index	5.27		
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	15.20	Go to Appendix 3 Input	10.02		
Total Potash (K <sub>2</sub> O) (Ibs/ton or 1000 gal)	37.70	Go to Manure Avg Input	16.83		
Percent Solids	5.28	Grazing Calculator	30.70		
PSC Value (analytical or book value)	0.80		0.80		
Percent Moisture	94.72		69.30		
Manure Group AEU's	140.37		8.40		
Description: Site & Season Applied	HDPE Lined Pond	Spring & Fall Export	Heifer Barn	Spring & Fall Export	
Inventory Method	Records		Records		
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	
Manure Group Identification	Liquid Manure		Solid Manure	Solid Manure - uncollected	
CALCULATED: Total Manure Collected Per Manure Group				5.5	
RECORDS: Total Manure Collected Per Manure	520,000.0		150.0	1015	
Group	aollono		tone		
Unit	gailons	Lincollected	Collected	Lippolicated	
Manura Lload On Form		Oncollected	Collected	5.5	
	Gallons	0.0	Tons	Tops	
Manure Exported	520,000.0		150.0		
	gallons		tons		
Office	0.0	0.0	0.0	0.0	
Manure Allocation Balance	0.0	0.0	0.0	0.0	
Units	Gallons		Tons	Tons	
Percent of Total Manure Collected	0.0%		0.0%		
Total Rainfall and Runoff	0		0		
	gallons		tons		

Appendix 3 Manure Group Information Crop Yrs. 2021	Liquid M	anure	Solid Manure		
Manure Report Date (note if averaging several reports)	July 9, 2018		July 9, 2018		
Laboratory Name	Waypoint Analytical		Waypoint Analytical		
Manure Type	Dairy		Dairy		
Manure Unit (Ibs/ton or 1000 gal)	lb/1000 gal		lb/ton	_	
Total Nitrogen (N) (lbs/ton or 1000 gal)	29.68	_	10.67		
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	15.71		5.40	_	
Total Organic N (lbs/ton or 1000 gal)	13.97	Go to NMP Index	5.27		
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	15.20	Go to Appendix 3 Input	10.02		
Total Potash (K <sub>2</sub> O) (Ibs/ton or 1000 gal)	37.70	Go to Manure Avg Input	16.83		
Percent Solids	5.28	Grazing Calculator	30.70		
PSC Value (analytical or book value)	0.80		0.80		
Percent Moisture	94.72		69.30		
Manure Group AEU's	140.37		8.40		
Description: Site & Season Applied	HDPE Lined Pond	Spring & Fall Export	Heifer Barn	Spring & Fall Export	
Inventory Method	Records		Records		
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	
Manure Group Identification	Liquid Manure		Solid Manure	Solid Manure - uncollected	
CALCULATED: Total Manure Collected Per Manure Group				5.5	
RECORDS: Total Manure	520,000.0		150.0	TONS	
Group					
Unit	gallons		tons		
	Collected	Uncollected	Collected	Uncollected	
Manure Used On-Farm	0.0	0.0	0.0	5.5	
Units	Gallons		lons	Ions	
Manure Exported	520,000.0		150.0		
Units	gailons		tons		
Manure Allocation Balance	0.0	0.0	0.0	0.0	
Units	Gallons		Tons	Tons	
Manure Balance as a Percent of Total Manure Collected	0.0%		0.0%		
Total Rainfall and Runoff	0		0		
	gallons		tons		

Manure Analysis 5 Year Running Average						
Manure Average for Crop			Liquid Ma	anure		
Years. 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago
Manure Report Date	Jul 09 2018	Jul 09 2018	May 29 2018	Mar 09 2012		
Laboratory Name	Waypoint Analytical	Waypoint Analytical	Agri Analysis	CVAS		
Manure Type	Dairy	Dairy	Dairy	Dairy		
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal	lb/1000 gal	lb/1000 gal		
Total Nitrogen (N) (lbs/ton or 1000 gal)	29.68	21.50	24.83	42.70		
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	15.71	9.10	16.46	21.57		
Total Organic N (lbs/ton or 1000 gal)	13.97	12.40	8.37	21.13		
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	15.20	8.60	16.94	20.07		
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	37.70	26.30	33.41	53.40		
Percent Solids	5.28	2.70	5.30	7.84		
PSC Value (Enter analytical or book value)	0.80	0.80	0.80	0.80		

Manure Average for Crop			Solid Ma	nure		
Years. 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago
Manure Report Date	Jul 09 2018	Jul 09 2018	Apr 16 2015			
Laboratory Name	Waypoint Analytical	Waypoint Analytical	Agri Analysis			
Manure Type	Dairy	Dairy	Dairy			
Manure Unit (lbs/ton or 1000 gal)	lb/ton	lb/ton	lb/ton			
Total Nitrogen (N) (lbs/ton or 1000 gal)	10.67	7.02	14.31			
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	5.40	3.34	7.45			
Total Organic N (lbs/ton or 1000 gal)	5.27	3.68	6.86			
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	10.02	9.29	10.74			
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	16.83	19.80	13.85			
Percent Solids	30.70	26.80	34.60			
PSC Value (Enter analytical or book value)	0.80	0.80	0.80			

App. 4: Crop Yrs. 2019	P2			
CMU/Field ID				
Acres		1.0		
Soil Test Report Date		July 9, 2018		
Laboratory Name	W	aypoint Analyti	cal	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	
(Show conversions to ppm in Appendix 10)	296	344	7.2	
P Index Part A Evaluation		Soil Test P		
Part A Result		Part B		
Crop	Established	d Pasture (with	out legume)	
Planned Yield		2.5	ton/A	
DCI   Coil Toot Decommondation (Ib (A)	Ν	P2O5	K2O	
PSU Soli Test Recommendation (Ib/A)	125	0	0	
User Soil Test Recommendation (lb/A)				
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	
P Index Application Method				
Double Crop CarryOver N (Ib/A)	0			
Manure History Description Residual Manure N (Ib/A)	35	Continuously - Summer Crop		
Legume History Description Residual Legume N (Ib/A)	0 No Previous Year Legume			
Net Nutrients Required (lb/A)	90 0 0		0	
Manure Group	Farmstead 1A Horse - Uncollected			
Application Season: Management (Incorporation, cover crops, etc.)	Grazing an duri	nytime with nutr ng growing sea	ient uptake ason	
	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			
P Index Application Method	Surface app	. when frozen/s	now covered	
N Balanced Manure Rate (ton; gal/A)		38	tons/A	
P Removal Balance Manure Rate	8 tons/A			
(ton or gal/A; If required by P Index)	Crop P Removal (Ib/A) 37.5			
P Index Value	29			
Planned Manure Rate (ton or gal/A)	5.5 tons/A			
Nutrients Applied at Planned Manure Rate (lb/A)	13	28	50	
Nutrient Balance after Manure	77	-28	-50	
Supplemental Fertilizer (Ib/A)	77	0	0	
P Index Application Method				
Final Nutrient Balance (Ib/A)	0	-28	-50	
Multiple Application	· ·			
Manure I tilized on CMI I		6	tons	
	1	0	10113	

App. 4: Crop Yrs. 2020	P2							
CMU/Field ID								
Acres		1.0						
Soil Test Report Date		July 9, 2018						
Laboratory Name	Wa	aypoint Analytic	cal					
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН					
(Show conversions to ppm in Appendix 10)	296	344	7.2					
P Index Part A Evaluation		Soil Test P						
Part A Result		Part B						
Crop	Established	d Pasture (with	out legume)					
Planned Yield		2.5	ton/A					
	N	P2O5	K2O					
PSU Soli Test Recommendation (ID/A)	125	0	0					
User Soil Test Recommendation (lb/A)								
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0					
P Index Application Method								
Double Crop CarryOver N (Ib/A)	0							
Manure History Description Residual Manure N (Ib/A)	35 Continuously - Summ Crop							
Legume History Description Residual Legume N (lb/A)	0 No Previous Year Legum							
Net Nutrients Required (lb/A)	90	0	0					
Manure Group	Farmstead 1A	Horse - Uncol	llected					
Application Season: Management (Incorporation, cover crops, etc.)	Grazing an duri	ytime with nutr ng growing sea	ient uptake ason					
Availability Eastern	Total N	NH4-N	Org. N					
(Total N or NH4-N & Organic N)	0.20							
P Index Application Method	Surface app	when frozen/s	now covered					
N Balanced Manure Rate (ton; gal/A)		38	tons/A					
P Removal Balance Manure Rate		8	tons/A					
(ton or gal/A; If required by P Index)	Crop P F	Removal (Ib/A)	37.5					
P Index Value		29						
Planned Manure Rate (ton or gal/A)		5.5	tons/A					
Nutrients Applied at Planned Manure Rate (Ib/A)	13	28	50					
Nutrient Balance after Manure	77	-28	-50					
Supplemental Fertilizer (Ib/A)	77	77 0						
P Index Application Method		-						
Final Nutrient Balance (Ib/A)	n	-28	-50					
Multiple Application	- ·							
Manure Utilized on CMU		6	tons					
	1	0						

App. 4: Crop Yrs. 2021	P2							
CMU/Field ID								
Acres		1.0						
Soil Test Report Date		July 9, 2018						
Laboratory Name	Wa	aypoint Analytic	cal					
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН					
(Show conversions to ppm in Appendix 10)	296	344	7.2					
P Index Part A Evaluation		Soil Test P						
Part A Result		Part B						
Crop	Established	d Pasture (with	out legume)					
Planned Yield		2.5	ton/A					
	N	P2O5	K2O					
PSU Soli Test Recommendation (IB/A)	125	0	0					
User Soil Test Recommendation (lb/A)								
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0					
P Index Application Method		1						
Double Crop CarryOver N (Ib/A)	0							
Manure History Description Residual Manure N (lb/A)	35 Continuously - Sumn Crop							
Legume History Description Residual Legume N (lb/A)	0 No Previous Year Legum							
Net Nutrients Required (lb/A)	90	0	0					
Manure Group	Farmstead 1A	Horse - Uncol	llected					
Application Season: Management (Incorporation, cover crops, etc.)	Grazing an duri	ytime with nutr ng growing sea	ient uptake ason					
	Total N	NH4-N	Org. N					
(Total N or NH4-N & Organic N)	0.20							
P Index Application Method	Surface app.	when frozen/s	now covered					
N Balanced Manure Rate (ton; gal/A)		38	tons/A					
P Removal Balance Manure Rate		8	tons/A					
(ton or gal/A; If required by P Index)	Crop P F	Removal (lb/A)	37.5					
P Index Value		29						
Planned Manure Rate (ton or gal/A)		5.5	tons/A					
Nutrients Applied at Planned Manure Rate (lb/A)	13	28	50					
Nutrient Balance after Manure	77	-28	-50					
Supplemental Fertilizer (Ib/A)	77	0	0					
		5	5					
	•	0	50					
	U	-20	-20					
		^						
Manure Utilized on CMU	1	6	tons					

Appendix 5 - P Index					Go to NMP Index							
Crop Yrs. 2019	Pennsylvania P Inde	ex Version 2			Go to App 4 Input							
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	P2						
Is the CMU in a Special Protection watershed?			No									
A significant farm management change as defined by Act 38?		Is there a significant farm management change as defined by Act 38?										
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	296						
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dista	ance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	No						
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?			No						
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B volu	untarily? (Answers are No	to all Part A questions.)		No						
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P) Mehlich 3 Soil Test P (ppm P)												
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)												
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0						
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-						
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0						
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-						
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Method												
MANURE P RATE Manure P (lb P205/acre)												
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	1						
P SOURCE COEFFICIENT <sup>3</sup>	Re	fer to: Test results for P	Source Coefficient OR Bool	values from P Index Fact Shee	Table 1	0.8						
Manure Rating = Manure Rate x Manure Application Meth	od x P Source Coeff	icient				22						
Source Factor Sum						81						
PART B: TRANSPORT FACTORS			Soil Loss (ton/acro/u	(m)		0.252						
EROSION		L	Son Loss (ton/acre/y			0.232						
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 <i>Drainage Class is</i> Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4						
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0						
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0						
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance				4						
0.85         1.0         1.1           MODIFIED CONNECTIVITY         50 ft. Riparian Buffer         1.0         Direct Connection APPLIES TO DIST > 100 FT												
Transport Sum x Modified Connectivity / 24						0.18						
P Index Value = 2 x Source x Transport												
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied								

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Appendix 5 - P Index					Go to NMP Index							
Crop Yrs. 2020	Pennsylvania P Inde	ex Version 2			Go to App 4 Input	<u>Go to App 4 Input</u>						
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	P2						
Is the CMU in a Special Protection watershed?			No									
A significant farm management change as defined by Act 38?		Is there a significant farm management change as defined by Act 38?										
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	296						
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dista	ance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	No						
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?		-	No						
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B volu	untarily? (Answers are No	to all Part A questions.)		No						
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P) Mehlich 3 Soil Test P (ppm P)												
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						59						
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0						
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-						
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0						
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-						
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Method												
MANURE P RATE Manure P (lb P2O5/acre)												
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	1						
P SOURCE COEFFICIENT <sup>3</sup>	Re	fer to: Test results for P	Source Coefficient OR Bool	values from P Index Fact Sheet	Table 1	0.8						
Manure Rating = Manure Rate x Manure Application Meth	od x P Source Coeff	icient				22						
Source Factor Sum						81						
PART B: TRANSPORT FACTORS			Soil Loss (ton/acro/u	(m)		0.252						
EROSION		F	Soli Loss (Ion/acre/y			0.232						
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 <i>Drainage Class is</i> Well/Moderately Well	6 Drainage Class is Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4						
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0						
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0						
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance				4						
0.85         1.0         1.1           MODIFIED CONNECTIVITY         50 ft. Riparian Buffer         1.0         Grassed Waterway or None         Direct Connection APPLIES TO DIST > 100 FT												
Transport Sum x Modified Connectivity / 24						0.18						
P Index Value = 2 x Source x Transport												
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied								

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Appendix 5 - P Index					Go to NMP Index							
Crop Yrs. 2021	Pennsylvania P Inde	ex Version 2			Go to App 4 Input							
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	P2						
Is the CMU in a Special Protection watershed?			No									
A significant farm management change as defined by Act 38?		Is there a significant farm management change as defined by Act 38?										
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	296						
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dista	ance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	No						
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?			No						
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B volu	untarily? (Answers are No	to all Part A questions.)		No						
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P) Mehlich 3 Soil Test P (ppm P)												
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						59						
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0						
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-						
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0						
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-						
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Method												
MANURE P RATE Manure P (lb P2O5/acre)												
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	1						
P SOURCE COEFFICIENT <sup>3</sup>	Re	fer to: Test results for P	Source Coefficient OR Bool	values from P Index Fact Shee	Table 1	0.8						
Manure Rating = Manure Rate x Manure Application Meth	od x P Source Coeff	icient				22						
Source Factor Sum						81						
PART B: TRANSPORT FACTORS			Soil Loss (ton/acro/u	(m)		0.252						
EROSION		F	Soli Loss (Ion/acre/y			0.232						
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 <i>Drainage Class is</i> Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4						
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0						
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0						
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance				4						
0.85         1.0         1.1           MODIFIED CONNECTIVITY         50 ft. Riparian Buffer         Grassed Waterway or None         Direct Connection APPLIES TO DIST > 100 FT												
Transport Sum x Modified Connectivity / 24						0.18						
P Index Value = 2 x Source x Transport												
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied								

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

## Appendix 6 Manure Management

#### Date of Site Evaluation: June 15, 2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

The following areas were evaluated: calf and heifer barn, HDPE lined manure storage pond, silos, mortality compost pile, horse barn, pasture access area, horse manure temporary stacking area, farmsteads

#### Identification of Inadequate Manure Management Practices and Conditions

List of each specific inadequate manure management practice or condition identified.

The potential for the growth of woody vegetation on the berms of the HDPE lined manure storage pond was noted at the site visit.

#### **BMPs to Address Manure Management Problem Areas**

List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above.

A good vegetative cover should be maintained on the berms and embankments of the HDPE lined manure storage pond. Vegetation should be mowed at least 3 times annually. If the vegetative cover is damaged it should be re-seeded as soon as possible. Trees, shrubs and other taproot plants should be removed immediately upon discovery.

# Appendix 7 Stormwater Control

#### Date of Site Evaluation: June 15, 2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

The following areas were evaluated: pasture P2

#### **Identification of Critical Runoff Problem Areas**

List of each specific critical runoff problem area identified.

No critical runoff problem areas were identified at the time of the site visit.

#### **BMPs to Address Critical Runoff Problem Areas**

List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above.

None

## Appendix 8 Importer/Broker Agreements & NBSs

Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan.

## **Exporter/Importer Agreement** Manure Used For Agricultural Land Application

Developed consistent with the PA Nutrient and Odor Management Act Program

- 1) This agreement is entered into on June 20, 2018, by John Rishel (the "exporter") who will supply manure, and <u>Gary Truckenmiller</u> (the "importer"), who will receive the manure from the exporter.
- 2) The purpose of this agreement is to set forth the mutual responsibilities and understanding of the parties with respect to the export of manure from the exporter to the importer.
- The exporter is located at (county, twp, and address): <u>Northumberland County, Delaware Township</u> 1710 Vincent Avenue, Watsontown, PA 17777
- 4) The <u>exporter</u> will, as the supply of manure allows, provide the following amounts of manure during the seasons outlined below:

#### Tons of Cattle manure, per season:

Spring up to 850 tons or Summer O tons or Fall up to 850 tons or Winter up to 850 tons

#### Gallons of Cattle manure, per season:

Spring <u>up to 680,000 gallons</u> or Summer <u>0 gallons</u> or Fall <u>up to 680,000 gallons</u> or Winter <u>up to 680,000 gallons</u>

Total planned manure exported: (supply of manure may be less than what is planned) Tons of <u>Cattle</u> manure: <u>up to a total of 850 tons per year</u> Gallons of <u>Cattle</u> manure: <u>up to a total of 680,000 gallons per year</u>

If multi-species are planned, please add additional lines:

- 5) The <u>importer's</u> location and other relevant information as it relates to this manure export, is as follows (maps indicating the location of importing fields must be attached to the supporting Nutrient Balance Sheets if manure is to be land applied at the importing site):
  - a) Phone number: 570-713-4249
  - b) County(s): Northumberland
  - c) Address: 2145 Cronrath Road, Watsontown, PA 17777
  - d) Township(s): <u>Delaware</u>
  - d) Owner(s) of the property receiving manure: John Rishel
  - e) Total cropland acres managed by the importer: 600 acres
  - f) Number and type of animals raised by the importer: 100 milk cows, 100 replacement heifers
  - g) Number of acres available for this imported manure: 85 acres
  - h) Other manures (type, amount) imported to the site AND/OR utilized on the site: (Note- this would include manure that is generated on the site by the importers animals, etc.) <u>None</u>
    - If other manure is generated, imported and/or utilized, is it applied to the same acres as indicated in item "g" above (relating to "acres available"): <u>N/A</u>

## • If other manure is generated, imported and/or utilized, is it applied during the same season as the imported manure: <u>N/A</u>

- 6) The exporter will use a Manure Export Sheet to record all manure exported to the importer. These Manure Export Sheets are available from the county conservation district or the State Conservation Commission. Computer generated forms other than the manure export sheet may be used if they contain the same information as, and are reasonably similar in format to, the forms available from the State Conservation Commission or the conservation district.
- 7) Records relating to the export of manure shall be prepared by the exporter in accordance with the following requirements of the Nutrient and Odor Management Act regulations:
  - a) A Manure Export Sheet shall be used to document all manure exports for their records
    - A copy of the Manure Export Sheet shall be provided to the importer
    - A copy of the Manure Export Sheet shall be retained on site by the exporter
  - b) When the exporter (or someone working for, or contracted by the exporter) applies the exported manure, the exporter shall maintain the following exported manure records:
    - Application dates, areas, rates and methods
  - c) Records shall be maintained by the exporter for a minimum of 3 years
  - d) A manure export informational packet (as supplied by the conservation district or State Conservation Commission) shall be provided to the importer by the time of the manure export. This information only needs to be provided once to the importer.
    - The manure export informational packet must include the following:
      - i. Exported Manure Informational Packet Guidance Sheet
      - ii. Nutrient Management Planning an Overview (Agronomy Facts 60)
      - iii. Manure Management for Environmental Protection
      - iv. Land Application of Manure- A supplement to the Manure Management Manual Plan Guidance
      - v. Manure Export Sheet
      - vi. Manure Transfer Summary Sheets
    - vii. Manure Field Stacking Requirements Fact Sheet
- 8) Where applicable, the importer shall properly store manure received from the exporter in accordance with the provisions of the Manure Management Manual and the Pa Technical Guide and shall not cause contamination of surface or ground water. This shall include manure stacked in application fields which may not be retained in fields for > 120 days unless covered or otherwise protected.
- 9) Manure received by the importer shall be applied to the land at the rate(s) and method(s) provided in the attached "Nutrient Balance Sheet(s)", or in accordance with a Nutrient Management Plan approved for the importing operation. If the importer wishes to change the lands used for imported manure, the nutrient balance sheet must be revised to reflect the changes and be submitted to the conservation district or State Conservation Commission (and DEP if the exporter is a CAFO) prior to implementing the changes.
- 10) The importer shall comply with applicable manure application setbacks for the imported manure, as outlined in the Nutrient Balance Sheet map(s).
- 11) For any lands not owned by the importer where the manure will be applied (i.e., rented lands), the importer hereby confirms that the importer has the authority to apply manure on those lands.

12) This agreement shall remain in full effect unless terminated by either party upon thirty days prior written notice to the other party. If this agreement is terminated, the exporter shall notify the county conservation district office that approved their nutrient management plan, of the termination.

Exporter Signature, Name and Date Importer Signature, Name and Date 00 (signature) m (signature) Gary Dishe I makenni. dim (name) hame) 20/2018 4 6/20/2018 (date) (date)

## **Nutrient Balance Sheet**

Prepared for

Gary Truckenmiller 2145 Cronrath Road, Watsontown, PA 17777 570-713-4249

#### Prepared by

Todd C. Rush #988-NMC 120 Lake Street, Ephrata PA 17522 570-764-7003



Nutrient Management Specialist or Broker 2 Signature

**Date of Development** 

July 31, 2018

**Exporter Information** John Rishel 1710 Vincent Avenue, Watsontown, PA 17777

**County of Origin** 

Northumberland County

#### **Nutrient Balance Worksheet Appendices**

The following appendices need to accompany the Nutrient Balance Worksheets if applicable:

• Maps of fields where manure is to applied including required manure application setbacks.

• Completed P-Index spreadsheet and Winter Matrix for each crop management unit (if using Manure Plan Basis: Option 3)

#### Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

				Starter/Other Fertilizer (Ib/A)					ner b/A)	Su Fer	pplemer tilizer (II	ntal b/A)	Nutrient Balance (Ib/A) <sup>2</sup>		ance	
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	$P_2O_5$	K₂O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K₂O
R1_2 Corn Silage Liquid Manure Spring	R1_2	14.9	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R1_2 Corn Silage Liquid Manure Fall	R1_2	14.9	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R1_2 Corn Silage Liquid Manure Winter	R1_2	14.9	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R1_2 Corn Silage Solid Manure Spring	R1_2	14.9	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	69	0	32	0	0	0
R1_2 Corn Silage Solid Manure Fall	R1_2	14.9	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	69	0	32	0	0	0
R1_2 Corn Silage Solid Manure Winter	R1_2	14.9	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/A	0	0	0	69	0	32	0	0	0
R3 Corn Silage Liquid Manure Spring	R3	4.3	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R3 Corn Silage Liquid Manure Fall	R3	4.3	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102

						St Fei	Starter/Other Fertilizer (Ib/A)			Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>				
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R3 Corn Silage Liquid Manure Winter	R3	4.3	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R3 Corn Silage Solid Manure Spring	R3	4.3	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R3 Corn Silage Solid Manure Fall	R3	4.3	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R3 Corn Silage Solid Manure Winter	R3	4.3	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
R4 Corn Silage Liquid Manure Spring	R4	3.9	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R4 Corn Silage Liquid Manure Fall	R4	3.9	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R4 Corn Silage Liquid Manure Winter	R4	3.9	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	) gal/A	0	0	0	43	0	0	0	-22	-102
R4 Corn Silage Solid Manure Spring	R4	3.9	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R4 Corn Silage Solid Manure Fall	R4	3.9	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R4 Corn Silage Solid Manure Winter	R4	3.9	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
R5B Corn Silage Liquid Manure Spring	R5B	4.1	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	) gal/A	0	0	0	43	0	0	0	-22	-102

					Application Season				Starter/Other Fertilizer (Ib/A)			Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>		
Crop Group	Fields	Acres	Crop	Manure Group		Application Management	Planned I Rate	Manure e <sup>1</sup>	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O
R5B Corn Silage Liquid Manure Fall	R5B	4.1	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R5B Corn Silage Liquid Manure Winter	R5B	4.1	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R5B Corn Silage Solid Manure Spring	R5B	4.1	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R5B Corn Silage Solid Manure Fall	R5B	4.1	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R5B Corn Silage Solid Manure Winter	R5B	4.1	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
R6 Corn Silage Liquid Manure Spring	R6	5.1	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R6 Corn Silage Liquid Manure Fall	R6	5.1	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R6 Corn Silage Liquid Manure Winter	R6	5.1	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R6 Corn Silage Solid Manure Spring	R6	5.1	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R6 Corn Silage Solid Manure Fall	R6	5.1	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R6 Corn Silage Solid Manure Winter	R6	5.1	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
			Name Analisation Discond Mar		Starter/Other Fertilizer (Ib/A)		ner b/A)	Supplemental Fertilizer (Ib/A)		ntal o/A)	Nutrient Balance (Ib/A) <sup>2</sup>						
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Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R7 Corn Silage Liquid Manure Spring	R7	3.1	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R7 Corn Silage Liquid Manure Fall	R7	3.1	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R7 Corn Silage Liquid Manure Winter	R7	3.1	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R7 Corn Silage Solid Manure Spring	R7	3.1	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R7 Corn Silage Solid Manure Fall	R7	3.1	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R7 Corn Silage Solid Manure Winter	R7	3.1	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
R8 Corn Silage Liquid Manure Spring	R8	9	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R8 Corn Silage Liquid Manure Fall	R8	9	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R8 Corn Silage Liquid Manure Winter	R8	9	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R8 Corn Silage Solid Manure Spring	R8	9	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R8 Corn Silage Solid Manure Fall	R8	9	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0

				Starter/Other Fertilizer (Ib/A)		ner b/A)	Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>							
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R8 Corn Silage Solid Manure Winter	R8	9	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
R9 Corn Silage Liquid Manure Spring	R9	2.1	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	) gal/A	0	0	0	43	0	0	0	-22	-102
R9 Corn Silage Liquid Manure Fall	R9	2.1	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R9 Corn Silage Liquid Manure Winter	R9	2.1	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	) gal/A	0	0	0	43	0	0	0	-22	-102
R9 Corn Silage Solid Manure Spring	R9	2.1	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R9 Corn Silage Solid Manure Fall	R9	2.1	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R9 Corn Silage Solid Manure Winter	R9	2.1	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
R10 Corn Silage Liquid Manure Spring	R10	6.2	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	) gal/A	0	0	0	43	0	0	0	-22	-102
R10 Corn Silage Liquid Manure Fall	R10	6.2	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	) gal/A	0	0	0	43	0	0	0	-22	-102
R10 Corn Silage Liquid Manure Winter	R10	6.2	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R10 Corn Silage Solid Manure Spring	R10	6.2	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0

								anned Manure		Starter/Other Fertilizer (Ib/A)		r Supplement A) Fertilizer (Ib		ntal Nutrient Balance b/A) (Ib/A) <sup>2</sup>			ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate	lanure	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O
R10 Corn Silage Solid Manure Fall	R10	6.2	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 1	tons/A	0	0	0	69	0	32	0	0	0
R10 Corn Silage Solid Manure Winter	R10	6.2	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 1	tons/A	0	0	0	69	0	32	0	0	0
R11 Corn Silage Liquid Manure Spring	R11	2.2	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R11 Corn Silage Liquid Manure Fall	R11	2.2	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 (	gal/A	0	0	0	43	0	0	0	-22	-102
R11 Corn Silage Liquid Manure Winter	R11	2.2	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 (	gal/A	0	0	0	43	0	0	0	-22	-102
R11 Corn Silage Solid Manure Spring	R11	2.2	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 1	tons/A	0	0	0	69	0	32	0	0	0
R11 Corn Silage Solid Manure Fall	R11	2.2	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 1	tons/A	0	0	0	69	0	32	0	0	0
R11 Corn Silage Solid Manure Winter	R11	2.2	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 1	tons/A	0	0	0	69	0	32	0	0	0
R12 Corn Silage Liquid Manure Spring	R12	3.3	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R12 Corn Silage Liquid Manure Fall	R12	3.3	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 (	gal/A	0	0	0	43	0	0	0	-22	-102
R12 Corn Silage Liquid Manure Winter	R12	3.3	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 (	gal/A	0	0	0	43	0	0	0	-22	-102

								Starter/Other Fertilizer (Ib/A)		r Suppleme A) Fertilizer (		ental Nutrient Bala (Ib/A) (Ib/A) <sup>2</sup>		ance		
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R12 Corn Silage Solid Manure Spring	R12	3.3	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	69	0	32	0	0	0
R12 Corn Silage Solid Manure Fall	R12	3.3	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	69	0	32	0	0	0
R12 Corn Silage Solid Manure Winter	R12	3.3	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/A	0	0	0	69	0	32	0	0	0
R13 Corn Silage Liquid Manure Spring	R13	6.3	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R13 Corn Silage Liquid Manure Fall	R13	6.3	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R13 Corn Silage Liquid Manure Winter	R13	6.3	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R13 Corn Silage Solid Manure Spring	R13	6.3	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	69	0	32	0	0	0
R13 Corn Silage Solid Manure Fall	R13	6.3	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	69	0	32	0	0	0
R13 Corn Silage Solid Manure Winter	R13	6.3	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/A	0	0	0	69	0	32	0	0	0
R14 Corn Silage Liquid Manure Spring	R14	4	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102
R14 Corn Silage Liquid Manure Fall	R14	4	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	43	0	0	0	-22	-102

							Diama d Manuar		Starter/Other Fertilizer (Ib/A)		ner b/A)	Supplement Fertilizer (Ib			tal Nutrient Balance b/A) (Ib/A) <sup>2</sup>			
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	
R14 Corn Silage Liquid Manure Winter	R14	4	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102	
R14 Corn Silage Solid Manure Spring	R14	4	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0	
R14 Corn Silage Solid Manure Fall	R14	4	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0	
R14 Corn Silage Solid Manure Winter	R14	4	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0	
R15 Corn Silage Liquid Manure Spring	R15	3.6	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102	
R15 Corn Silage Liquid Manure Fall	R15	3.6	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102	
R15 Corn Silage Liquid Manure Winter	R15	3.6	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102	
R15 Corn Silage Solid Manure Spring	R15	3.6	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0	
R15 Corn Silage Solid Manure Fall	R15	3.6	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0	
R15 Corn Silage Solid Manure Winter	R15	3.6	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0	
R16 Corn Silage Liquid Manure Spring	R16	3.3	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102	

							Planned Manure		Starter/Other Fertilizer (Ib/A)		ner b/A)	r Suppleme A) Fertilizer (		ntal Nutrient Ba		rient Bal (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manur Rate <sup>1</sup>	re	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O
R16 Corn Silage Liquid Manure Fall	R16	3.3	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A		0	0	0	43	0	0	0	-22	-102
R16 Corn Silage Liquid Manure Winter	R16	3.3	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A		0	0	0	43	0	0	0	-22	-102
R16 Corn Silage Solid Manure Spring	R16	3.3	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/	A	0	0	0	69	0	32	0	0	0
R16 Corn Silage Solid Manure Fall	R16	3.3	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons//	A	0	0	0	69	0	32	0	0	0
R16 Corn Silage Solid Manure Winter	R16	3.3	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/ <i>i</i>	A	0	0	0	69	0	32	0	0	0
R17 Corn Silage Liquid Manure Spring	R17	2.2	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A		0	0	0	43	0	0	0	-22	-102
R17 Corn Silage Liquid Manure Fall	R17	2.2	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A		0	0	0	43	0	0	0	-22	-102
R17 Corn Silage Liquid Manure Winter	R17	2.2	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A		0	0	0	43	0	0	0	-22	-102
R17 Corn Silage Solid Manure Spring	R17	2.2	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/	A	0	0	0	69	0	32	0	0	0
R17 Corn Silage Solid Manure Fall	R17	2.2	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/	A	0	0	0	69	0	32	0	0	0
R17 Corn Silage Solid Manure Winter	R17	2.2	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons//	A	0	0	0	69	0	32	0	0	0

# **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R1_2 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R1_2 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R3 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R3 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R5B Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R5B Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notos
R7 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R7 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R8 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R8 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R10 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R10 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R12 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R12 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R14 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R14 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R15 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R15 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R16 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may not be applied to this field if it is snow or ice covered.
R16 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R17 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R17 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R1_2 Cor	n Silage Liqu Spring	id Manure	R1_2 Corn S	Silage Liquid	Manure Fall	R1_2 Cor	n Silage Liqu Winter	id Manure	R1_2 Co	rn Silage Soli Spring	id Manure	R1_2 Corn	Silage Solid	Manure Fall	R1_2 Cor	n Silage Soli Winter	d Manure
Crop Group Indentification		D4 0			D4 0			D1 0			D1 0			D1 0			D4 0	
Fields		14.0			11.0			14.0			14.0			14.0			14.0	
Acres		14.9			14.9			14.9			14.9			14.9			14.9	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking											1							
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P			ppm P		
For Option 3 enter soil test for Pl	223			223			223			223			223			223		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	0	V	/inter Soil Te	st P		Soil Test F	0		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			ι		μ	ι								J				ı
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer	35	Continuous Cr	ly - Summer	35	Continuous C	ly - Summer	35	Continuous	ly - Summer	35	Continuous	ly - Summer	35	Continuous Cr	ly - Summer
Legume History Description Residual Legume N (Ib/A)	50	Crop       50     Soybeans, 50 bu/A       90     100     200       South Amount     100     100		50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200		90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200 uid Cattle Manure Lic		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Linits	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/top or 1000 gal)	20.68	15.20	37.70	20.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization-	Early Fall: incl. wint system: Inc	Early spring ar crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single
Asselled Block Frankran	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: 1	No incorp or ir	ncorp > 1 wk.	Surface app	when frozen/	snow covered	April - Oct:	No incorp or i	ncorp > 1 wk.	April - Oct: 1	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		15.152	nal/A	1	15.152	nal/A		15,152	dal/A		42	tons/A	1	42	tons/A		42	tons/A
P Removal Balance Manure Rate		6.579	gal/A		6.579	gal/A		6.579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
	0.00	40	100.0	0.001.14	40	100.0	0.00	56	100.0	orop i ra	36	100.0	0.001.10	36	100.0	0.001.110	49	100.0
Planned Manure Rate (top or gal/A)		8 000	aal/A		8 000	A/len		8 000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrionte Applied at Planped Manure Rate		0,000	guirA		0,000	guirA		0,000	guin			lonarA						tono/A
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	43 -22 -102			-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method		<u> </u>			r	n		·				1			·			1
Final Nutrient Balance (Ib/A)	0	0 -22 -102		0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R3 Corn	Silage Liquic Spring	I Manure	R3 Corn S	ilage Liquid N	Ianure Fall	R3 Corn	Silage Liqui Winter	d Manure	R3 Corn Sil	age Solid Ma	anure Spring	R3 Corn S	Silage Solid N	lanure Fall	R3 Corn Sila	age Solid Ma	nure Winter
Crop Group Indentification		D2			<b>D</b> 2			D2			D0			D2			D2	
Acros		43			4.3			/ 3			/ 3			43			/ 3	
											4.0							
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking	nnm D			nnm D			nnm D			nnm D			nnm D			nnm D		
Mehlich 3 Soil Test P	ppine			ррше			ppmP			ррше			ррше			ррше		
For Option 3 enter soil test for PI	157			157			157			157			157			157		
P Index Part A Evaluation								Winter									Winter	
Part A Result		N Based			N Based			Part B			N Based			N Based			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	No-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	i ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (Ib/A)	50	50     Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200		90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200   uid Cattle Manure Liq		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	I: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method		Select Metho	d		Select Metho	d	Surface app.	when frozen/	snow covered	:	Select Metho	d		Select Metho	d	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		15,152	gal/A		15,152	gal/A		15,152	aal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		(. ,			( ,			50			( ,			( . ,			43	
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	gal/A		8.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	gant		-,	9		-,	9					T				
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	43 -22 -102			-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	43     -22     -102       43     0     0			0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method														1				
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R4 Corn	Silage Liquic Spring	I Manure	R4 Corn S	ilage Liquid N	Ianure Fall	R4 Corn	Silage Liqui Winter	d Manure	R4 Corn Sil	age Solid Ma	anure Spring	R4 Corn S	Silage Solid N	lanure Fall	R4 Corn Sila	age Solid Ma	nure Winter
Crop Group Indentification		D4			D4			D4			D 4			D4			D4	
Fields		R4 2.0			2.0		-	2.0			R4 2.0			2.0			2.0	
Acres		5.5			5.9			3.9			3.9			5.5			5.5	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppine			ррше	-		ppmP			ррше			ppine			ррше		
For Option 3 enter soil test for Pl	335			335			335			335			335			335		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	v	Vinter Soil Te	st P		Soil Test I	2		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																	-	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ily - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	50     Soybeans, 50 bu/A       90     100     200			Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200			100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200 Juid Cattle Manure Lie			e Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou corporated after none	utilization uble crop er 7 days or	Winter: Su crop corn c	immer Utiliza or annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ays or none	Early Fall incl. wint system: Inc	l: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	. when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		49			49			64			45			45			57	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate																		
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	43 -22 -102			-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	43     -22     -102       43     0     0			0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method					I.	-					1			1				1
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to ertilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 in Crop Rem OT be used t artilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R5B Corr	n Silage Liqui Spring	d Manure	R5B Corn S	Silage Liquid I	Manure Fall	R5B Corr	n Silage Liqu Winter	id Manure	R5B Cor	n Silage Soli Spring	d Manure	R5B Corn	Silage Solid I	Manure Fall	R5B Corr	n Silage Solio Winter	d Manure
Crop Group Indentification		D5D			D5B		-	D5B			D5B		-	D5B			D5D	
Acres		4 1			4 1			4 1			4 1			4 1			4 1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Moblich 3 Soil Tost P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test		-																
For Option 3 enter soil test for PI	329			329			329			329			329			329		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	V	Vinter Soil Te	est P		Soil Test I	c		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	No-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	5 ton/A		25	ton/A		25	ton/A		25	ton/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Ci	ly - Summer op	35	Continuous Cr	ly - Summer rop
Legume History Description Residual Legume N (lb/A)	50	Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	is, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200		90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200 uid Cattle Manure Lic		Liquid Cattle	Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ays or none	Early Fall: incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single over crop for
Aveilebility, Festere	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0
P Index Value		49			49			64			44			44			57	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
(ID/A)	40	00	400	40	00	400	40	00	100	00	0	00	00	0	00	00	0	
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (ID/A)	43	43     -22     -102       43     0     0			0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method	•	43 0 0				400	•		400	•	•	•		•	•	•	•	•
Final Nutrient Balance (ID/A)	U	-22	-102	U	-22	-102	U	-22	-102	U	U	U	U	U	U	U	U	U
iviuitiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t ertilizer needs	05 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R6 Corn	Silage Liquio Spring	I Manure	R6 Corn S	ilage Liquid N	Ianure Fall	R6 Corn	Silage Liqui Winter	d Manure	R6 Corn Sil	age Solid Ma	anure Spring	R6 Corn S	Silage Solid N	lanure Fall	R6 Corn Sil	age Solid Ma	nure Winter
Crop Group Indentification		DC			DC			DC			DC			DC			DC	
Fields		F 1			F 1			F 1			F 1			F 1			F 1	
Acres		5.1			5.1			5.1			5.1			5.1			5.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppine			ррпге	-		ppmP			ррше			ppine			ррше		
For Option 3 enter soil test for Pl	370			370			370			370			370			370		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	v	Vinter Soil Te	st P		Soil Test I	2		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method								·	•					-				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ily - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	50     Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200			100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200 Juid Cattle Manure Lice			e Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou corporated after none	utilization uble crop er 7 days or	Winter: Su crop corn c	immer Utiliza or annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ays or none	Early Fall incl. wint system: Inc	l: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	. when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		52			52			67			48			48			60	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate			Ŭ			Ŭ			ľ –			[		1				
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	43 -22 -102			-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	43     -22     -102       43     0     0			0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method					I.	-					1			1	1		-	
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to ertilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 in Crop Rem OT be used t artilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R7 Corn	Silage Liquic Spring	I Manure	R7 Corn S	ilage Liquid N	Ianure Fall	R7 Corn	Silage Liqui Winter	d Manure	R7 Corn Sil	age Solid Ma	anure Spring	R7 Corn S	Silage Solid N	lanure Fall	R7 Corn Sila	age Solid Ma	nure Winter
Crop Group Indentification		07			DZ			DZ			DZ			DZ			DZ	
Acros		3.1			3.1			3.1			31			3.1			3.1	
		0.1			0.1			0.1									0.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1													
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P			ppm P			ppm P	-		ppm P		
For Option 3 enter soil test for Pl	355			355			355			355			355			355		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	v	Vinter Soil Te	est P		Soil Test F	2		Soil Test F	<b>b</b>	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	No-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Cran Demoval Decommon detions (LD/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					,									•				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op	35	Continuous C	sly - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (Ib/A)	50	50     Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200			100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200 uid Cattle Manure Lic			Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ays or none	Early Fall incl. wint system: Inc	l: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		15,152	gal/A		15,152	gal/A		15,152	aal/A		. 42	tons/A		. 42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		51			51			66			46			46			59	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	gant		-,	9		-,	9					1				
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	43 -22 -102			-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	43     -22     -102       43     0     0			0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method		43 0 0			1				1		1			1	r		1	r
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t artilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R8 Corn	Silage Liquio Spring	I Manure	R8 Corn S	ilage Liquid N	Ianure Fall	R8 Corn	Silage Liqui Winter	d Manure	R8 Corn Sil	age Solid Ma	anure Spring	R8 Corn S	Silage Solid N	lanure Fall	R8 Corn Sila	age Solid Ma	nure Winter
Crop Group Indentification		DO			DO			DO			DO			Do			DO	
Fields		0.0			0.0			0.0			0.0			0.0			0.0	
Acres		9.0			3.0			9.0			9.0			9.0			9.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking								1						1				
Mehlich 3 Soil Test P	ppine			ррпге	-		ррше			ррше			ppine			ррше		
For Option 3 enter soil test for Pl	208			208			208			208			208			208		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	v	/inter Soil Te	est P		Soil Test I	2		Soil Test F	)	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	No-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommendations (LB/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	50     Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200			100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200 Juid Cattle Manure Lic			e Manure		Liguid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou corporated after none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ays or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		39			39			54			35			35			47	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate									J									
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	43     -22     -102       43     0     0			0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method		43 0 0			1							1						
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to ertilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used f rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R9 Corn	Silage Liquio Spring	I Manure	R9 Corn S	ilage Liquid N	Ianure Fall	R9 Corn	Silage Liqui Winter	d Manure	R9 Corn Sil	age Solid Ma	anure Spring	R9 Corn S	Silage Solid N	lanure Fall	R9 Corn Sila	age Solid Ma	nure Winter
Crop Group Indentification		DO			DO			DO			DO			DO			DO	
Fields		2.1			2.1		-	2.1			2.1			2.1			2.1	
Acres		2.1			2.1			2.1			2.1			2.1			2.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1													
Mehlich 3 Soil Test P	ppine			ррше			ppmP			ррше			ppine			ррше		
For Option 3 enter soil test for Pl	269			269			269			269			269			269		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	V	Vinter Soil Te	st P		Soil Test I	2		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method								·	•					-				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ily - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	50     Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	90 100 200			100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	90 100 200 uid Cattle Manure Lic			Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn c	immer Utiliza or annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ays or none	Early Fall incl. win system: Inc	I: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	. when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		44			44			59			40			40			52	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate																		
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	43 -22 -102			-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	43     -22     -102       43     0     0			0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method					i			1	1		r	r		T	i		-	i
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 in Crop Rem OT be used artilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R10 Corr	n Silage Liqui Spring	d Manure	R10 Corn S	Silage Liquid I	Manure Fall	R10 Corr	n Silage Liqui Winter	d Manure	R10 Cor	n Silage Solio Spring	d Manure	R10 Corn	Silage Solid N	<i>l</i> lanure Fall	R10 Corr	۱ Silage Solic Winter	d Manure
Fields		P10			P10			P10		1	P10			P10			P10	
Acros		62			62			62			62			62			62	
		0.2			0.2			0.2			0.2			0.2			0.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking		1			1			1								D		
Mehlich 3 Soil Test P	ppm P	-		ppm P	-		ppm P			ppm P			ppm P	_		ppm P		
For Option 3 enter soil test for Pl	326			326			326			326			326			326		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	)	v	/inter Soil Te	st P		Soil Test F	<b>b</b>		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					ļ.						1	Į		Ļ				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liguid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	nmer Utilizat r annuals-Co silage	tion. Single ver crop for
Aveilebility, Festere	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		. 42	tons/A		. 42	tons/A		42	tons/A
P Removal Balance Manure Rate		6.579	gal/A		6.579	gal/A		6.579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		50			50	10010		65	100.0		45			45			58	
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	nal/A		8.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrionte Applied at Planped Manure Rate		0,000	gain		0,000	guirA		0,000	gain									tono/A
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method			r		1			r			r	r		1	r		·	•
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used tr rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R11 Corr	n Silage Liqui Spring	d Manure	R11 Corn S	ilage Liquid I	Manure Fall	R11 Corr	n Silage Liqui Winter	d Manure	R11 Cor	n Silage Solio Spring	d Manure	R11 Corn	Silage Solid N	<i>l</i> lanure Fall	R11 Corr	۱ Silage Solic Winter	d Manure
Crop Group Indentification		D11			D11			D11			D11			D11			D11	
Acros		2.2			22			22			2.2			22			22	
		2.2			2.2			2.2			2.2			2.2			2.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking								1										
Mehlich 3 Soil Test P	ppine			ррше			ррше			ррше			ppin P	_		ppill P	1	
For Option 3 enter soil test for Pl	268			268			268			268			268			268		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	•	V	/inter Soil Te	st P		Soil Test F	0		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (I R/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method						-												
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liguid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	I: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	nmer Utilizat r annuals-Co silage	tion. Single ver crop for
Asselled Block Frankras	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		15.152	gal/A		15.152	gal/A		15.152	gal/A		. 42	tons/A		. 42	tons/A		42	tons/A
P Removal Balance Manure Rate		6.579	gal/A		6.579	gal/A		6.579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value	orop i ra	45	100.0	orop i ra	45	100.0	olop i i k	61	100.0	orop i ra	41	100.0	0.001.11	41	100.0	0.001.140	53	100.0
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	aal/A		8.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrionte Applied at Planped Manure Rate		0,000	gain		0,000	guirA		0,000	gain					1				tono/A
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method		1	r		r	1		1	1		r	r		1	r		r	1
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used tr rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R12 Corr	n Silage Liqui Spring	d Manure	R12 Corn S	Silage Liquid I	Manure Fall	R12 Corr	n Silage Liqui Winter	id Manure	R12 Cor	n Silage Solio Spring	d Manure	R12 Corn S	Silage Solid N	Manure Fall	R12 Corr	n Silage Solio Winter	d Manure
Crop Group Indentification		D40			D40			D40			D40			D40			D40	
Fields		3.2			2.2			33			3.2			22			2.2	
Actes		5.5			5.5			5.5			5.5			5.5			5.5	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking		1						1						1				
Mehlich 3 Soil Test P	ppm P	-		ppm P			ppm P	-		ppm P			ppm P	-		ppm P		
For Option 3 enter soil test for Pl	270			270			270			270			270			270		
P Index Part A Evaluation		Soil Test F	2		Soil Test F	0	V	/inter Soil Te	st P		Soil Test F	0		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR(A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method						•			·			•					-	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ily - Summer rop	35	Continuous Ci	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- lys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single ver crop for
Asselled Block Frankran	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: 1	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct:	No incorp or i	ncorp > 1 wk.	April - Oct: 1	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		15.152	nal/A	1	15.152	nal/A		15,152	nal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6.579	gal/A		6.579	gal/A		6.579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		45			45			61	10010		41			41	10010		53	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		0,000	gai/A		0,000	guirA		0,000	guirA						tona/A			tono/A
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method		1	1		r	r		1	T		1	r		1	1			1
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R13 Corr	n Silage Liqui Spring	d Manure	R13 Corn S	Silage Liquid I	Manure Fall	R13 Corr	n Silage Liqu Winter	id Manure	R13 Corr	n Silage Solio Spring	d Manure	R13 Corn	Silage Solid N	<i>l</i> lanure Fall	R13 Corr	n Silage Solio Winter	d Manure
Crop Group Indentification		P12			P12			P13			P12			P13			P13	
Acres		6.3			6.3			6.3			6.3			63			6.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	312			312			312			312			312			312		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	V	Vinter Soil Te	est P		Soil Test F	<b>b</b>		Soil Test F	<b>)</b>	W	/inter Soil Te	st P
Part A Result	-	Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	No-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					,									•				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous Ci	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	l: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		48			48			64			44			44			57	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method																		
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application	-			-			-			-	-		-		-	-		
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t ertilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R14 Corr	n Silage Liqui Spring	d Manure	R14 Corn S	Silage Liquid I	Manure Fall	R14 Corr	n Silage Liqui Winter	d Manure	R14 Cor	n Silage Solio Spring	d Manure	R14 Corn	Silage Solid N	<i>l</i> lanure Fall	R14 Corr	n Silage Solio Winter	d Manure
Fields		R14			R14			R14			R14			R14			R14	
Acres		4.0			4.0			4.0			4.0			4.0			4.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test														-				
For Option 3 enter soil test for PI	283			283			283			283			283			283		
P Index Part A Evaluation		Soil Test F	<b>)</b>		Soil Test F	)	v	/inter Soil Te	st P		Soil Test F	<b>)</b>		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																	-	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe on after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	I: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for
Ausilahilitu, Fastara	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		53			53			71			48			48			63	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		.,	<b>J</b>			<b>3</b>		-,	<b>J</b>		-			-			-	
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method			i		1	r		·			n	i			i			1
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R15 Corr	n Silage Liqui Spring	d Manure	R15 Corn S	Silage Liquid I	Manure Fall	R15 Corr	n Silage Liqui Winter	d Manure	R15 Cor	n Silage Solio Spring	d Manure	R15 Corn	Silage Solid N	Manure Fall	R15 Corr	n Silage Solio Winter	d Manure
Fields		R15			R15			R15			R15			R15			R15	
Acres		3.6			3.6			3.6			3.6			3.6			3.6	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test														-				
For Option 3 enter soil test for PI	283			283			283			283			283			283		
P Index Part A Evaluation		Soil Test F	þ		Soil Test F	)	V	/inter Soil Te	st P		Soil Test F	þ		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Cran Demoval Decommon detions (LD/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method														-				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	Ν	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization Ible crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	I: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single wer crop for
Availability, Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		53			53			71			48			48			63	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate																		
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	0	0	43	0	U	43	0	0	69	0	32	69	0	32	69	U	32
P Index Application Method												-		1 .	-		_	
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R16 Corr	n Silage Liqui Spring	d Manure	R16 Corn S	Silage Liquid I	Manure Fall	R16 Corr	n Silage Liqu Winter	id Manure	R16 Cor	n Silage Soli Spring	d Manure	R16 Corn	Silage Solid N	Manure Fall	R16 Corr	n Silage Solio Winter	d Manure
Fields		R16			R16			R16			R16			R16			R16	
Acres		3.3			3.3			3.3			3.3			3.3			3.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test																		
For Option 3 enter soil test for PI	423			423			423			423			423			423		
P Index Part A Evaluation		Soil Test F	)		Soil Test P	)	V	Vinter Soil Te	est P		Soil Test I	2		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	No-till)	Corn	for Silage (N	lo-till)	Corn	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	5 ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					,													
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous C	ly - Summer rop	35	Continuous Ci	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (Ib/A)	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	is, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	e Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utiliza r annuals-Co silage	tion. Single	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ays or none	Early Fall: incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single wer crop for
Availability Eastern	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Nov - Mar: I	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		66			66			75			61			61			76	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method																		
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application		1		-	1								-					
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t ertilizer needs	05 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R17 Corr	n Silage Liqui Spring	d Manure	R17 Corn S	ilage Liquid I	Manure Fall	R17 Corr	n Silage Liqui Winter	d Manure	R17 Cor	n Silage Solio Spring	d Manure	R17 Corn	Silage Solid N	Manure Fall	R17 Con	n Silage Solio Winter	d Manure
Crop Group Indentification		D17			D17			D17			D17			D17			D17	
Acros		22			22			22			22			22			22	
		2.2			2.2			2.2			2.2			2.2			2.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking														1				
Mehlich 3 Soil Test P	ppine			ррше			ррше			ррше			ppine	-		ppill P		
For Option 3 enter soil test for Pl	256			256			256			256			256			256		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	)	v	/inter Soil Te	st P		Soil Test F	0		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		·	-			-					•			•			-	·
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P205	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for
Ausilahilitu, Fastara	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		. 42	tons/A		. 42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		51			51			69			46			46			60	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		.,	<b>J</b>		-,	<b>3</b>		-,	<b>J</b>		-			-			-	
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method									-									
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	ex Version 2			1	1
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	R1_2 Corn Silage Liquid Manure Spring
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	I Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant fai	rm management change as o	defined by Act 38?	If the answer is Yes to	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	223
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	ance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?			No
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B vol	untarily? (Answers are No	to all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)			Mehlich 3 Soil Test P (p	pm P)		223
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						45
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	122
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.6
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Bool	k values from P Index Fact Sheet	Table 1	0.8
Manure Rating = Manure Rate x Manure Application Metho	od x P Source Coeffi	cient				59
Source Factor Sum						104
PART B: TRANSPORT FACTORS			Soil Loss (ton/acre/	(r)		0.68
EROSION		1	Son Eoss (ton/acre/y		1	0.00
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 <i>Drainage Class is</i> Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance		1		5
MODIFIED CONNECTIVITY	50 ft. Ri APPLIES TO	0.85 parian Buffer ) DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24						0.20
P Index Value = 2 x Source x Transport						40
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater		1

management

No Phosphorus applied

OR rapidly permeable soil near a stream
"9" factor does not apply to fields receiving manure with a 35 ft. buffer.
Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

PART A: SCREENING TOOL CMU/Field ID	R1_2 Corn Silage Liquid Manure Fall	R1_2 Corn Silage Liquid Manure Winter	R1_2 Corn Silage Solid Manure Spring	R1_2 Corn Silage Solid Manure Fall	R1_2 Corn Silage Solid Manure Winter	R3 Corn Silage Liquid Manure Winter	R3 Corn Silage Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	223	223	223	223	223	157	157
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	Yes	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	223	223	223	223	223	157	157
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	45	45	45	45	45	31	31
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	1	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	98	80
Source Factor Sum	104	143	93	93	125	129	111
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	40	56	36	36	49	50	43

Low: 59 or less

Nitrogen based management

OR rapidly permeable soil near a stream
"9" factor does not apply to fields receiving manure with a 35 ft. buffer.
Error Note: if there is a manure or fertilizer rate and there is no correspondi

PART A: SCREENING TOOL CMU/Field ID	R4 Corn Silage Liquid Manure Spring	R4 Corn Silage Liquid Manure Fall	R4 Corn Silage Liquid Manure Winter	R4 Corn Silage Solid Manure Spring	R4 Corn Silage Solid Manure Fall	R4 Corn Silage Solid Manure Winter	R5B Corn Silage Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	335	335	335	335	335	335	329
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	335	335	335	335	335	335	329
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	67	67	67	67	67	67	66
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	122	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	98	48	48	80	59
Source Factor Sum	126	126	165	115	115	147	125
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	49	64	45	45	57	49

Low: 59 or less

Nitrogen based management

OR rapidly permeable soil near a stream
"9" factor does not apply to fields receiving manure with a 35 ft. buffer.
Error Note: if there is a manure or fertilizer rate and there is no correspondi

PART A: SCREENING TOOL CMU/Field ID	R5B Corn Silage Liquid	R5B Corn Silage Liquid	R5B Corn Silage Solid	R5B Corn Silage Solid	R5B Corn Silage Solid	R6 Corn Silage Liquid	R6 Corn Silage Liquid
Is the CMI Lin a Special Protection watershed?	No	No	No	No	No	No	Manure Fair
A significant farm management change as defined by Act 382	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P2	220	220	220	220	220	270	270
Contributing Distance from CML to receiving water (150 ft 2)	329	329	329	329	329	370	370
Contributing Distance from CMD to receiving water < 150 ft. ?	NO	NO	NO	NO	NO	NO	NO
is winter manure application planned for this field ?	NO	Yes	NO	NO	Yes	NO	NO
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	<u>No</u>	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	329	329	329	329	329	370	370
Soil Test Rating = 0.20° Menlich 3 Soil Test P (ppm P)	66	66	66	66	66	74	74
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
	-	-	-	-	-	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>							
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	59	59
Source Factor Sum	125	164	114	114	146	133	133
PART B: TRANSPORT FACTORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EROSION	0.08	0.68	0.68	0.68	0.08	0.08	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	64	44	44	57	52	52

Low: 59 or less

Nitrogen based management

OR rapidly permeable soil near a stream
"9" factor does not apply to fields receiving manure with a 35 ft. buffer.
Error Note: if there is a manure or fertilizer rate and there is no correspondi
PART A: SCREENING TOOL CMU/Field ID	R6 Corn Silage Liquid Manure Winter	R6 Corn Silage Solid Manure Spring	R6 Corn Silage Solid Manure Fall	R6 Corn Silage Solid Manure Winter	R7 Corn Silage Liquid Manure Spring	R7 Corn Silage Liquid Manure Fall	R7 Corn Silage Liquid Manure Winter		
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No		
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No		
Soil Test Mehlich 3 P greater than 200 ppm P?	370	370	370	370	355	355	355		
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No		
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes		
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No		
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	370	370	370	370	355	355	355		
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	74	74	74	74	71	71	71		
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0		
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-		
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0		
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-		
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0		
MANURE P RATE	122	100	100	100	122	122	122		
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1		
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8		
Manure Rating = Manure Rate x Manure Application Metho	98	48	48	80	59	59	98		
Source Factor Sum	172	122	122	154	130	130	169		
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68		
RUNOFF POTENTIAL	4	4	4	4	4	4	4		
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0		
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0		
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5		
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20		
P Index Value = 2 x Source x Transport	67	48	48	60	51	51	66		

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R7 Corn Silage Solid Manure Spring	R7 Corn Silage Solid Manure Fall	R7 Corn Silage Solid Manure Winter	R8 Corn Silage Liquid Manure Spring	R8 Corn Silage Liquid Manure Fall	R8 Corn Silage Liquid Manure Winter	R8 Corn Silage Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	355	355	355	208	208	208	208
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	355	355	355	208	208	208	208
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	71	71	71	42	42	42	42
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	98	48
Source Factor Sum	119	119	151	101	101	140	90
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	46	46	59	39	39	54	35

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R8 Corn Silage Solid Manure Fall	R8 Corn Silage Solid Manure Winter	R9 Corn Silage Liquid Manure Spring	R9 Corn Silage Liquid Manure Fall	R9 Corn Silage Liquid Manure Winter	R9 Corn Silage Solid Manure Spring	R9 Corn Silage Solid Manure Fall	
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No	
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No	
Soil Test Mehlich 3 P greater than 200 ppm P?	208	208	269	269	269	269	269	
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No	
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No	
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No	
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	208	208	269	269	269	269	269	
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	42	42	54	54	54	54	54	
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0	
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-	
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0	
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>		-	-	-	-	-		
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0	
MANURE P RATE	100	100	122	122	122	100	100	
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6	
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8	
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	98	48	48	
Source Factor Sum	90	122	113	113	152	102	102	
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68	
RUNOFF POTENTIAL	4	4	4	4	4	4	4	
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0	
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0	
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5	
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
P Index Value = 2 x Source x Transport	35	47	44	44	59	40	40	

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R9 Corn Silage Solid Manure Winter	R10 Corn Silage Liquid Manure Spring	R10 Corn Silage Liquid Manure Fall	R10 Corn Silage Liquid Manure Winter	R10 Corn Silage Solid Manure Spring	R10 Corn Silage Solid Manure Fall	R10 Corn Silage Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	269	326	326	326	326	326	326
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	269	326	326	326	326	326	326
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	65	65	65	65	65	65
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80
Source Factor Sum	134	124	124	163	113	113	145
PART B: TRANSPORT FACTORS EROSION	0.68	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	52	50	50	65	45	45	58

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R11 Corn Silage Liquid Manure Spring	R11 Corn Silage Liquid Manure Fall	R11 Corn Silage Liquid Manure Winter	R11 Corn Silage Solid Manure Spring	R11 Corn Silage Solid Manure Fall	R11 Corn Silage Solid Manure Winter	R12 Corn Silage Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	268	268	268	268	268	268	270
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	268	268	268	268	268	268	270
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	54	54
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	122	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	98	48	48	80	59
Source Factor Sum	113	113	152	102	102	134	113
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	45	61	41	41	53	45

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R12 Corn Silage Liquid Manure Fall	R12 Corn Silage Liquid Manure Winter	R12 Corn Silage Solid Manure Spring	R12 Corn Silage Solid Manure Fall	R12 Corn Silage Solid Manure Winter	R13 Corn Silage Liquid Manure Spring	R13 Corn Silage Liquid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	270	270	270	270	270	312	312
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	270	270	270	270	270	312	312
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	62	62
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	59	59
Source Factor Sum	113	152	102	102	134	121	121
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	61	41	41	53	48	48

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R13 Corn Silage Liquid Manure Winter	R13 Corn Silage Solid Manure Spring	R13 Corn Silage Solid Manure Fall	R13 Corn Silage Solid Manure Winter	R14 Corn Silage Liquid Manure Spring	R14 Corn Silage Liquid Manure Fall	R14 Corn Silage Liquid Manure Winter	
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No	
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No	
Soil Test Mehlich 3 P greater than 200 ppm P?	312	312	312	312	283	283	283	
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No	
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes	
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No	
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	312	312	312	312	283	283	283	
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	62	62	62	62	57	57	57	
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0	
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-	
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0	
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0	
MANURE P RATE	122	100	100	100	122	122	122	
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1	
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8	
Manure Rating = Manure Rate x Manure Application Metho	98	48	48	80	59	59	98	
Source Factor Sum	160	110	110	142	116	116	155	
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	1.53	1.53	1.53	
RUNOFF POTENTIAL	4	4	4	4	4	4	4	
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0	
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0	
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	6	6	6	
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.23	0.23	0.23	
P Index Value = 2 x Source x Transport	64	44	44	57	53	53	71	

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R14 Corn Silage Solid Manure Spring	R14 Corn Silage Solid Manure Fall	R14 Corn Silage Solid Manure Winter	R15 Corn Silage Liquid Manure Spring	R15 Corn Silage Liquid Manure Fall	R15 Corn Silage Liquid Manure Winter	R15 Corn Silage Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	283	283	283	283	283
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	283	283	283	283	283
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	57	57	57	57	57
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	98	48
Source Factor Sum	105	105	137	116	116	155	105
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	48	63	53	53	71	48

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R15 Corn Silage Solid Manure Fall	R15 Corn Silage Solid Manure Winter	R16 Corn Silage Liquid Manure Spring	R16 Corn Silage Liquid Manure Fall	R16 Corn Silage Liquid Manure Winter	R16 Corn Silage Solid Manure Spring	R16 Corn Silage Solid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	423	423	423	423	423
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	423	423	423	423	423
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	85	85	85	85	
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	122	122	122	100	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	0.8	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	78	48	48
Source Factor Sum	105	137	144	144	163	133	133
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	63	66	66	75	61	61

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R16 Corn Silage Solid Manure Winter	R17 Corn Silage Liquid Manure Spring	R17 Corn Silage Liquid Manure Fall	R17 Corn Silage Liquid Manure Winter	R17 Corn Silage Solid Manure Spring	R17 Corn Silage Solid Manure Fall	R17 Corn Silage Solid Manure Winter		
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No		
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No		
Soil Test Mehlich 3 P greater than 200 ppm P?	423	256	256	256	256	256	256		
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No		
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes		
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No		
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	423	256	256	256	256	256	256		
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	85	51	51	51	51	51	51		
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0		
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-		
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0		
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-		
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0		
MANURE P RATE	100	122	122	122	100	100	100		
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1		
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8		
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80		
Source Factor Sum	165	110	110	149	99	99	131		
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53		
RUNOFF POTENTIAL	4	4	4	4	4	4	4		
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0		
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0		
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6		
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23		
P Index Value = 2 x Source x Transport	76	51	51	69	46	46	60		

Low: 59 or less

Nitrogen based management

# Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

								_		arter/Oth rtilizer (II	ner b/A)	Su Fer	pplemeı tilizer (II	ntal b/A)	Nuti	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R18 Corn Silage Liquid Manure Spring	R18	5	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R18 Corn Silage Liquid Manure Fall	R18	5	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R18 Corn Silage Liquid Manure Winter	R18	5	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R18 Corn Silage Solid Manure Spring	R18	5	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R18 Corn Silage Solid Manure Fall	R18	5	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R18 Corn Silage Solid Manure Winter	R18	5	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0
R19 Corn Silage Liquid Manure Spring	R19	1.6	Corn for Silage (No- till)	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102
R19 Corn Silage Liquid Manure Fall	R19	1.6	Corn for Silage (No- till)	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	43	0	0	0	-22	-102

									St Fei	arter/Oth tilizer (It	ner b/A)	Suj Fert	pplemei tilizer (ll	ntal b/A)	Nuti	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	$P_2O_5$	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R19 Corn Silage Liquid Manure Winter	R19	1.6	Corn for Silage (No- till)	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	8000 gal/A		0	0	43	0	0	0	-22	-102
R19 Corn Silage Solid Manure Spring	R19	1.6	Corn for Silage (No- till)	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R19 Corn Silage Solid Manure Fall	R19	1.6	Corn for Silage (No- till)	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	69	0	32	0	0	0
R19 Corn Silage Solid Manure Winter	R19	1.6	Corn for Silage (No- till)	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	69	0	32	0	0	0

## **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R18 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R18 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Corn Silage Liquid Manure Spring	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R19 Corn Silage Liquid Manure Fall	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Corn Silage Liquid Manure Winter	Corn for Silage (No-till)	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Corn Silage Solid Manure Spring	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R19 Corn Silage Solid Manure Fall	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Corn Silage Solid Manure Winter	Corn for Silage (No-till)	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R18 Corr	.18 Corn Silage Liquid Manure Spring R18		R18 Corn S	Silage Liquid N	Manure Fall	R18 Corr	n Silage Liqui Winter	d Manure	R18 Cor	n Silage Solio Spring	d Manure	R18 Corn	Silage Solid N	<i>l</i> lanure Fall	R18 Corr	n Silage Solio Winter	d Manure
Fields		D19			P19			D19		1	D19			P19			D19	
Acros		5.0			5.0			5.0			5.0			5.0			5.0	
ACIES		5.0			5.0			0.0			5.0			5.0			5.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1													
Mehlich 3 Soil Test P	ppm P	-		ppm P	-		ppm P	-		ppm P			ppm P	-		ppm P		
For Option 2 enter soil test for Pl	166			166			166			166			166			166		
P Index Part A Evaluation								Winter									Winter	
Part A Result		N Based			N Based			Part B			N Based			N Based			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corr	n for Silage (N	lo-till)	Corn	for Silage (N	lo-till)
Planned Yield		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A		25	ton/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					J									1				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	y - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	50	50     Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	d Cattle Manure			Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal	uid Cattle Manure Li 1000 gal Ib					lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P2O5	K20	N	P2O5	K20	N	P205	K20	N	P2O5	K20
(lbs/top or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37 70	29.68	15 20	37 70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. win system: Inc	: Early spring ter crop in dou corporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for
As a link life . En stand	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method			L				Surface app.	when frozen/	snow covered		L	I			L	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6.579	gal/A		6.579	gal/A		6.579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lh/A)	100.0	Crop P Re	moval (lb/A)	100.0	Crop P R	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
						100.0	••••	72	10010								62	
Planned Manure Rate (top or gal/A)		8 000	A/len		8 000	A/len		8 000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutriente Applied et Blepped Menure Rete		0,000	gairA		0,000	gai/A		0,000	gai/A		10	tona/A		1	tona/A		10	tona/A
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (Ib/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method		-							-									
Final Nutrient Balance (lb/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	t Balances for P2O5 and K2O sed on Crop Removal and LD NOT be used to determine nal fertilizer needs		Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bal are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used to ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R19 Corr	9 Corn Silage Liquid Manure R1 Spring R19			Silage Liquid N	Manure Fall	R19 Corr	n Silage Liqu Winter	id Manure	R19 Cor	n Silage Solio Spring	d Manure	R19 Corn S	Silage Solid N	Manure Fall	R19 Cor	n Silage Solio Winter	l Manure
Fields		R10			R10			R10			R10			R10			R10	
Acres		1.6			1.6			1.6			1.6			1.6			1.6	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test																		
For Option 3 enter soil test for PI	293			293			293			293			293			293		
P Index Part A Evaluation		Soil Test F	)		Soil Test P	)	V	Vinter Soil Te	est P		Soil Test F	<b>b</b>		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)	Corn	for Silage (N	No-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	lo-till)	Corn	for Silage (N	o-till)
Planned Yield		25	ton/A		25	ton/A		25	5 ton/A		25	ton/A		25	ton/A		25	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200	175	100	200
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous Ci	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op
Legume History Description Residual Legume N (Ib/A)	50	Soybeans, 50 bu/A       90     100     200		50	Soybeans	s, 50 bu/A	50	Soybean	is, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybean	s, 50 bu/A	50	Soybeans	s, 50 bu/A
Net Nutrients Required (Ib/A)	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200	90	100	200
Manure Group	Liquid Cattle	Cattle Manure Lique			e Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal	lid Cattle Manure Li D00 gal Ib					lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	Ν	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	ation. Single	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Aveilebility, Festere	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		15,152	gal/A		15,152	gal/A		15,152	gal/A		42	tons/A		42	tons/A		42	tons/A
P Removal Balance Manure Rate		6,579	gal/A		6,579	gal/A		6,579	gal/A		10	tons/A		10	tons/A		10	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	) 100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	emoval (lb/A)	100.0	Crop P Re	moval (lb/A)	100.0
P Index Value		54			54			72			49			49			64	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	43	-22	-102	43	-22	-102	43	-22	-102	69	0	32	69	0	32	69	0	32
Supplemental Fertilizer (lb/A)	43	0	0	43	0	0	43	0	0	69	0	32	69	0	32	69	0	32
P Index Application Method		-	-		-	-		-	-								-	
Final Nutrient Balance (Ib/A)	0	-22	-102	0	-22	-102	0	-22	-102	0	0	0	0	0	0	0	0	0
Multiple Application	-			-			-				-	-	-	-		-		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	t Balances for P2O5 and K2O sed on Crop Removal and LD NOT be used to determine and fertilizer needs		Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t ertilizer needs	05 and K2O oval and to determine S	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	x Version 2				
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	R18 Corn Silage Liquid Manure Winter
Is the CMU in a Special Protection watershed?		Is the CMU in a Special	Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant far	m management change as c	lefined by Act 38?	If the answer is Yes to	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	166
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dista	ance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?			Yes
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B volu	untarily? (Answers are Not	to all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)			Mehlich 3 Soil Test P (pp	om P)		166
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						33
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	ethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	122
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	1
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeffi	cient				98
Source Factor Sum						131
PART B: TRANSPORT FACTORS				-1		0.55
EROSION			Soli Loss (tori/acre/y	r)		0.55
RUNOFF POTENTIAL	0 <i>Drainage Class is</i> Excessively	2 <i>Drainage Class is</i> Somewhat Excessively	4 <i>Drainage Class is</i> Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	2
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contribu	uting Distance	·	·	·	7
MODIFIED CONNECTIVITY	50 ft. Ri APPLIES TC	0.85 parian Buffer ) DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24				•		0.27
P Index Value = 2 x Source x Transport						72
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied		

OR rapidly permeable soil near a stream
"9" factor does not apply to fields receiving manure with a 35 ft. buffer.
Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

PART A: SCREENING TOOL CMU/Field ID	R18 Corn Silage Solid Manure Winter	R19 Corn Silage Liquid Manure Spring	R19 Corn Silage Liquid Manure Fall	R19 Corn Silage Liquid Manure Winter	R19 Corn Silage Solid Manure Spring	R19 Corn Silage Solid Manure Fall	R19 Corn Silage Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	166	293	293	293	293	293	293
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	166	293	293	293	293	293	293
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	33	59	59	59	59	59	59
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80
Source Factor Sum	113	118	118	157	107	107	139
PART B: TRANSPORT FACTORS EROSION	0.55	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	2	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	7	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.27	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	62	54	54	72	49	49	64

Low: 59 or less

Nitrogen based management

# Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

							Planned Manure		St Fei	arter/Oth tilizer (Ib	ner b/A)	Su Fer	pplemer tilizer (Il	ntal b/A)	Nutr	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O
R1_2 Small Grain Silage Liquid Manure Spring	R1_2	14.9	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R1_2 Small Grain Silage Liquid Manure Fall	R1_2	14.9	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R1_2 Small Grain Silage Liquid Manure Winter	R1_2	14.9	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R1_2 Small Grain Silage Solid Manure Spring	R1_2	14.9	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R1_2 Small Grain Silage Solid Manure Fall	R1_2	14.9	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R1_2 Small Grain Silage Solid Manure Winter	R1_2	14.9	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R3 Small Grain Silage Liquid Manure Spring	R3	4.3	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R3 Small Grain Silage Liquid Manure Fall	R3	4.3	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94

									St Fe	arter/Otl rtilizer (II	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nut	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Сгор	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R3 Small Grain Silage Liquid Manure Winter	R3	4.3	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R3 Small Grain Silage Solid Manure Spring	R3	4.3	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R3 Small Grain Silage Solid Manure Fall	R3	4.3	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R3 Small Grain Silage Solid Manure Winter	R3	4.3	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R4 Small Grain Silage Liquid Manure Spring	R4	3.9	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R4 Small Grain Silage Liquid Manure Fall	R4	3.9	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R4 Small Grain Silage Liquid Manure Winter	R4	3.9	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R4 Small Grain Silage Solid Manure Spring	R4	3.9	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R4 Small Grain Silage Solid Manure Fall	R4	3.9	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R4 Small Grain Silage Solid Manure Winter	R4	3.9	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R5B Small Grain Silage Liquid Manure Spring	R5B	4.1	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94

									St Fe	tarter/Oth rtilizer (II	ner b/A)	Su Fer	pplemer tilizer (II	ntal b/A)	Nut	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O
R5B Small Grain Silage Liquid Manure Fall	R5B	4.1	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R5B Small Grain Silage Liquid Manure Winter	R5B	4.1	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R5B Small Grain Silage Solid Manure Spring	R5B	4.1	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R5B Small Grain Silage Solid Manure Fall	R5B	4.1	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R5B Small Grain Silage Solid Manure Winter	R5B	4.1	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R6 Small Grain Silage Liquid Manure Spring	R6	5.1	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R6 Small Grain Silage Liquid Manure Fall	R6	5.1	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R6 Small Grain Silage Liquid Manure Winter	R6	5.1	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R6 Small Grain Silage Solid Manure Spring	R6	5.1	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R6 Small Grain Silage Solid Manure Fall	R6	5.1	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R6 Small Grain Silage Solid Manure Winter	R6	5.1	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0

									St Fei	arter/Oth rtilizer (II	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nuti	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R7 Small Grain Silage Liquid Manure Spring	R7	3.1	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R7 Small Grain Silage Liquid Manure Fall	R7	3.1	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R7 Small Grain Silage Liquid Manure Winter	R7	3.1	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R7 Small Grain Silage Solid Manure Spring	R7	3.1	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R7 Small Grain Silage Solid Manure Fall	R7	3.1	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R7 Small Grain Silage Solid Manure Winter	R7	3.1	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R8 Small Grain Silage Liquid Manure Spring	R8	9	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R8 Small Grain Silage Liquid Manure Fall	R8	9	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R8 Small Grain Silage Liquid Manure Winter	R8	9	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R8 Small Grain Silage Solid Manure Spring	R8	9	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R8 Small Grain Silage Solid Manure Fall	R8	9	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0

									St Fei	arter/Oth rtilizer (II	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nut	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R8 Small Grain Silage Solid Manure Winter	R8	9	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R9 Small Grain Silage Liquid Manure Spring	R9	2.1	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R9 Small Grain Silage Liquid Manure Fall	R9	2.1	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R9 Small Grain Silage Liquid Manure Winter	R9	2.1	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R9 Small Grain Silage Solid Manure Spring	R9	2.1	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R9 Small Grain Silage Solid Manure Fall	R9	2.1	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R9 Small Grain Silage Solid Manure Winter	R9	2.1	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R10 Small Grain Silage Liquid Manure Spring	R10	6.2	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R10 Small Grain Silage Liquid Manure Fall	R10	6.2	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R10 Small Grain Silage Liquid Manure Winter	R10	6.2	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R10 Small Grain Silage Solid Manure Spring	R10	6.2	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0

									St Fer	arter/Oth tilizer (It	ner b/A)	Suj Fert	oplemer tilizer (II	ntal b/A)	Nuti	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O
R10 Small Grain Silage Solid Manure Fall	R10	6.2	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R10 Small Grain Silage Solid Manure Winter	R10	6.2	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R11 Small Grain Silage Liquid Manure Spring	R11	2.2	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R11 Small Grain Silage Liquid Manure Fall	R11	2.2	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R11 Small Grain Silage Liquid Manure Winter	R11	2.2	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R11 Small Grain Silage Solid Manure Spring	R11	2.2	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R11 Small Grain Silage Solid Manure Fall	R11	2.2	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R11 Small Grain Silage Solid Manure Winter	R11	2.2	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R12 Small Grain Silage Liquid Manure Spring	R12	3.3	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R12 Small Grain Silage Liquid Manure Fall	R12	3.3	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R12 Small Grain Silage Liquid Manure Winter	R12	3.3	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94

									St Fer	arter/Oth tilizer (Ib	ner b/A)	Su Fer	ppleme tilizer (l	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O
R12 Small Grain Silage Solid Manure Spring	R12	3.3	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R12 Small Grain Silage Solid Manure Fall	R12	3.3	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R12 Small Grain Silage Solid Manure Winter	R12	3.3	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R13 Small Grain Silage Liquid Manure Spring	R13	6.3	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R13 Small Grain Silage Liquid Manure Fall	R13	6.3	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R13 Small Grain Silage Liquid Manure Winter	R13	6.3	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R13 Small Grain Silage Solid Manure Spring	R13	6.3	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R13 Small Grain Silage Solid Manure Fall	R13	6.3	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R13 Small Grain Silage Solid Manure Winter	R13	6.3	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R14 Small Grain Silage Liquid Manure Spring	R14	4	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R14 Small Grain Silage Liquid Manure Fall	R14	4	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94

									St Fer	arter/Oth tilizer (It	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nut	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R14 Small Grain Silage Liquid Manure Winter	R14	4	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R14 Small Grain Silage Solid Manure Spring	R14	4	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R14 Small Grain Silage Solid Manure Fall	R14	4	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R14 Small Grain Silage Solid Manure Winter	R14	4	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R15 Small Grain Silage Liquid Manure Spring	R15	3.6	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R15 Small Grain Silage Liquid Manure Fall	R15	3.6	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94
R15 Small Grain Silage Liquid Manure Winter	R15	3.6	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R15 Small Grain Silage Solid Manure Spring	R15	3.6	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R15 Small Grain Silage Solid Manure Fall	R15	3.6	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R15 Small Grain Silage Solid Manure Winter	R15	3.6	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0
R16 Small Grain Silage Liquid Manure Spring	R16	3.3	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	78	0	0	0	-66	-94

								St Fei	arter/Oth rtilizer (II	ner b/A)	Su Fer	pplemer tilizer (II	ntal b/A)	Nuti	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R16 Small Grain Silage Liquid Manure Fall	R16	3.3	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	78	0	0	0	-66	-94
R16 Small Grain Silage Liquid Manure Winter	R16	3.3	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000 gal/A	0	0	0	30	0	0	0	-66	-94
R16 Small Grain Silage Solid Manure Spring	R16	3.3	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	104	0	40	0	-44	0
R16 Small Grain Silage Solid Manure Fall	R16	3.3	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	104	0	40	0	-44	0
R16 Small Grain Silage Solid Manure Winter	R16	3.3	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10 tons/A	0	0	0	82	0	40	0	-44	0
R17 Small Grain Silage Liquid Manure Spring	R17	2.2	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	78	0	0	0	-66	-94
R17 Small Grain Silage Liquid Manure Fall	R17	2.2	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	78	0	0	0	-66	-94
R17 Small Grain Silage Liquid Manure Winter	R17	2.2	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000 gal/A	0	0	0	30	0	0	0	-66	-94
R17 Small Grain Silage Solid Manure Spring	R17	2.2	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	104	0	40	0	-44	0
R17 Small Grain Silage Solid Manure Fall	R17	2.2	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	104	0	40	0	-44	0
R17 Small Grain Silage Solid Manure Winter	R17	2.2	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10 tons/A	0	0	0	82	0	40	0	-44	0

## **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R1_2 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R1_2 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R3 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R3 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R5B Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R5B Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R7 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R7 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R8 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R8 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R10 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R10 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R12 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R12 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R14 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R14 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R15 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R15 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R16 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may not be applied to this field if it is snow or ice covered.
R16 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R17 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
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CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R17 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R1_2 Sm	all Grain Sila ⁄Ianure Sprin	ige Liquid g	R1_2 Sm	all Grain Sila Manure Fall	ge Liquid	R1_2 Sm	all Grain Sila /anure Winte	age Liquid er	R1_2 Sn	nall Grain Sila Manure Sprin	age Solid g	R1_2 Sn	nall Grain Sila Manure Fall	age Solid	R1_2 Sm N	all Grain Sila Anure Winte	age Solid ar
Crop Group Indentification		D4 0			D4 0			D4 0			D4 0			D1 0				
		R1_2			R1_2			R1_2			R1_2			R1_2				
Acres		14.9			14.9			14.9			14.9			14.9			14.9	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	-		ppm P		
For Option 3 enter soil test for Pl	223			223			223			223			223			223		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	)	v	/inter Soil Te	est P		Soil Test F	0		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Sil	age	Sm	nall Grain Sila	age	Sn	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																	ļ	
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		•	•			-		•	÷		•	•						
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0	1	
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter rop
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leo	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year jume
Net Nutrients Required (Ib/A)	0 Legume			125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: E Small grain	arly Spring U is and establ or legume ha	Itililization. ished grass ly	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	Irly Spring Ut s and establi or legume ha	tililization. ished grass y
Aveilebility Festere	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		21.044	gal/A		21.044	gal/A		10.531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3.684	gal/A		3.684	gal/A		3.684	gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		40	00.0		40	00.0		56	00.0			00.0			00.0		49	00.0
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	aal/A		8.000	A/len		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,			-,	94		-,	90									
(Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78 -66 -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78     0     0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method									1					1				
Final Nutrient Balance (lb/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD No additional fe	ances for P20 1 Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R3 Small Gr	R3 Small Grain Silage Liquid Manur Spring R3			rain Silage Lio Fall	quid Manure	R3 Small Gr	ain Silage L Winter	iquid Manure	R3 Small G	rain Silage S Spring	olid Manure	R3 Small G	Grain Silage S Fall	olid Manure	R3 Small G	rain Silage So Winter	olid Manure
Crop Group Indentification																		
Fields		R3			R3			R3			R3			R3			R3	
Acres		4.3			4.3			4.3			4.3			4.3			4.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1						1		_	1		_	. <u> </u>	
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P			ppm P			ppm P	_		ppm P	1	
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	157			157			157			157			157			157	1	
P Index Part A Evaluation								Winter									Winter	
Part A Result		N Based			N Based			Part B			N Based			N Based			Part B	
Сгор	Sm	nall Grain Sila	age	Sn	nall Grain Sila	ige	Sm	nall Grain Sil	age	Sm	nall Grain Sila	age	Sr	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	8 ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					J									,				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (lb/A)	11	Continuous	sly - Winter op	11	Continuous	sly - Winter	11	Continuou	sly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter	11	Continuous Cr	sly - Winter
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leo	ious Year gume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 Legume 125 56 208			125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	125 56 208 Liquid Cattle Manure			Liquid Cattle	Manure	200	Liquid Cattle	Manure	200	Solid Cattle	Manure	200	Solid Cattle	Manure	200	Solid Cattle	Manure	200
	lb/1000 gal	manare		lb/1000 gal	Manaro		lb/1000 gal	manare		lb/ton	Manaro		lb/ton	Manare		lb/ton	Manaro	
Manura Nutriant Contant	N	P205	K 20	N	P205	K 20	N	P205	K 20	N N	P2O5	K 20	N	P2O5	K20	N	P205	K-20
(he/top or 1000 gel)	20.69	15 20	27.70	20.69	15.20	27.70	20.69	15 203	27.70	10.67	10.02	16.92	10.67	10.02	16.02	10.67	10.02	16.92
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L s and estab or legume ha	Itililization. lished grass	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	ililization. shed grass
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method		Select Metho	d		Select Methor	b	Surface app.	when frozen/	snow covered		Select Metho	d		Select Metho	d	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	dal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P R	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		( )		· ·	( )		·	50			, ,			( )			43	
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	gal/A		8.000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	gant		-,	94.77		-,	90								····	
(Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78 -66 -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	78 0 0			78	0	0	30	0	0	104	0	40	104	0	40	82	U	40
P Index Application Method					1	-			1		1	1		1	i		·	
Final Nutrient Balance (Ib/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	0 -66 -94 Nutrient Balances for P2O5 and K20 are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Rem DT be used rtilizer need	05 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R4 Small Gr	R4 Small Grain Silage Liquid Manur Spring R4 3.9			ain Silage Lio Fall	quid Manure	R4 Small Gr	ain Silage L Winter	iquid Manure	R4 Small G	rain Silage S Spring	olid Manure	R4 Small G	Grain Silage S Fall	olid Manure	R4 Small G	rain Silage S Winter	olid Manure
Crop Group Indentification																		
Fields		R4			R4			R4			R4			R4			R4	
Acres		3.9			3.9			3.9			3.9			3.9			3.9	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking	_						_			_			_	1		_	-	
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	_		ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	335			335			335			335			335			335		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	W	/inter Soil Te	est P		Soil Test F	<b>)</b>		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sn	nall Grain Sila	age	Sm	nall Grain Sil	age	Sn	nall Grain Sila	age	Sr	nall Grain Sila	age	Sm	all Grain Sila	ige
Planned Yield		8	ton/A		8	ton/A		8	8 ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P205	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		ι			1			1			ι	l		1				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description	11	Continuous	sly - Winter	11	Continuous	sly - Winter	11	Continuou	sly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter
Legume History Description	0	No Previ	ous Year	0	No Previ	op ous Year	0	No Prev	ious Year	0	No Previ	ous Year	0	No Previ	ous Year	0	No Previ	op ous Year
	0 Legume				Ley	ume		LOĮ	Juille		Leg	ume		Leg	ume		Leg	
Net Nutrients Required (Ib/A)	125     56     208       Liquid Cattle Mapura     1000000000000000000000000000000000000			125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	e Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L is and establ or legume ha	Itililization. lished grass ay	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	iililization. shed grass ⁄
Asselled Block Frankran	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21.044	gal/A		21.044	gal/A		10.531	gal/A		. 59	tons/A		. 59	tons/A		29	tons/A
P Removal Balance Manure Rate		3.684	gal/A		3.684	gal/A		3.684	gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		49	00.0		49	00.0		64	00.0		45	00.0		45	00.0		57	00.0
Planned Manure Rate (ton or gal/A)		8.000	nal/A		8.000	aal/A		8.000	Allen (		10	tons/A		10	tons/A		10	tons/A
Nutrionte Applied at Planped Manure Rate		0,000	guirA		0,000	guirA		0,000	guira									
(Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78 -66 -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78 0 0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method					1			1	1		1	1		1	1			
Final Nutrient Balance (Ib/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application	<u> </u>																	
Soil test or Crop Removal	0 -66 -94 Nutrient Balances for P2O5 and K2 are based on Crop Removal and SHOULD NOT be used to determin additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Rem OT be used rtilizer needs	05 and K2O oval and to determine s	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used to ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R5B Sm M	all Grain Sila Manure Sprin	ge Liquid g	R5B Sm	all Grain Sila Manure Fall	ge Liquid	R5B Sm	all Grain Sila Manure Wint	age Liquid er	R5B Sm	all Grain Sila ⁄Ianure Sprin	ige Solid g	R5B Sm	nall Grain Sila Manure Fall	ige Solid	R5B Sm N	all Grain Sila Ianure Winte	ige Solid er
Crop Group Indentification		DED			DED			DED			DED			DED			DED	
		R5B			R5B			R5B			R5B			K5B			K5B	
Acres		4.1			4.1			4.1			4.1			4.1			4.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking								1										
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P			ppm P		
For Option 3 enter soil test for Pl	329			329			329			329			329			329		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	•	V	/inter Soil Te	est P		Soil Test F	0		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	ige	Sn	nall Grain Sil	age	Sn	nall Grain Sila	age	Sn	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	3 ton/A		8	ton/A		8	ton/A		8	ton/A
Cree Demovel Decommon defines (LD/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		•	-						•			•		·			-	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	isly - Winter rop	11	Continuou: Ci	sly - Winter op	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leç	rious Year gume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37 70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L is and establ or legume ha	Itililization. lished grass ay	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass y
Availability, Fastara	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		. 59	tons/A		. 59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	1 gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	) 56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		49		·	49			64			44			44		·	57	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate			J															
(lb/A)	47 122 302			47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78 -66 -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	78 0 0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method					-	-		1	1		1				1			
Final Nutrient Balance (lb/A)	0	-66	-94	0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used rtilizer needs	2O5 and K2O oval and to determine s	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R6 Small G	R6 Small Grain Silage Liquid Manur Spring R6 5.1			rain Silage Li Fall	quid Manure	R6 Small G	rain Silage L Winter	iquid Manure	R6 Small G	rain Silage S Spring	olid Manure	R6 Small G	Grain Silage S Fall	olid Manure	R6 Small G	rain Silage S Winter	olid Manure
Fields		R6			R6			R6			R6			R6			R6	
Acres		5.1			5.1			5.1			5.1			5.1			5.1	
NBS Option	Option 3 P I	Index Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	370			370			370			370			370			370		
P Index Part A Evaluation		Soil Test F	<b>)</b>		Soil Test F	<b>)</b>	V	/inter Soil Te	est P		Soil Test F	>		Soil Test F	>	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sn	nall Grain Sila	age	Sn	nall Grain Sila	age	Sn	nall Grain Sil	age	Sn	nall Grain Sila	age	Sr	mall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	3 ton/A		8	ton/A		8	ton/A		8	ton/A
Crop Removal Recommandations (LR(A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuou: Ci	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	isly - Winter rop	11	Continuou Ci	sly - Winter rop	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	rious Year gume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	12556208Liquid Cattle Manure			Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	Ν	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L is and estab or legume ha	Itililization. lished grass ay	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. ished grass y
Availability Eastern	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk	April - Oct:	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		10,531	l gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	1 gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A	) 56.0	Crop P Re	emoval (lb/A)	56.0	Crop P R	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		52			52			67			48			48			60	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	4/     122     302       78     -66     -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78     -66     -94       78     0     0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method	78 0 0					1		1				1		1				
Final Nutrient Balance (lb/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application	0 -66 -94			-			-			-			-	1		-		-
Soil test or Crop Removal	0 -66 -94 Nutrient Balances for P2O5 and K2 are based on Crop Removal and SHOULD NOT be used to determin additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD No additional fe	ances for P2 n Crop Rem OT be used rtilizer needs	2O5 and K2O oval and to determine s	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P2 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R7 Small Gr	R7 Small Grain Silage Liquid Manure Spring R7 3 1			rain Silage Lio Fall	quid Manure	R7 Small Gr	ain Silage L Winter	iquid Manure	R7 Small G	rain Silage S Spring	olid Manure	R7 Small G	Grain Silage S Fall	olid Manure	R7 Small G	rain Silage S Winter	olid Manure
Crop Group Indentification																		
Fields		R7			R7			R7			R7			R7			R7	
Acres		3.1			3.1			3.1			3.1			3.1			3.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1								_	1		_	1	
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P			ppm P	-		ppm P	_		ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	355			355			355			355			355			355		
P Index Part A Evaluation		Soil Test F	)		Soil Test P	)	W	/inter Soil Te	est P		Soil Test F	2		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sn	nall Grain Sila	ige	Sm	nall Grain Sil	age	Sn	nall Grain Sila	age	Sr	nall Grain Sila	age	Sm	all Grain Sila	ige
Planned Yield		8	ton/A		8	ton/A		8	8 ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		ι			J							ι		1				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description	11	Continuous	sly - Winter	11	Continuous	sly - Winter	11	Continuou	sly - Winter	11	Continuou	sly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter
Legume History Description	0	No Previ	ous Year	0	No Previ	op ous Year	0	No Prev	ious Year	0	No Previ	ious Year	0	No Previ	ous Year	0	No Previ	op ous Year
	0 Legume				Legi	ume		Leí	Juille		Leg	ume		Leg	ume		Leg	
Net Nutrients Required (Ib/A)	125     56     208       Liquid Cattle Mapure     1000000000000000000000000000000000000			125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	e Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L s and estab or legume ha	Itililization. lished grass ay	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	tililization. shed grass ⁄
Availability, Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		. 59	tons/A		. 59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	dal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		51		· ·	51			66			46			46			59	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate			J					,	J.									
(lb/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78 -66 -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	78 0 0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method									-		-			1				
Final Nutrient Balance (Ib/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	0 -66 -94 Nutrient Balances for P2O5 and K2 are based on Crop Removal and SHOULD NOT be used to determin additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Rem DT be used rtilizer need	05 and K2O oval and to determine S	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R8 Small Gr	R8 Small Grain Silage Liquid Manur Spring R8 9.0			rain Silage Lie Fall	quid Manure	R8 Small Gr	ain Silage L Winter	iquid Manure	R8 Small G	rain Silage S Spring	olid Manure	R8 Small G	Grain Silage S Fall	olid Manure	R8 Small G	rain Silage S Winter	olid Manure
Fields		R8			R8			R8			R8			R8			R8	
Acres		9.0			9.0			9.0			9.0			9.0			9.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	208			208			208			208			208			208		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	<b>)</b>	W	/inter Soil Te	est P		Soil Test F	2		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sn	nall Grain Sila	age	Sm	nall Grain Sil	age	Sn	nall Grain Sila	age	Sr	nall Grain Sila	age	Sm	nall Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	3 ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	isly - Winter rop	11	Continuou Ci	sly - Winter rop	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	rious Year gume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	Ν	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L as and estab or legume ha	Jtililization. lished grass ay	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. win system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass y
Availability Eastern	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	l gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A	) 56.0	Crop P Re	emoval (lb/A)	56.0	Crop P R	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0
P Index Value		39			39			54			35			35			47	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	4/     122     302       78     -66     -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78     -66     -94       78     0     0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method	78 0 0																	
Final Nutrient Balance (lb/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application	0 -66 -94																	
Soil test or Crop Removal	0 -66 -94 Nutrient Balances for P2O5 and K2 are based on Crop Removal and SHOULD NOT be used to determin additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Rem OT be used rtilizer need	2O5 and K2O oval and to determine s	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R9 Small Gr	R9 Small Grain Silage Liquid Manur Spring R9 2.1			rain Silage Lio Fall	quid Manure	R9 Small Gr	ain Silage L Winter	iquid Manure	R9 Small G	rain Silage S Spring	olid Manure	R9 Small G	Grain Silage S Fall	olid Manure	R9 Small G	rain Silage So Winter	olid Manure
Crop Group Indentification																		
Fields		R9			R9			R9			R9			R9			R9	
Acres		Z. I			Z. I			2.1			Z. I			Z.1			Z.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking				_									-					
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	_		ppm P		
For Option 3 enter soil test for Pl	269			269			269			269			269			269		
P Index Part A Evaluation		Soil Test F	)		Soil Test P	)	W	/inter Soil Te	est P		Soil Test F	<b>b</b>		Soil Test F	<b>b</b>	W	/inter Soil Ter	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Sm	nall Grain Sila	age	Sn	nall Grain Sila	age	Sn	hall Grain Sil	age	Sn	nall Grain Sila	age	Sr	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	8 ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					J									,				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (lb/A)	11	Continuous	sly - Winter	11	Continuous	sly - Winter	11	Continuou	sly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Legi	ous Year ume	0	No Prev Leo	ious Year gume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	U     Legume       125     56     208			125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	12556208Liquid Cattle Manure			Liquid Cattle	Manure	200	Liquid Cattle	Manure	200	Solid Cattle	Manure	200	Solid Cattle	Manure	200	Solid Cattle	Manure	200
	lb/1000 gal	manare		lb/1000 gal	Manaro		lb/1000 gal	manare		lb/ton	Manaro		lb/ton	Manare		lb/ton	Manaro	
Manura Nutriant Contant	N	P205	K 20	N	P205	K 20	N	P205	K 20	N	P2O5	K 20	N	P2O5	K20	N	P205	K-20
(lbs/top or 1000 gol)	20.69	F200	27.70	20.69	F200	27.70	20.69	F200	27.70	10.67	F203	16.92	10.67	F200	16.02	10.67	F200	16.92
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L s and estab or legume ha	Itililization. lished grass	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	ililization. shed grass
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P R	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		44		· ·	44			59			40			40			52	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate			J			J		,	J.								· · · · ·	
(lb/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78 -66 -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	78     0     0			/8	0	U	30	0	0	104	0	40	104	0	40	82	U	40
P Index Application Method										-					-			
Final Nutrient Balance (Ib/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	0 -66 -94 Nutrient Balances for P2O5 and K2r are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Rem DT be used rtilizer needs	O5 and K2O oval and to determine S	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 1 Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R10 Sma	R10 Small Grain Silage Liquid Manure Spring R10 6.2			all Grain Silaq Manure Fall	ge Liquid	R10 Sm:	all Grain Sila Manure Winte	ge Liquid er	R10 Sm N	all Grain Sila /Ianure Sprin	ge Solid g	R10 Sm	nall Grain Sila Manure Fall	ige Solid	R10 Sm M	all Grain Sila Ianure Winte	ge Solid r
Crop Group Indentification		D10			<b>D</b> 10			D10			<b>D</b> 40			D10			D10	
		62			62			62			62			62			62	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test																	i -	
For Option 3 enter soil test for PI	326			326			326			326			326			326	I.	
P Index Part A Evaluation		Soil Test F	2		Soil Test F	<b>)</b>	V	/inter Soil Te	est P		Soil Test F	)		Soil Test F	2	W	inter Soil Ter	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sn	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Sil	age	Sm	nall Grain Sila	age	Sr	nall Grain Sila	age	Sm	all Grain Sila	ige
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
Crop Romoval Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					μ	ι			ų					Į				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- lys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U as and establ or legume ha	Itililization. lished grass	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	rrly Spring Ut s and establi or legume hay	ililization. shed grass
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or i	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		50			50			65			45			45			58	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	47 122 302			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78     -66     -94       78     0     0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method	78 0 0				-	-		-	-		-			-				
Final Nutrient Balance (Ib/A)	06694			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application	0 -66 -94			-			-			-		-				-		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	78 0 0   0 -66 -94   Nutrient Balances for P2O5 and K are based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	Inces for P20 Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R11 Sma	all Grain Sila Ianure Sprin	ge Liquid g	R11 Sma	all Grain Silaç Manure Fall	ge Liquid	R11 Sma M	all Grain Sila Manure Winte	ge Liquid er	R11 Sm N	all Grain Sila /Ianure Sprin	ge Solid g	R11 Sm	all Grain Sila Manure Fall	age Solid	R11 Sm M	all Grain Sila 1anure Winte	ge Solid er
Crop Group Indentification		D11			D44			D11			D11			D11			D11	
Acres		22			22			22			22			22			22	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must b	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test																	i.	
For Option 3 enter soil test for PI	268			268			268			268			268			268	i.	
P Index Part A Evaluation		Soil Test F	<b>)</b>		Soil Test F	)	W	/inter Soil Te	st P		Soil Test F	)		Soil Test F	2	W	inter Soil Ter	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sm	nall Grain Sil	age	Sm	nall Grain Sila	ige	Sn	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
Cran Demoval Decommon dations (LD(A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			°														· · · · ·	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuou	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leo	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previo Legi	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. winte system: Ince	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do corporated aff none	utilization uble crop er 7 days or	Winter: Ea Small grain	rly Spring Ut s and establi r legume hay	tililization. shed grass y
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	corp > 1 wk.	April - Oct: I	No incorp or i	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		45			45			61			41			41			53	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	47 122 302			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	<u>78</u> -66 -94 78 0 0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method	78 0 0				Ŭ	Ŭ		ů	Ŭ		Ŭ			ů	10	02		10
Final Nutrient Balance (Ib/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application	0 -66 -94					•.			•.						, ,			
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Rem OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O val and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	Inces for P20 Crop Remo T be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R12 Sma	all Grain Silag Aanure Sprin	ge Liquid g	R12 Sma	all Grain Silao Manure Fall	ge Liquid	R12 Sm N	all Grain Sila Manure Winte	ge Liquid er	R12 Sm	all Grain Sila /Ianure Sprin	ige Solid g	R12 Sm	all Grain Sila Manure Fall	ige Solid	R12 Sm	all Grain Sila Ianure Winte	ge Solid r
Crop Group Indentification		<b>D12</b>			<b>D1</b> 2			P12			<b>D12</b>			D12			<b>D1</b> 2	
Fields		22			22			22			22			2.2			2.2	
Acres		3.3			3.3			3.3			3.3			3.3			3.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking	_							1		_				1		-		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P	-		ppm P		
For Option 2 enter maximum Soli Test For Option 3 enter soil test for Pl	270			270			270			270			270			270		
P Index Part A Evaluation		Soil Test F	2		Soil Test F	)	V	/inter Soil Te	st P		Soil Test F	2		Soil Test F	2	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Sil	age	Sm	all Grain Sila	age	Sn	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P205	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			·					·	•			·			·			
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	11     Continuously - Wint       0     No Previous Year       125     56     208			0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- lys or none	Early Fall: incl. winte system: Ince	Early spring er crop in dou orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- lys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	ililization. shed grass /
Asselled Block Frankran	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or i	ncorp > 1 wk.	April - Oct: 1	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)	1	21.044	nal/A	1	21.044	nal/A		10.531	nal/A	1	59	tons/A		59	tons/A		29	tons/A
P Pomoval Balance Manure Pate		3 684	nal/A		3 684	nal/A		3 684	A/la		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A: If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
R Index Violue		//////////////////////////////////////	30.0		45	50.0		61	50.0		/11	30.0		(۲۸) sinovai	50.0		53	50.0
		4J 0 000	mal/A		9 000	mal/A		8 000	mal/A		41	4000/8		41	1000/8		10	tonalA
		0,000	yai/A		0,000	yai/A		0,000	yai/A		10	tons/A		10	IONS/A		10	lons/A
(lb/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78 -66 -94			78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78     -66     -94       78     0     0			78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method	78 0 0																	
Final Nutrient Balance (lb/A)	0 -66 -94			0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application	0 -66 -94														•			
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R13 Sma	all Grain Silaç ⁄Ianure Sprin	ge Liquid g	R13 Sma	all Grain Silaç Manure Fall	ge Liquid	R13 Sm N	all Grain Sila Manure Winte	ge Liquid er	R13 Sm	all Grain Sila /anure Sprin	ige Solid g	R13 Sm	nall Grain Sila Manure Fall	ge Solid	R13 Sm	all Grain Sila /anure Winte	ige Solid er
Fields		R13			R13			R13			R13			R13			R13	
Acres		6.3			6.3			6.3			6.3			6.3			6.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Moblich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test	212			212	-		212	-		212			212	-		212		
For Option 3 enter soil test for PI	512			512			512			512			512			512		
P Index Part A Evaluation	-	Soil Test F	)		Soil Test F	)	V	/inter Soil Te	est P		Soil Test F			Soil Test F	)	N	/inter Soil Te	st P
Part A Result		Part B		_	Part B		_	Part B			Part B			Part B			Part B	
Crop	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Sil	age	Sn	hall Grain Sila	age	Sn	nall Grain Sila	age	Sm	nall Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
Crop Removal Recommendations (LB/A)	N 126	P2O5	K2O	N 126	P2O5	K2O	N 126	P2O5	K2O	N 126	P2O5	K2O	N 126	P2O5	K2O	N 136	P2O5	K2O
Soil Test Recommendation (Ib/A)	130	50	200	130	50	200	130	50	200	150	50	200	150	50	200	130	50	200
Other Nutrients Applied (Ib/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		L	l			l												
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter rop	11	Continuou: Ci	sly - Winter rop
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/top or 1000 gal)	29.68	15.20	37 70	29.68	15 20	37.70	29.68	15 20	37 70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U is and establ or legume ha	Itililization. ished grass ly	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- lys or none	Early Fall: incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. ished grass y
Ausilahilitu, Fastara	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0
P Index Value		48			48			64			44			44			57	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	94.77		-,	94.71		-,	9									
(Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78	-66	-94	78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	78	0	0	78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method																		_
Final Nutrient Balance (lb/A)	0	-66	-94	0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R14 Sma	all Grain Sila Manure Sprin	ge Liquid g	R14 Sma	all Grain Silag Manure Fall	ge Liquid	R14 Sm	all Grain Sila ⁄Ianure Winte	ge Liquid er	R14 Sm N	all Grain Sila ⁄Ianure Sprin	ge Solid g	R14 Sm	all Grain Sila Manure Fall	ige Solid	R14 Sm M	all Grain Sila Ianure Winte	ge Solid r
Crop Group Indentification		D14			D14			D14			D14			D14			P14	
Acros		4.0			4.0			4.0			4.0			4.0			4.0	
ACIES		4.0			4.0			4.0			4.0			4.0			4.0	
NBS Option	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking		1												1				
Mehlich 3 Soil Test P	ppm P	-		ppm P			ppm P	-		ppm P			ppm P	-		ppm P	1	
For Option 2 enter soil test for PI	283			283			283			283			283			283	<u> </u>	
P Index Part A Evaluation		Soil Test F	0		Soil Test F	)	v	/inter Soil Te	est P		Soil Test F	)		Soil Test F	5	W	inter Soil Ter	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Sil	age	Sm	nall Grain Sila	age	Sn	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
	Ν	P2O5	K20	N	P205	K2O	N	P2O5	K2O	N	P205	K2O	N	P2O5	K20	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)					-							-						
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method														,				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuou	sly - Winter rop	11	Continuous	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/top or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37 70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- lys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: E Small grain	arly Spring U is and establ or legume ha	Itililization. ished grass	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	rly Spring Ut s and establi or legume hay	tililization. shed grass
Aveilebility, Festere	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)	1	21.044	nal/A		21.044	nal/A		10.531	nal/A		59	tons/A		59	tons/A		29	tons/A
P Pomoval Balance Manure Pate		3 684	nal/A		3 684	nal/A		3 684	A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A: If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P R	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
	CIUP F IN	======================================	56.0	CIUPFIKE	======================================	30.0	стор г Ка	71 TIUVAI (ID/A)	50.0	CIOPFILE	(D/A)	30.0	CIOPERC	(۲۸/۵۱) inioval (۱۵/۲۸) ۸۵	50.0	CIUP F INC	62	30.0
P Index value		00			0.000			7 1			40	1		40	1 / 4		03	114
Planned Manure Rate (ton or gal/A)		8,000	gai/A		8,000	gai/A		8,000	gai/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78	-66	-94	78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78	0	0	78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method																		
Final Nutrient Balance (lb/A)	0	-66	-94	0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application		•							•						•			
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	Inces for P20 Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R15 Sma	all Grain Silaç Aanure Sprin	ge Liquid g	R15 Sma	all Grain Silaç Manure Fall	ge Liquid	R15 Sm N	all Grain Sila Manure Wint	ige Liquid er	R15 Sm	all Grain Sila Manure Sprin	ge Solid g	R15 Sm	nall Grain Sila Manure Fall	ige Solid	R15 Sm N	all Grain Sila Ianure Winte	ige Solid er
Crop Group Indentification		D45			D45			D45			DAG			DAG			DAG	
Fields		3.6			36			36			36			36			36	
		5.0			5.0			5.0			0.0			5.0			5.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking	nnm D			nnm D			nnm D	1		nnm D			nnm D			nnm D		
Menlich 3 Soil Test P For Option 2 enter maximum Soil Test	рршг			рршт	-		рршт	-		ppinr	-		рршт	_		ррште		
For Option 3 enter soil test for PI	283			283			283			283			283			283		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	<b>)</b>	V	/inter Soil Te	est P		Soil Test F	0		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Si	age	Sn	nall Grain Sila	age	Sn	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	3 ton/A		8	ton/A		8	ton/A		8	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					,			,										
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	isly - Winter rop	11	Continuou	sly - Winter op	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	rious Year gume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P205	K20	N	P205	K20	N	P2O5	K20	N	P2O5	K20	N	P205	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L is and estab or legume ha	Itililization. lished grass ay	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. ished grass y
Availability Easters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or i	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		21.044	gal/A		21.044	gal/A		10.531	gal/A		59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	1 gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A	) 56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		53			53			71	,		48			48			63	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>J</b>		-,	<b>J</b>			<b>J</b>		-			-			-	
(Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78	-66	-94	78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	78	0	0	78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method									1									
Final Nutrient Balance (Ib/A)	0	-66	-94	0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used rtilizer need	2O5 and K2O oval and to determine s	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	O5 and K2O oval and o determine

Nutrient Balance Sheets	R16 Sma	all Grain Silag Aanure Sprin	ge Liquid g	R16 Sma	all Grain Silao Manure Fall	ge Liquid	R16 Sm N	all Grain Sila Manure Winte	ge Liquid er	R16 Sm N	all Grain Sila /Ianure Sprin	ge Solid g	R16 Sm	nall Grain Sila Manure Fall	ige Solid	R16 Sm M	all Grain Sila Ianure Winte	ge Solid r
Crop Group Indentification		D16			<b>D16</b>			<b>D16</b>			<b>D16</b>			<b>D16</b>			<b>D16</b>	
		33			33			33			33			33			33	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must b	e Completed	Option 3 P I	ndex Must be	Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for Pl	423			423			423			423			423			423		
P Index Part A Evaluation		Soil Test F	>		Soil Test F	)	v	/inter Soil Te	st P		Soil Test F	)		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Sil	age	Sm	all Grain Sila	age	Sn	nall Grain Sila	age	Sm	all Grain Sila	ige
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		•	•			-			·			-		·				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuou	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. winte system: Ince	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	rly Spring Ut s and establi or legume hay	ililization. shed grass /
Availability Eastern	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or in	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Nov - Mar: N	No incorp or i	ncorp > 1 wk.	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or i	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		. 59	tons/A		59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		66			66		·	75			61			61		·	76	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
(Ib/A)	70		04	70		04	20		04	104	44	40	104	44	40	.0		40
	70	-00	-34	70	-00	-94	30	-00	-94	104	-44	40	104	-44	40	92	-44	40
P Index Application Method	70	0	0	70	0	0	30	0	0	104	0	40	104	0	40	02	0	40
Findex Application Method	0	66	04	0	66	04	0	66	04	0	44	0	0	44	•	0	44	0
	U	-00	-94	U	-00	-94	U	-00	-94	U	-44	U	U	-44	U	U	-44	U
Soil test or Crop Removal	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD No additional fe	Inces for P20 Crop Remo T be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R17 Sma	all Grain Silaç Janure Sprin	ge Liquid g	R17 Sma	all Grain Silaç Manure Fall	ge Liquid	R17 Sm:	all Grain Sila /anure Wint	ige Liquid er	R17 Sm	all Grain Sila Aanure Sprin	ge Solid g	R17 Sm	nall Grain Sila Manure Fall	ge Solid	R17 Sm N	all Grain Sila Ianure Winte	ige Solid er
Crop Group Indentification		D47			D47			D47			D47			D47			D47	
Fields		R17			R17			R17			R17			R17			R17	
Acres		2.2			2.2			2.2			2.2			2.2			2.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	_		ppm P		
For Option 3 enter soil test for Pl	256			256			256			256			256			256		
P Index Part A Evaluation		Soil Test F	0		Soil Test P	•	V	/inter Soil Te	est P		Soil Test F	<b>b</b>		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	ige	Sn	nall Grain Sil	age	Sm	nall Grain Sila	age	Sr	nall Grain Sila	age	Sm	all Grain Sila	age
Planned Yield		8	ton/A		8	ton/A		8	8 ton/A		8	ton/A		8	ton/A		8	ton/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuou	sly - Winter op	11	Continuous	sly - Winter op	11	Continuous Cr	sly - Winter rop
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year gume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure	200	Liquid Cattle	Manure	200	Liquid Cattle	Manure	200	Solid Cattle	Manure	200	Solid Cattle	Manure	200	Solid Cattle	Manure	200
	lb/1000 gal	manaro		lb/1000 gal	manaro		lb/1000 gal	, manaro		lb/ton	manaro		lb/ton	manaro		lb/ton		
Manure Nutrient Content	N N	P205	K20	N N	P205	K20	N	P205	K20	N	P205	K20	N	P2O5	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37 70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring L is and estab or legume ha	Itililization. lished grass ay	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. ished grass y
Availability, Eastara	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		10,531	gal/A		. 59	tons/A		. 59	tons/A		29	tons/A
P Removal Balance Manure Rate		3,684	gal/A		3,684	gal/A		3,684	l gal/A		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P R	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
P Index Value		51	00.0		51	00.0		69	00.0		46	00.0		46	00.0		60	00.0
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	dal/A		8.000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	gant		-,	90071		-,	90									
(Ib/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78	-66	-94	78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (Ib/A)	78	0	0	78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method		r				1		r	1		r	r		T	r		1	1
Final Nutrient Balance (Ib/A)	0	-66	-94	0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used rtilizer needs	O5 and K2O oval and to determine S	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	O5 and K2O oval and o determine

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	k Version 2			-	
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	rool	CMU/Field ID	R1_2 Small Grain Silage Liquid Manure Spring
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	I Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant fai	m management change as c	lefined by Act 38?	If the answer is Yes to	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	223
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	ance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field ?	5		No
Run P Index Part B voluntarily? (No to all Part A questions.)	-	Run P Index Part B vol	untarily? (Answers are Not	to all Part A questions )		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (nom P)	I		Mehlich 3 Soil Test P (pr	om P)		223
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)				,		45
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	122
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.6
P SOURCE COEFFICIENT <sup>3</sup>	Refe	er to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8
Manure Rating = Manure Rate x Manure Application Metho	od x P Source Coeffic	ient				59
Source Factor Sum						104
PART B: TRANSPORT FACTORS						
EROSION			Soil Loss (ton/acre/y	r)		0.68
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contribu	ting Distance			•	5
MODIFIED CONNECTIVITY	50 ft. Rip APPLIES TO	).85 arian Buffer DIST <100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24				1		0.20
P Index Value = 2 x Source x Transport						40
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied		

1 OR rapidly permeable soil near a stream

2 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
3 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

PART A: SCREENING TOOL CMU/Field ID	R1_2 Small Grain Silage Liquid Manure Fall	R1_2 Small Grain Silage Liquid Manure Winter	R1_2 Small Grain Silage Solid Manure Spring	R1_2 Small Grain Silage Solid Manure Fall	R1_2 Small Grain Silage Solid Manure Winter	R3 Small Grain Silage Liquid Manure Winter	R3 Small Grain Silage Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	223	223	223	223	223	157	157
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	Yes	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	223	223	223	223	223	157	157
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	45	45	45	45	45	31	31
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	1	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	98	80
Source Factor Sum	104	143	93	93	125	129	111
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	40	56	36	36	49	50	43

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R4 Small Grain Silage Liquid Manure Spring	R4 Small Grain Silage Liquid Manure Fall	R4 Small Grain Silage Liquid Manure Winter	R4 Small Grain Silage Solid Manure Spring	R4 Small Grain Silage Solid Manure Fall	R4 Small Grain Silage Solid Manure Winter	R5B Small Grain Silage Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	335	335	335	335	335	335	329
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	335	335	335	335	335	335	329
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	67	67	67	67	67	67	66
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	122	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	98	48	48	80	59
Source Factor Sum	126	126	165	115	115	147	125
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	49	64	45	45	57	49

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R5B Small Grain Silage Liquid Manure Fall	R5B Small Grain Silage Liquid Manure Winter	R5B Small Grain Silage Solid Manure Spring	R5B Small Grain Silage Solid Manure Fall	R5B Small Grain Silage Solid Manure Winter	R6 Small Grain Silage Liquid Manure Spring	R6 Small Grain Silage Liquid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	329	329	329	329	329	370	370
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	329	329	329	329	329	370	370
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	66	66	66	66	66	74	74
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	59	59
Source Factor Sum	125	164	114	114	146	133	133
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	64	44	44	57	52	52

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R6 Small Grain Silage Liquid Manure Winter	R6 Small Grain Silage Solid Manure Spring	R6 Small Grain Silage Solid Manure Fall	R6 Small Grain Silage Solid Manure Winter	R7 Small Grain Silage Liquid Manure Spring	R7 Small Grain Silage Liquid Manure Fall	R7 Small Grain Silage Liquid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	370	370	370	370	355	355	355
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	370	370	370	370	355	355	355
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	74	74	74	74	71	71	71
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	100	100	100	122	122	122
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	98	48	48	80	59	59	98
Source Factor Sum	172	122	122	154	130	130	169
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	67	48	48	60	51	51	66

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R7 Small Grain Silage Solid Manure Spring	R7 Small Grain Silage Solid Manure Fall	R7 Small Grain Silage Solid Manure Winter	R8 Small Grain Silage Liquid Manure Spring	R8 Small Grain Silage Liquid Manure Fall	R8 Small Grain Silage Liquid Manure Winter	R8 Small Grain Silage Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	355	355	355	208	208	208	208
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	355	355	355	208	208	208	208
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	71	71	71	42	42	42	42
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	<b>e</b> 0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	98	48
Source Factor Sum	119	119	151	101	101	140	90
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	46	46	59	39	39	54	35

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R8 Small Grain Silage Solid Manure Fall	R8 Small Grain Silage Solid Manure Winter	R9 Small Grain Silage Liquid Manure Spring	R9 Small Grain Silage Liquid Manure Fall	R9 Small Grain Silage Liquid Manure Winter	R9 Small Grain Silage Solid Manure Spring	R9 Small Grain Silage Solid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	208	208	269	269	269	269	269
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	208	208	269	269	269	269	269
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	42	42	54	54	54	54	54
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	<b>e</b> 0	0	0	0	0	0	0
MANURE P RATE	100	100	122	122	122	100	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	98	48	48
Source Factor Sum	90	122	113	113	152	102	102
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	35	47	44	44	59	40	40

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R9 Small Grain Silage Solid Manure Winter	R10 Small Grain Silage Liquid Manure Spring	R10 Small Grain Silage Liquid Manure Fall	R10 Small Grain Silage Liquid Manure Winter	R10 Small Grain Silage Solid Manure Spring	R10 Small Grain Silage Solid Manure Fall	R10 Small Grain Silage Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	269	326	326	326	326	326	326
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	269	326	326	326	326	326	326
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	65	65	65	65	65	65
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>		-	-	-	-	-	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	<b>e</b> 0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80
Source Factor Sum	134	124	124	163	113	113	145
PART B: TRANSPORT FACTORS EROSION	0.68	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	52	50	50	65	45	45	58

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R11 Small Grain Silage Liquid Manure Spring	R11 Small Grain Silage Liquid Manure Fall	R11 Small Grain Silage Liquid Manure Winter	R11 Small Grain Silage Solid Manure Spring	R11 Small Grain Silage Solid Manure Fall	R11 Small Grain Silage Solid Manure Winter	R12 Small Grain Silage Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	268	268	268	268	268	268	270
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	268	268	268	268	268	268	270
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	54	54
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	122	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	98	48	48	80	59
Source Factor Sum	113	113	152	102	102	134	113
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	45	61	41	41	53	45

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R12 Small Grain Silage Liquid Manure Fall	R12 Small Grain Silage Liquid Manure Winter	R12 Small Grain Silage Solid Manure Spring	R12 Small Grain Silage Solid Manure Fall	R12 Small Grain Silage Solid Manure Winter	R13 Small Grain Silage Liquid Manure Spring	R13 Small Grain Silage Liquid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	270	270	270	270	270	312	312
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	270	270	270	270	270	312	312
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	62	62
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>		-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	59	59
Source Factor Sum	113	152	102	102	134	121	121
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	61	41	41	53	48	48

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R13 Small Grain Silage Liquid Manure Winter	R13 Small Grain Silage Solid Manure Spring	R13 Small Grain Silage Solid Manure Fall	R13 Small Grain Silage Solid Manure Winter	R14 Small Grain Silage Liquid Manure Spring	R14 Small Grain Silage Liquid Manure Fall	R14 Small Grain Silage Liquid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	312	312	312	312	283	283	283
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	312	312	312	312	283	283	283
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	62	62	62	62	57	57	57
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>		-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	100	100	100	122	122	122
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	98	48	48	80	59	59	98
Source Factor Sum	160	110	110	142	116	116	155
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	64	44	44	57	53	53	71

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R14 Small Grain Silage Solid Manure Spring	R14 Small Grain Silage Solid Manure Fall	R14 Small Grain Silage Solid Manure Winter	R15 Small Grain Silage Liquid Manure Spring	R15 Small Grain Silage Liquid Manure Fall	R15 Small Grain Silage Liquid Manure Winter	R15 Small Grain Silage Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	283	283	283	283	283
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	283	283	283	283	283
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	57	57	57	57	57
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	98	48
Source Factor Sum	105	105	137	116	116	155	105
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	48	63	53	53	71	48

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R15 Small Grain Silage Solid Manure Fall	R15 Small Grain Silage Solid Manure Winter	R16 Small Grain Silage Liquid Manure Spring	R16 Small Grain Silage Liquid Manure Fall	R16 Small Grain Silage Liquid Manure Winter	R16 Small Grain Silage Solid Manure Spring	R16 Small Grain Silage Solid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	423	423	423	423	423
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	423	423	423	423	423
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	85	85	85	85	85
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	122	122	122	100	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	0.8	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	78	48	48
Source Factor Sum	105	137	144	144	163	133	133
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	63	66	66	75	61	61

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R16 Small Grain Silage Solid Manure Winter	R17 Small Grain Silage Liquid Manure Spring	R17 Small Grain Silage Liquid Manure Fall	R17 Small Grain Silage Liquid Manure Winter	R17 Small Grain Silage Solid Manure Spring	R17 Small Grain Silage Solid Manure Fall	R17 Small Grain Silage Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	423	256	256	256	256	256	256
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	423	256	256	256	256	256	256
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	85	51	51	51	51	51	51
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80
Source Factor Sum	165	110	110	149	99	99	131
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	76	51	51	69	46	46	60

Low: 59 or less

Nitrogen based management

# Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

								St Fer	arter/Oth tilizer (lk	ner b/A)	Su Fer	pplemer tilizer (II	ntal b/A)	Nutr	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O
R18 Small Grain Silage Liquid Manure Spring	R18	5	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	78	0	0	0	-66	-94
R18 Small Grain Silage Liquid Manure Fall	R18	5	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	78	0	0	0	-66	-94
R18 Small Grain Silage Liquid Manure Winter	R18	5	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000 gal/A	0	0	0	30	0	0	0	-66	-94
R18 Small Grain Silage Solid Manure Spring	R18	5	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	104	0	40	0	-44	0
R18 Small Grain Silage Solid Manure Fall	R18	5	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	104	0	40	0	-44	0
R18 Small Grain Silage Solid Manure Winter	R18	5	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10 tons/A	0	0	0	82	0	40	0	-44	0
R19 Small Grain Silage Liquid Manure Spring	R19	1.6	Small Grain Silage	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	78	0	0	0	-66	-94
R19 Small Grain Silage Liquid Manure Fall	R19	1.6	Small Grain Silage	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	78	0	0	0	-66	-94

									St Fer	arter/Oth tilizer (II	ner b/A)	Su Fer	oplemer tilizer (II	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	$P_2O_5$	K₂O
R19 Small Grain Silage Liquid Manure Winter	R19	1.6	Small Grain Silage	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	8000	gal/A	0	0	0	30	0	0	0	-66	-94
R19 Small Grain Silage Solid Manure Spring	R19	1.6	Small Grain Silage	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R19 Small Grain Silage Solid Manure Fall	R19	1.6	Small Grain Silage	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	104	0	40	0	-44	0
R19 Small Grain Silage Solid Manure Winter	R19	1.6	Small Grain Silage	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	82	0	40	0	-44	0

# **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R18 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R18 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Small Grain Silage Liquid Manure Spring	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R19 Small Grain Silage Liquid Manure Fall	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Small Grain Silage Liquid Manure Winter	Small Grain Silage	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Small Grain Silage Solid Manure Spring	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R19 Small Grain Silage Solid Manure Fall	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Small Grain Silage Solid Manure Winter	Small Grain Silage	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R18 Sma	all Grain Silaç ⁄Ianure Sprin	ge Liquid g	R18 Small Grain Silage Liquid Manure Fall			R18 Small Grain Silage Liquid Manure Winter			R18 Small Grain Silage Solid Manure Spring			R18 Small Grain Silage Solid Manure Fall			R18 Small Grain Silage Solid Manure Winter		
Fields	R18			R18			R18			R18			R18			R18		
Acres	5.0			5.0			5.0			5.0			5.0			5.0		
NBS Option	Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed		
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	166	166		166		166		166		166			166					
P Index Part A Evaluation	I						Winter						1			Winter		
Part A Result	N Based			N Based			Part B			N Based			N Based			Part B		
Сгор	Small Grain Silage			Small Grain Silage			Small Grain Silage			Small Grain Silage			Small Grain Silage			Small Grain Silage		
Planned Yield	8 ton/A			8 ton/A			8 ton/A			8 ton/A			8 ton/A			8 ton/A		
	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method								,										
Double Crop CarryOver N (lb/A)	0			0			0		0			0			0			
Manure History Description Residual Manure N (Ib/A)	11	Continuously - Winter Crop		11 Continuously - Winter Crop		11	11 Continuously - Winter Crop		11	Continuou C	sly - Winter rop	11	Continuously - Winter Crop		11	Continuously - Winter Crop		
Legume History Description Residual Legume N (lb/A)	0	No Previous Year Legume		0 No Previous Year Legume		0	0 No Previous Year Legume		0	No Prev Leg	ious Year ume	0	No Previ Leg	ous Year ume	0 No Previous Yea		ous Year ume	
Net Nutrients Required (Ib/A)	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle Manure		Liquid Cattle Manure			Liquid Cattle Manure		Solid Cattle	Solid Cattle Manure		Solid Cattle Manure			Solid Cattle Manure				
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spring or summer utilization- Incorporation after 7 days or none			Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none			Winter: Early Spring Utililization. Small grains and established grass or legume hay			Spring: Spring or summer utilization- Incorporation after 7 days or none			Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none			Winter: Early Spring Utililization. Small grains and established grass or legume hay		
Availability, Fastara	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method							Surface app. when frozen/snow covered									Surface app. when frozen/snow covered		
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A	21,044 gal/A			10,531 gal/A				59	tons/A	59 tons/A			29 tons/A		
P Removal Balance Manure Rate		3,684	gal/A	3,684 gal/A			3,684 gal/A			6 tons/A			6 tons/A			6 tons/A		
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Removal (lb/A) 56.0			Crop P Removal (lb/A) 56.0			Crop P Removal (lb/A) 56.0			Crop P Removal (lb/A) 56.0			Crop P Removal (lb/A) 56.0		
P Index Value							72									62		
Planned Manure Rate (ton or gal/A)	8,000 gal/A			8,000 gal/A			8,000 gal/A			10 tons/A			10 tons/A			10 tons/A		
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78	-66	-9/	78	-66	-94	30	-66	-94	104	-11	40	104	-11	40	82	-11	40
Supplemental Fertilizer (Ib/A)	78	0	0	78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method	.0	5	5	,0	5	5		v	v		5	-10	104	3	-10	52	5	-70
Final Nutriont Balance (Ib/A)	0	-66	-04	0	-66	-04	0	-66	-04	0	-44	0	0	-44	0	0	-44	0
Multiple Application	U	-00	-34	v	-00	-34	U	-00	-34	U	-44	U	U	-44	U	U	-44	U
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		
Nutrient Balance Sheets	R19 Sma	all Grain Sila Manure Sprin	ge Liquid g	R19 Sma	all Grain Silag Manure Fall	ge Liquid	R19 Sm	all Grain Sila Manure Winte	ge Liquid er	R19 Sm N	all Grain Sila /Ianure Sprin	ge Solid g	R19 Sm	all Grain Sila Manure Fall	age Solid	R19 Sm M	all Grain Sila Ianure Winte	ge Solid r
---	---	--	---------------------------------------	---	--	--	--	---	--	---	--	---------------------------------------	--	---	--	---	--	--------------------------------------
Crop Group Indentification		D10			D10			D10			D40			D10				
A prop		1.6			1.6			1.6			1.6			1.6			1.6	
Acres		1.0			1.0		-	1.0			1.0			1.0			1.0	
NBS Option	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	idex Must be	e Completed
P Banking	_	1						1		_				1		_		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P			ppm P		
For Option 2 enter maximum Soli Test For Option 3 enter soil test for Pl	293			293			293			293			293			293		
P Index Part A Evaluation		Soil Test F	2		Soil Test F	)	v	/inter Soil Te	st P		Soil Test F	)		Soil Test F	2	W	inter Soil Ter	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Sm	nall Grain Sila	age	Sm	nall Grain Sila	age	Sn	nall Grain Sil	age	Sm	all Grain Sila	age	Sn	nall Grain Sila	age	Sm	all Grain Sila	ige
Planned Yield		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A		8	ton/A
	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208	136	56	208
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method															•			
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuou: Cr	sly - Winter op	11	Continuou: Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	Crop       0     No Previous Year Legume       125     56       208		0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previo Legi	ous Year ume
Net Nutrients Required (Ib/A)	125	Legume           125         56         208		125	56	208	125	56	208	125	56	208	125	56	208	125	56	208
Manure Group	Liquid Cattle	Manure		Liguid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/top or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37 70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- iys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: E Small grair	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Ea Small grain	rly Spring Ut s and establi r legume hay	ililization. shed grass
As a link life . For store	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or i	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)	1	21.044	nal/A		21.044	nal/A		10.531	nal/A		59	tons/A		59	tons/A		29	tons/A
P Pomoval Balance Manure Pate		3 684	nal/A		3 684	nal/A		3 684	A/lan		6	tons/A		6	tons/A		6	tons/A
(ton or gal/A: If required by P Index)	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P R	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0	Crop P Re	moval (lb/A)	56.0
R Index Violue		5/10/21	30.0		54	50.0		72	50.0		10/71	30.0		//////////////////////////////////////	50.0	Ciop i Re	64	50.0
		9 000	mal/A		0.000	mal/A		9 000	mal/A		43	1000/8		43	10mo/A			tonalA
		0,000	yai/A		0,000	yai/A		0,000	yai/A		10	tons/A		10	IONS/A		10	lons/A
(lb/A)	47	122	302	47	122	302	95	122	302	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	78	-66	-94	78	-66	-94	30	-66	-94	104	-44	40	104	-44	40	82	-44	40
Supplemental Fertilizer (lb/A)	78	0	0	78	0	0	30	0	0	104	0	40	104	0	40	82	0	40
P Index Application Method																		
Final Nutrient Balance (lb/A)	0	-66	-94	0	-66	-94	0	-66	-94	0	-44	0	0	-44	0	0	-44	0
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	Inces for P20 Crop Remo T be used to rtilizer needs	D5 and K2O wal and o determine

## **Phosphorus Index**

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	x Version 2				1
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING T	OOL	CMU/Field ID	R18 Small Grain Silage Liquid Manure Winter
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	al Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant fa	arm management change as d	efined by Act 38?	If the answer is Yes to	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlic	h 3 P greater than 200 ppm P'	? (enter soil test value in ppm P)	any of these questions,	166
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dis	tance from this CMU to receiv	ing water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure appli	cation planned for this field ?	-		Yes
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B vo	luntarily? (Answers are No t	o all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)		•	Mehlich 3 Soil Test P (pp	m P)		166
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						33
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	122
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	1
P SOURCE COEFFICIENT <sup>3</sup>	Refe	er to: Test results for F	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8
Manure Rating = Manure Rate x Manure Application Metho	od x P Source Coeffi	cient				98
Source Factor Sum						131
PART B: TRANSPORT FACTORS			Soil Loss (top/ocro/ur	A		0.55
EROSION		I	Soli Loss (loi //acie/yi	)		0.55
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 <i>Drainage Class is</i> Well/Moderately Well	6 Drainage Class is Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	2
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contribu	uting Distance	· ·			7
MODIFIED CONNECTIVITY	50 ft. Rij APPLIES TO	0.85 parian Buffer 9 DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24						0.27
P Index Value = 2 x Source x Transport						72
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cr	op removal	Very High: 100 or greater No Phosphorus applied		

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

## **Phosphorus Index**

PART A: SCREENING TOOL CMU/Field ID	R18 Small Grain Silage Solid Manure Winter	R19 Small Grain Silage Liquid Manure Spring	R19 Small Grain Silage Liquid Manure Fall	R19 Small Grain Silage Liquid Manure Winter	R19 Small Grain Silage Solid Manure Spring	R19 Small Grain Silage Solid Manure Fall	R19 Small Grain Silage Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	166	293	293	293	293	293	293
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	166	293	293	293	293	293	293
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	33	59	59	59	59	59	59
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>		-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80
Source Factor Sum	113	118	118	157	107	107	139
PART B: TRANSPORT FACTORS EROSION	0.55	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	2	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	7	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.27	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	62	54	54	72	49	49	64

Low: 59 or less

Nitrogen based management

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no correspondi

## Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

									St Fe	arter/Oth rtilizer (II	ner b/A)	Su Fer	pplemer tilizer (II	ntal b/A)	Nuti	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	, K₂O	N	P <sub>2</sub> O <sub>5</sub>	, K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R1_2 Soybeans Liquid Manure Spring	R1_2	14.9	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R1_2 Soybeans Liquid Manure Fall	R1_2	14.9	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R1_2 Soybeans Liquid Manure Winter	R1_2	14.9	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R1_2 Soybeans Solid Manure Spring	R1_2	14.9	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R1_2 Soybeans Solid Manure Fall	R1_2	14.9	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R1_2 Soybeans Solid Manure Winter	R1_2	14.9	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R3 Soybeans Liquid Manure Spring	R3	4.3	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R3 Soybeans Liquid Manure Fall	R3	4.3	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232

									Si Fe	arter/Oth rtilizer (II	ner p/A)	Su Fer	oplemer tilizer (II	ntal b/A)	Nut	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R3 Soybeans Liquid Manure Winter	R3	4.3	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R3 Soybeans Solid Manure Spring	R3	4.3	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R3 Soybeans Solid Manure Fall	R3	4.3	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R3 Soybeans Solid Manure Winter	R3	4.3	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R4 Soybeans Liquid Manure Spring	R4	3.9	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R4 Soybeans Liquid Manure Fall	R4	3.9	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R4 Soybeans Liquid Manure Winter	R4	3.9	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R4 Soybeans Solid Manure Spring	R4	3.9	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R4 Soybeans Solid Manure Fall	R4	3.9	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R4 Soybeans Solid Manure Winter	R4	3.9	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98

									St Fer	arter/Oth tilizer (lk	er v/A)	Su Fer	pplemeı tilizer (ll	ntal b/A)	Nutr	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O
R5B Soybeans Liquid Manure Spring	R5B	4.1	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R5B Soybeans Liquid Manure Fall	R5B	4.1	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R5B Soybeans Liquid Manure Winter	R5B	4.1	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R5B Soybeans Solid Manure Spring	R5B	4.1	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R5B Soybeans Solid Manure Fall	R5B	4.1	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R5B Soybeans Solid Manure Winter	R5B	4.1	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R6 Soybeans Liquid Manure Spring	R6	5.1	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R6 Soybeans Liquid Manure Fall	R6	5.1	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R6 Soybeans Liquid Manure Winter	R6	5.1	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R6 Soybeans Solid Manure Spring	R6	5.1	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R6 Soybeans Solid Manure Fall	R6	5.1	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98

									Si Fe	arter/Oth rtilizer (II	ner b/A)	Su Fer	oplemer tilizer (II	ntal b/A)	Nut	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R6 Soybeans Solid Manure Winter	R6	5.1	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R7 Soybeans Liquid Manure Spring	R7	3.1	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R7 Soybeans Liquid Manure Fall	R7	3.1	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R7 Soybeans Liquid Manure Winter	R7	3.1	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R7 Soybeans Solid Manure Spring	R7	3.1	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R7 Soybeans Solid Manure Fall	R7	3.1	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R7 Soybeans Solid Manure Winter	R7	3.1	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R8 Soybeans Liquid Manure Spring	R8	9	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R8 Soybeans Liquid Manure Fall	R8	9	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R8 Soybeans Liquid Manure Winter	R8	9	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232

									St Fer	arter/Oth tilizer (lk	ner b/A)	Su Fer	pplemeı tilizer (II	ntal b/A)	Nutr	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	$P_2O_5$	K₂O	Ν	$P_2O_5$	K <sub>2</sub> O
R8 Soybeans Solid Manure Spring	R8	9	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R8 Soybeans Solid Manure Fall	R8	9	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R8 Soybeans Solid Manure Winter	R8	9	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R9 Soybeans Liquid Manure Spring	R9	2.1	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R9 Soybeans Liquid Manure Fall	R9	2.1	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R9 Soybeans Liquid Manure Winter	R9	2.1	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R9 Soybeans Solid Manure Spring	R9	2.1	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R9 Soybeans Solid Manure Fall	R9	2.1	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R9 Soybeans Solid Manure Winter	R9	2.1	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R10 Soybeans Liquid Manure Spring	R10	6.2	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R10 Soybeans Liquid Manure Fall	R10	6.2	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232

									Si Fe	arter/Oth rtilizer (II	ner b/A)	Su Fer	oplemer tilizer (II	ntal b/A)	Nut	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R10 Soybeans Liquid Manure Winter	R10	6.2	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R10 Soybeans Solid Manure Spring	R10	6.2	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R10 Soybeans Solid Manure Fall	R10	6.2	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R10 Soybeans Solid Manure Winter	R10	6.2	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R11 Soybeans Liquid Manure Spring	R11	2.2	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R11 Soybeans Liquid Manure Fall	R11	2.2	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R11 Soybeans Liquid Manure Winter	R11	2.2	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R11 Soybeans Solid Manure Spring	R11	2.2	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R11 Soybeans Solid Manure Fall	R11	2.2	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R11 Soybeans Solid Manure Winter	R11	2.2	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98

								Sta Fer	arter/Oth tilizer (Ik	ner b/A)	Su Fer	pplemeı tilizer (ll	ntal b/A)	Nutr	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R12 Soybeans Liquid Manure Spring	R12	3.3	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R12 Soybeans Liquid Manure Fall	R12	3.3	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R12 Soybeans Liquid Manure Winter	R12	3.3	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R12 Soybeans Solid Manure Spring	R12	3.3	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R12 Soybeans Solid Manure Fall	R12	3.3	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R12 Soybeans Solid Manure Winter	R12	3.3	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/A	0	0	0	0	0	0	0	-50	-98
R13 Soybeans Liquid Manure Spring	R13	6.3	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R13 Soybeans Liquid Manure Fall	R13	6.3	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R13 Soybeans Liquid Manure Winter	R13	6.3	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R13 Soybeans Solid Manure Spring	R13	6.3	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R13 Soybeans Solid Manure Fall	R13	6.3	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98

									Si Fe	arter/Oth rtilizer (II	ner b/A)	Suj Feri	oplemer tilizer (II	ntal b/A)	Nuti	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R13 Soybeans Solid Manure Winter	R13	6.3	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R14 Soybeans Liquid Manure Spring	R14	4	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R14 Soybeans Liquid Manure Fall	R14	4	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R14 Soybeans Liquid Manure Winter	R14	4	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R14 Soybeans Solid Manure Spring	R14	4	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R14 Soybeans Solid Manure Fall	R14	4	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R14 Soybeans Solid Manure Winter	R14	4	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98
R15 Soybeans Liquid Manure Spring	R15	3.6	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R15 Soybeans Liquid Manure Fall	R15	3.6	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R15 Soybeans Liquid Manure Winter	R15	3.6	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232

								St Fer	arter/Oth tilizer (lk	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nutr	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	Ν	$P_2O_5$	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	$P_2O_5$	K <sub>2</sub> O
R15 Soybeans Solid Manure Spring	R15	3.6	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R15 Soybeans Solid Manure Fall	R15	3.6	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R15 Soybeans Solid Manure Winter	R15	3.6	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/A	0	0	0	0	0	0	0	-50	-98
R16 Soybeans Liquid Manure Spring	R16	3.3	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R16 Soybeans Liquid Manure Fall	R16	3.3	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R16 Soybeans Liquid Manure Winter	R16	3.3	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R16 Soybeans Solid Manure Spring	R16	3.3	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R16 Soybeans Solid Manure Fall	R16	3.3	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R16 Soybeans Solid Manure Winter	R16	3.3	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/A	0	0	0	0	0	0	0	-50	-98
R17 Soybeans Liquid Manure Spring	R17	2.2	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R17 Soybeans Liquid Manure Fall	R17	2.2	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232

									St Fer	arter/Oth tilizer (It	ier b/A)	Sup Fert	oplemer tilizer (II	ntal p/A)	Nutr	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R17 Soybeans Liquid Manure Winter	R17	2.2	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R17 Soybeans Solid Manure Spring	R17	2.2	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R17 Soybeans Solid Manure Fall	R17	2.2	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R17 Soybeans Solid Manure Winter	R17	2.2	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98

## **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R1_2 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R1_2 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R3 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R3 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R5B Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R5B Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R7 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R7 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R8 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R8 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R10 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R10 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R12 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R12 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R14 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R14 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R15 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R15 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R16 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may not be applied to this field if it is snow or ice covered.
R16 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R17 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

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CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R17 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R1_2 So	ybeans Liquio Spring	d Manure	R1_2 Soyb	eans Liquid I	Manure Fall	R1_2 So	ybeans Liqu Winter	id Manure	R1_2 Soybe	eans Solid Ma	anure Spring	R1_2 Soy	beans Solid N	lanure Fall	R1_2 Soybe	ans Solid Ma	anure Winter
Crop Group Indentification		D4 0			D1 0			D4 0			D4 0			D1 0			D1 0	
		RI_2			RI_2			RI_2			RI_2			RI_2			KI_Z	
Acres		14.9			14.9			14.9			14.9			14.9			14.9	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking					r			r						1				
Mehlich 3 Soil Test P	ppm P	-		ppm P	-		ppm P	-		ppm P	-		ppm P	-		ppm P		
For Option 3 enter soil test for Pl	223			223			223			223			223			223		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	0	V	Vinter Soil Te	est P		Soil Test F	0		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyt	beans with M	anure	Soyt	eans with M	anure	Soyl	beans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	) bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			-						·					•			-	
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sum Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 35 Continuously - Sumr Crop 0 No Previous Year Legume			35	Continuous Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year gume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Year Legume			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	0 Legume			Liquid Cattle	Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utiliza r annuals-Co silage	tion. Single	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P R	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		40			40			56			36			36			49	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate																		
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0         -72         -232           0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Final Nutrient Balance (lb/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	U *12 -232																	
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used ertilizer needs	05 and K2O oval and to determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R3 Soybea	ns Liquid Mai	nure Spring	R3 Soybe	ans Liquid M	anure Fall	R3 Soybea	ns Liquid Ma	nure Winter	R3 Soybea	ins Solid Mar	nure Spring	R3 Soybe	eans Solid Ma	anure Fall	R3 Soybea	ns Solid Mar	nure Winter
Crop Group Indentification		D2			D2			<b>D</b> 2			D2			D2			D2	
Acros		43			4.3			/ 3			4.3			/ 3			43	
								4.0			4.0			4.0				
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
	nnm P			nnm P			nnm P			nnm P			nnm P			nnm P		
Mehlich 3 Soil Test P For Option 2 enter maximum Soil Test	рршт	-		ррше	-		рршт	-		ррпг			ppin P	_		ppinr		
For Option 3 enter soil test for PI	157			157			157			157			157			157		
P Index Part A Evaluation								Winter									Winter	
Part A Result		N Based			N Based			Part B			N Based			N Based			Part B	
Сгор	Soyt	eans with Ma	anure	Soyt	eans with Ma	anure	Soyt	eans with M	anure	Soyb	eans with Ma	anure	Soyt	beans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			-								•	•		·	•		-	•
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sumr Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 35 Continuously - Sumn Crop 0 No Previous Year Legume			35	Continuous Cr	y - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (Ib/A)	35     Continuously - Sumr Crop       0     No Previous Year Legume       125     50     70       Liquid Cattle Manure			0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	O         No Previous Year Legume           125         50         70			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	Ν	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization Ible crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in dou corporated after none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for
Availability Eastern	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method		Select Methor	d		Select Metho	d	Surface app.	when frozen/	snow covered	:	Select Metho	d		Select Metho	d	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value								50									43	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
(ID/A)	0	70	222	0	70	222	0	70	222	0	50	09	0	50	00	0	50	08
	0 -72 -232			0	-72	-232	0	-12	-232	0	-50	-90	0	-30	-90	0	-50	-90
P Index Application Method	0 0 0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Findex Application Method	0 -72 -232			0	70	222	0	70	222	0	50	00	0	50	00	0	50	00
Autine Application	0 -72 -232			U	-72	-232	U	-72	-232	U	-50	-98	U	-50	-98	U	-50	-96
Soil test or Crop Removal	0 0 0 0 -72 -23: Nutrient Balances for P2O5 and H are based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			Nutrient Bal are based o SHOULD N additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used to ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R4 Soybea	ns Liquid Mai	nure Spring	R4 Soybe	ans Liquid M	anure Fall	R4 Soybea	ns Liquid Ma	nure Winter	R4 Soybea	ns Solid Mar	nure Spring	R4 Soybo	eans Solid Ma	anure Fall	R4 Soybea	ns Solid Man	ure Winter
Fields		R4			R4			R4			R4			R4			R4	
Acres		3.9			3.9			3.9			3.9			3.9			3.9	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Moblish 2 Soil Test D	ppm P			ppm P			ppm P			nnm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test	pp			pp	-		pp	-		pp			ppini	_		pp		
For Option 3 enter soil test for Pl	335			335			335			335			335			335		
P Index Part A Evaluation		Soil Test P	)		Soil Test F	0	V	/inter Soil Te	st P		Soil Test F	)		Soil Test F	0	N	inter Soil Tes	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with Ma	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
Cran Demoval Decommon detions (LD(A))	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			-		•							-		·				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (lb/A)	0     0       35     Continuously - Sumi Crop       0     No Previous Yea Legume			35	Continuous Cr	ly - Summer op	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	35     Continuously - Sum Crop       0     No Previous Yea Legume       125     50     70       Liquid Cattle Manure			0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Legi	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yea Legume			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	U         Legume           125         50         70           Liquid Cattle Manure         1000000000000000000000000000000000000			Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/ton or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37 70	29.68	15 20	37 70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	nmer Utilizat annuals-Co silage	ion. Single ver crop for
As a line little and a second	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or in	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21.044	gal/A		21.044	gal/A		21.044	gal/A		. 59	tons/A		. 59	tons/A		59	tons/A
P Romoval Balanco Manuro Pato		3 289	nal/A		3 289	nal/A		3 289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A: If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P R	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
Pindex Value		/10/21 (15/74)	30.0		//////////////////////////////////////	30.0		6/	50.0		/5	50.0		/5	30.0		57	50.0
Planned Manura Pate (top or gal/A)		8 000	aal/A		8 000	aal/A		8 000	aal/A			tons/A		10	tone/A		10	tons/A
Nutriante Applied at Depped Manute Date		0,000	yai/A		0,000	yai/A		0,000	yai/A		10	tons/A		10	IONS/A		10	tons/A
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0         -72         -23z           0         0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method									_									
Final Nutrient Balance (lb/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	U -12 -232																	
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 a Crop Remo DT be used to tilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R5B Soybea	ans Liquid Ma	anure Spring	R5B Soybe	eans Liquid N	/anure Fall	R5B Soybea	ans Liquid Ma	anure Winter	R5B Soybe	ans Solid Ma	nure Spring	R5B Soyb	eans Solid M	lanure Fall	R5B Soybe	ans Solid Ma	nure Winter
Crop Group Indentification																		
Fields		R5B			R5B			R5B			R5B			R5B			R5B	
Acres		4.1			4.1			4.1			4.1			4.1			4.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1									1				
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P	-		ppm P			ppm P		
For Option 3 enter soil test for Pl	329			329			329			329			329			329		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	>	W	/inter Soil Te	st P		Soil Test F	2		Soil Test F	>	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P205	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sum Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer op	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ous Year ume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	No Previous Year           0         Legume           125         50         70			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Legume           125         50         70           Liquid Cattle Manure         1000000000000000000000000000000000000			Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single ver crop for	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		49		· ·	49			64			44			44		·	57	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>J</b>		-,	<b>J</b>		-,	<b>J</b>		-			-			-	
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (lb/A)	0 0 0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					1	1		r	1		1	1			1			r
Final Nutrient Balance (Ib/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	-12 -232																	
Soil test or Crop Removal	0         -72         -23           Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R6 Soybea	ns Liquid Mai	nure Spring	R6 Soybe	ans Liquid M	anure Fall	R6 Soybea	ns Liquid Ma	nure Winter	R6 Soybea	ns Solid Mar	nure Spring	R6 Soybe	eans Solid Ma	anure Fall	R6 Soybea	ns Solid Mar	ure Winter
Fields		R6			R6			R6			R6			R6			R6	
Acres		5.1			5.1			5.1			5.1			5.1			5.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	370			370			370			370			370			370		
P Index Part A Evaluation		Soil Test P	)		Soil Test F	>	V	/inter Soil Te	st P		Soil Test F	>		Soil Test F	>	W	inter Soil Te	st P
Part A Result	-	Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyt	eans with M	anure	Soyb	eans with M	anure	Soyt	beans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		رر												,				
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sum Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 35 Continuously - Sum Crop No Previous Yea Legume			35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Ci	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Legi	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yea Legume			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat annuals-Co silage	ion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		52			52			67			48			48			60	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0 -72 -232			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method	0 0 0			- °	0	0			ů		Ŭ	ů	ů	ů		ů.	0	•
Final Nutrient Balance (Ib/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
	0 -72 -232			Ū	-12	ZJZ		-12	ZJZ	v	-30	-30	v	-50	-30	Ū	-50	-30
Soil test or Crop Removal	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R7 Soybea	ins Liquid Ma	nure Spring	R7 Soybe	ans Liquid M	anure Fall	R7 Soybea	ns Liquid Ma	inure Winter	R7 Soybea	ins Solid Mai	nure Spring	R7 Soyb	eans Solid Ma	anure Fall	R7 Soybea	ns Solid Mar	nure Winter
Crop Group Indentification		D7			D7			D7			D7			D7			D7	
Acros		3.1			3.1			3.1			3.1			3.1			3.1	
		0.1			0.1			0.1			0.1						0.1	
NBS Option	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1			1										
Mehlich 3 Soil Test P	ppine	-		ррше			ррше			ррше			ррше			ррше		
For Option 3 enter soil test for PI	355			355			355			355			355			355		
P Index Part A Evaluation		Soil Test F	<b>D</b>		Soil Test F	)	v	/inter Soil Te	est P		Soil Test F	<b>D</b>		Soil Test F	<b>b</b>	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Soyb	peans with Ma	anure	Soyb	eans with Ma	anure	Soyt	eans with M	anure	Soyb	eans with M	anure	Soyl	beans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	) bu/A		50	bu/A		50	bu/A		50	bu/A
Cran Demoval Decommon detions (LD/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					,									•				
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sumr Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 35 Continuously - Sumn Crop No Previous Year Legume			35	Continuous Cr	ly - Summer op	35	Continuous C	sly - Summer rop	35	Continuous Ci	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	35     Continuously - Sumr Crop       0     No Previous Year Legume       125     50     70       Liquid Cattle Manure			0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0No Previous Year Legume1255070			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	0 Legume			Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ing or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	l: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		21,044	aal/A		. 59	tons/A		. 59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P R	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0
P Index Value		51			51			66			46			46			59	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	94.77		-,	9		-,	9					1				
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (lb/A)	0         -72         -232           0         0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					1			1	T		r	r		1	r			r
Final Nutrient Balance (Ib/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	U -12 -202																	
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 In Crop Remo OT be used to ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R8 Soybea	ns Liquid Mai	nure Spring	R8 Soybe	ans Liquid M	lanure Fall	R8 Soybea	ns Liquid Ma	nure Winter	R8 Soybea	ans Solid Mar	nure Spring	R8 Soybe	eans Solid Ma	anure Fall	R8 Soybea	ns Solid Man	ure Winter
Fields		R8			R8			R8			R8			R8			R8	
Acres		9.0			9.0			9.0			9.0			9.0			9.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test																		
For Option 3 enter soil test for PI	208			208			208			208			208			208		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	>	W	/inter Soil Te	st P		Soil Test F	2		Soil Test F	<b>)</b>	W	inter Soil Tes	st P
Part A Result	-	Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		رر																
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0     0       35     Continuously - Summer Crop       0     No Previous Yea       Legume			35	Continuous Cr	ly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	35     Continuously - Sum Crop       0     No Previous Yea Legume       125     50     70       Liquid Cattle Manure			0	No Previ Leg	ious Year jume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Legi	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yeal Legume 125 50 70			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	nmer Utilizat annuals-Co silage	ion. Single ver crop for
Augilability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	corp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		39			39			54			35			35			47	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate						Ū			Ū									
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	072 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0         -72         -232           0         0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method						•			•									
Final Nutrient Balance (lb/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	U -12 -232																	
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 a Crop Remo DT be used to tilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R9 Soybea	ns Liquid Mai	nure Spring	R9 Soybe	ans Liquid M	lanure Fall	R9 Soybea	ns Liquid Ma	nure Winter	R9 Soybea	ns Solid Mar	nure Spring	R9 Soyb	eans Solid Ma	anure Fall	R9 Soybea	ns Solid Mar	ure Winter
Fields		R9			R9			R9			R9			R9			R9	
Acres		2.1			2.1			2.1			2.1			2.1			2.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	269			269			269	_		269			269			269		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	2	V	l Vinter Soil Te	st P		Soil Test F	2		Soil Test F	>	W	inter Soil Te	st P
Part A Result	-	Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Sovb	eans with Ma	anure	Sovt	eans with Ma	anure	Sovt	eans with M	anure	Sovb	eans with M	anure	Sovt	beans with Ma	anure	Sovb	eans with Ma	anure
Planned Yield	, -	50	bu/A	, .	50	bu/A		50	bu/A		50	bu/A	,	50	bu/A	,-	50	bu/A
	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method														,				
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sum Crop			0			0			0			0			0		
Manure History Description Residual Manure N (lb/A)	0 35 Continuously - Sum Crop No Previous Yea Legume			35	Continuous Cr	ly - Summer rop	35	Continuous C	ily - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yea Legume			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	0 Legume			Liquid Cattle	Manure		Liquid Cattle	e Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization-	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		. 59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		44			44			59			40			40			52	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>J</b>		-,	<b>3</b>		-,	<b>3</b>					-			-	
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0         -72         -232           0         0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Final Nutrient Balance (lb/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	0 -12 -232																	
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t ertilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R10 Soybea	ans Liquid Ma	nure Spring	R10 Soybe	eans Liquid N	lanure Fall	R10 Soybea	ins Liquid Ma	anure Winter	R10 Soybea	ans Solid Ma	nure Spring	R10 Soyb	eans Solid M	lanure Fall	R10 Soybea	ans Solid Ma	nure Winter
Crop Group Indentification		D40			D40			D40			D40			D40			D40	
Fields		R10			R10			R10			R10			R10			R10	
Acres		0.2			0.2			0.2			0.2			0.2			0.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
	nnm D			nnm D	1		nnm D	1		nnm D			nnm D			nnm D		
Mehlich 3 Soil Test P	ррше			ррше			ррше			ррше			ppine			ррше		
For Option 3 enter soil test for Pl	326			326			326			326			326			326		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	0	W	/inter Soil Te	st P		Soil Test F	0		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sum Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuousl Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (Ib/A)	0	No Previ	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	No Previous Year           0         Legume           125         50         70			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Legume           125         50         70           Liquid Cattle Manure         1000000000000000000000000000000000000			Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	1
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P205	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21.044	gal/A		21.044	gal/A		21.044	gal/A		. 59	tons/A		. 59	tons/A		59	tons/A
P Removal Balance Manure Rate		3.289	gal/A		3,289	gal/A		3.289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0
P Index Value		50			50			65			45			45			58	
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>J</b>		-,	<b>J</b>		-,	<b>J</b>		-						-	
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0         -72         -232           0         0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					1			i				·			·			n
Final Nutrient Balance (Ib/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	-12 -232																	
Soil test or Crop Removal	0     -72     -23       Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to detern additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R11 Soybea	ans Liquid Ma	nure Spring	R11 Soybe	eans Liquid N	lanure Fall	R11 Soybea	ins Liquid Ma	anure Winter	R11 Soybea	ans Solid Ma	nure Spring	R11 Soyb	eans Solid M	lanure Fall	R11 Soybea	ans Solid Ma	nure Winter
Crop Group Indentification		D44			D44			D44			D44			D44			D44	
Fields		R11			R11			R11			R11			R11			R11	
Acres		2.2			2.2			2.2			2.2			2.2			2.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking					1													
Mehlich 3 Soil Test P	ррше			ррше			ррше			ррше			ppine			ррше		
For Option 3 enter soil test for Pl	268			268			268			268			268			268		
P Index Part A Evaluation		Soil Test F	0		Soil Test F	0	W	/inter Soil Te	st P		Soil Test F	2		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
Cran Demoval Decommon detions (LD(A))	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method								•						·				
Double Crop CarryOver N (lb/A)	0 35 Continuously - Sum Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuousl Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	No Previous Year           0         Legume           125         50         70			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Liquid Cattle	Legume           125         50         70           Liquid Cattle Manure         100         100			e Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		45			45		·	61			41			41		·	53	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate									Ū									
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0         -72         -232           0         0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Final Nutrient Balance (Ib/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	0 -72 -232																	
Soil test or Crop Removal	0     -72     -23       Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to detern additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R12 Soybea	ans Liquid Ma	anure Spring	R12 Soybe	eans Liquid N	lanure Fall	R12 Soybea	ans Liquid Ma	anure Winter	R12 Soybea	ans Solid Ma	nure Spring	R12 Soyb	eans Solid M	lanure Fall	R12 Soybea	ans Solid Ma	nure Winter
Crop Group Indentification		D40			D40			<b>D</b> 40			D40			Dia			D40	
Fields		R12			R12			R12			R12			R12			R12	
Acres		3.3			3.3			3.3			3.3			3.3			3.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking					1									1		-		
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P	-		ppm P	-		ppm P	_		ppm P		
For Option 3 enter soil test for Pl	270			270			270			270			270			270		
P Index Part A Evaluation		Soil Test P	)		Soil Test F	>	W	/inter Soil Te	st P		Soil Test F	2		Soil Test F	>	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			-											·				
Double Crop CarryOver N (lb/A)	0	0 35 Continuously - Sum Crop					0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuousl Cr	ly - Summer op	35	Continuous Ci	ly - Summer op	35	Continuous C	ly - Summer op	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuousl Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ous Year ume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	No Previous Year           0         Legume           125         50         70			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Legume     125   50     Tuguid Cattle Manure			Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15 20	37.70	29.68	15 20	37.70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single ver crop for	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		. 59	tons/A		59	tons/A
P Removal Balance Manure Rate		3.289	gal/A		3,289	gal/A		3.289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		45			45			61			41			41			53	
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>J</b>		-,	<b>J</b>		-,	<b>J</b>		-							
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (lb/A)	0 0 0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					1	1		r	1		1	1			1			1
Final Nutrient Balance (Ib/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	-12 -232																	
Soil test or Crop Removal	0 -72 -23 Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to detern additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R13 Soybea	ans Liquid Ma	anure Spring	R13 Soybe	eans Liquid N	lanure Fall	R13 Soybea	ans Liquid Ma	anure Winter	R13 Soybea	ans Solid Ma	nure Spring	R13 Soyb	eans Solid M	lanure Fall	R13 Soybea	ans Solid Ma	nure Winter
Crop Group Indentification		D40			D40			<b>D</b> 40			D40			D40			<b>D</b> 40	
Fields		R13			R13			R13			R13			R13			R13	
Acres		0.3			0.3			0.3			0.3			0.3			0.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking					r									1				
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P	-		ppm P	-		ppm P			ppm P		
For Option 3 enter soil test for PI	312			312			312			312			312			312		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	2	W	/inter Soil Te	st P		Soil Test F	2		Soil Test F	2	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор	Soyb	eans with Ma	anure	Soyb	peans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
Cran Demoval Decommondations (LD/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuousl Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	No Previous Year           0         Legume           125         50         70			125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Legume           125         50         70           Liquid Cattle Manure         100         100			Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		48			48			64			44			44			57	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		,						,										
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0         -72         -232           0         0         0         0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Final Nutrient Balance (Ib/A)	0 -72 -232			0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application	0 -72 -232			· · · · · · · · · · · · · · · · · · ·				-				-		-				
Soil test or Crop Removal	0     0     0       0     -72     -23       Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to deterr additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R14 Soybeans Liquid Manure Spring			R14 Soybeans Liquid Manure Fall			R14 Soybeans Liquid Manure Winter			R14 Soybeans Solid Manure Spring			R14 Soybeans Solid Manure Fall			R14 Soybeans Solid Manure Winter			
Crop Group Indentification	D14			P14			D14						<b></b>						
Fields	K14 4.0			R14			R14						R14			<u> </u>			
Acres	4.0			4.0			4.0				4.0			4.0			4.0		
NBS Option	Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			Option 3 P Index Must be Completed			
	nom P		nom B			nom P			nom D			nom D							
Mehlich 3 Soil Test P	ppm r		ррше			ррше	ppme		ppm P		ppm P			ррше					
For Option 3 enter soil test for Pl	283	283		283			283			283			283			283			
P Index Part A Evaluation	Soil Test P			Soil Test P			Winter Soil Test P			Soil Test P			Soil Test P			Winter Soil Test P			
Part A Result	Part B			Part B			Part B			Part B			Part B			Part B			
Сгор	Soybeans with Manure			Soybeans with Manure			Soybeans with Manure			Soybeans with Manure			Soybeans with Manure			Soybeans with Manure			
Planned Yield	50 bu/A			50 bu/A			50 bu/A			50 bu/A			50 bu/A			50 bu/A			
Crop Removal Recommendations (LB/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	
	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method														·					
Double Crop CarryOver N (lb/A)	0			0			0	0		0			0			0			
Manure History Description Residual Manure N (Ib/A)	35	Continuously - Summer Crop		35 Continuously - Summer Crop		35	Continuously - Summer Crop		35	Continuous Ci	ly - Summer rop	35	Continuously - Summer Crop		35	Continuously - Summer Crop			
Legume History Description Residual Legume N (Ib/A)	0	No Previous Year Legume		0 No Previous Year Legume		0	0 No Previous Year Legume		0	No Previous Year Legume		0	No Previous Year Legume		0	No Previous Year Legume			
Net Nutrients Required (Ib/A)	125	50 70		125 50 70		70	125	125 50 70		125	50 70		125	50	70	125	50	70	
Manure Group	Liquid Cattle Manure			Liquid Cattle Manure			Liquid Cattle Manure		Solid Cattle	olid Cattle Manure		Solid Cattle Manure			Solid Cattle Manure				
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton			
Manure Nutrient Content	N P2O5 K20		N P205 K20			N P2O5 <b>K20</b>		N	P2O5 K20		N P2O5 K20		N P2O5 K20		K20				
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spring or summer utilization- Incorporation after 7 days or none			Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none			Winter: Summer Utilization. Single crop corn or annuals-Cover crop for silage			Spring: Spring or summer utilization- Incorporation after 7 days or none			Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none			Winter: Summer Utilization. Single crop corn or annuals-Cover crop for silage			
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20			
P Index Application Method	April - Oct: No incorp or incorp > 1 wk.			April - Oct: No incorp or incorp > 1 wk.			Surface app. when frozen/snow covered			April - Oct: No incorp or incorp > 1 wk.			April - Oct: No incorp or incorp > 1 wk.			Surface app. when frozen/snow covered			
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A	21,044 gal/A			21,044 gal/A			59 tons/A			59 tons/A			59 tons/A			
P Removal Balance Manure Rate		3,289	gal/A	3,289 gal/A			3,289 gal/A			5 tons/A			5 tons/A			5 tons/A			
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Removal (lb/A) 50.0			Crop P Removal (lb/A) 50.0			Crop P Removal (lb/A) 50.0			Crop P Removal (lb/A) 50.0			Crop P Removal (lb/A) 50.0			
P Index Value	53			53			71			48			48			63			
Planned Manure Rate (ton or gal/A)	8,000 gal/A			8,000 gal/A			8.000 gal/A			10 tons/A			10 tons/A			10 tons/A			
Nutrients Applied at Planned Manure Rate		,	J					,											
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168	
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98	
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method																			
Final Nutrient Balance (Ib/A)	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98	
Multiple Application																			
Soil test or Crop Removal	Nutrient Balances for P205 and K20 are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			
Nutrient Balance Sheets	R15 Soybea	ans Liquid Ma	nure Spring	R15 Soybe	eans Liquid N	lanure Fall	R15 Soybea	ins Liquid Ma	anure Winter	R15 Soybea	ans Solid Ma	nure Spring	R15 Soyb	eans Solid M	lanure Fall	R15 Soybea	ans Solid Mar	nure Winter	
--	---	---	--------------------------------------	--	---	--	--	---	---------------------------------------	---	---	---------------------------------------	--	--	--	---	--	--------------------------------------	
Crop Group Indentification		DIC			DAG			Dic			DAG			DAG					
Fields		R15			R15			R15			R15			R15			R15		
Acres		3.0			3.0			3.0			3.0			3.0			3.0		
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed	
P Banking					r									1					
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P	-		ppm P	-		ppm P	_		ppm P	l I		
For Option 3 enter soil test for PI	283			283			283			283			283			283			
P Index Part A Evaluation		Soil Test F	•		Soil Test F	2	W	/inter Soil Te	st P		Soil Test F	2		Soil Test F	2	W	inter Soil Ter	st P	
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B		
Сгор	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure	
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A	
Cran Demoval Decommondations (LD/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method																			
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	35	Continuousl Cr	y - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer rop	35	Continuousl Cr	y - Summer op	
Legume History Description Residual Legume N (lb/A)	0	No Previ	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ous Year ume	
Net Nutrients Required (Ib/A)	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70	
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal		lb/ton			lb/ton			lb/ton				
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	nmer Utilizat rannuals-Co silage	ion. Single ver crop for	
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20			
P Index Application Method	April - Oct: N	No incorp or ir	corp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered	
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		59	tons/A		59	tons/A	
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A	
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	
P Index Value		53			53			71			48			48		·	63		
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate		-,	<b>3</b>		-,	<b>J</b>		-,	<b>J</b>		-								
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168	
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98	
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method			-		1			i				·							
Final Nutrient Balance (Ib/A)	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98	
Multiple Application																			
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20	D5 and K2O wal and o determine	

Nutrient Balance Sheets	R16 Soybea	ans Liquid Ma	anure Spring	R16 Soybe	eans Liquid N	lanure Fall	R16 Soybea	ans Liquid Ma	anure Winter	R16 Soybe	ans Solid Ma	nure Spring	R16 Soyb	beans Solid N	anure Fall	R16 Soybea	ans Solid Ma	nure Winter
Fields		R16			R16			R16			R16			R16			R16	
Acres		33			33			33			33			33			33	
		0.0			0.0			0.0			0.0			0.0				
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
	nnm D			nnm D			nnm D			nnm D			nnm D			nnm D		
Menlich 3 Soil Test P	ррпг			рршг	-		рршт	-		ррпг			рршг	-		рршт	1	
For Option 3 enter soil test for Pl	423			423			423			423			423			423		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	•	V	/inter Soil Te	st P		Soil Test F	0		Soil Test F	0	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Soyt	eans with Ma	anure	Soyb	peans with Ma	anure	Soyt	eans with M	anure	Soyt	eans with Ma	anure	Soyl	beans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op	35	Continuous C	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Ci	ly - Summer op	35	Continuousl Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			Ib/1000 gal		lb/ton			lb/ton			lb/ton			
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P205	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in dou orporated afte none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single over crop for	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	corp > 1 wk.	Nov - Mar: N	No incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		66			66			75			61			61			76	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	dal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	gant		-,	90071		-,	94.77					1				
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (lb/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method														-				
Final Nutrient Balance (Ib/A)	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P2 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R17 Soybea	ans Liquid Ma	nure Spring	R17 Soybe	eans Liquid N	lanure Fall	R17 Soybea	ins Liquid Ma	anure Winter	R17 Soybea	ans Solid Ma	nure Spring	R17 Soyb	eans Solid M	lanure Fall	R17 Soybea	ans Solid Ma	nure Winter
Crop Group Indentification		D47			D47			D47			D47			D47			D47	
Fields		R17			R17			R17			R17			R17			R17	
Acres		2.2			2.2			2.2			2.2			2.2			2.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking					r									1				
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P	-		ppm P	-		ppm P	_		ppm P		
For Option 3 enter soil test for PI	256			256			256			256			256			256		
P Index Part A Evaluation		Soil Test F	•		Soil Test F	0	W	/inter Soil Te	st P		Soil Test F	0		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop	Soyb	eans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuousl Cr	y - Summer op	35	Continuous Ci	ly - Summer op	35	Continuous Ci	ly - Summer op	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal		lb/ton			lb/ton			lb/ton			
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15 20	37.70	29.68	15 20	37.70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utiliza r annuals-Co silage	tion. Single ver crop for	Spring: Spri Incorporati	ing or summe ion after 7 da	er utilization- lys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat annuals-Co silage	ion. Single ver crop for
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method	April - Oct: N	No incorp or ir	corp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		. 59	tons/A		59	tons/A
P Removal Balance Manure Rate		3.289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value		51			51			69			46			46			60	
Planned Manure Rate (ton or gal/A)		8.000	dal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>3</b>		-,	<b>J</b>		-,	<b>J</b>		-							
(Ib/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			-		1			i	-			·			·			
Final Nutrient Balance (Ib/A)	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	ex Version 2				
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	rool	CMU/Field ID	R1_2 Soybeans Liquid Manure Spring
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	I Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant fa	rm management change as c	lefined by Act 38?	If the answer is Yes to	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	a 3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	223
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	ance from this CMU to receiv	ring water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?			No
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B vol	untarily? (Answers are Not	to all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)		•	Mehlich 3 Soil Test P (pp	om P)		223
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						45
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	ethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	122
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.6
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeffi	cient				59
Source Factor Sum						104
PART B: TRANSPORT FACTORS				-1		0.00
EROSION			Soli Loss (ton/acre/y	r)		0.68
RUNOFF POTENTIAL	0 <i>Drainage Class is</i> Excessively	2 <i>Drainage Class is</i> Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance				5
MODIFIED CONNECTIVITY	50 ft. Ri APPLIES TC	0.85 parian Buffer 0 DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24				1		0.20
P Index Value = 2 x Source x Transport						40
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	op removal	Very High: 100 or greater No Phosphorus applied		

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

PART A: SCREENING TOOL CMU/Field ID	R1_2 Soybeans Liquid Manure Fall	R1_2 Soybeans Liquid Manure Winter	R1_2 Soybeans Solid Manure Spring	R1_2 Soybeans Solid Manure Fall	R1_2 Soybeans Solid Manure Winter	R3 Soybeans Liquid Manure Winter	R3 Soybeans Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	223	223	223	223	223	157	157
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	Yes	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	223	223	223	223	223	157	157
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	45	45	45	45	45	31	31
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	1	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	98	80
Source Factor Sum	104	143	93	93	125	129	111
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	40	56	36	36	49	50	43

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R4 Soybeans Liquid Manure Spring	R4 Soybeans Liquid Manure Fall	R4 Soybeans Liquid Manure Winter	R4 Soybeans Solid Manure Spring	R4 Soybeans Solid Manure Fall	R4 Soybeans Solid Manure Winter	R5B Soybeans Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	335	335	335	335	335	335	329
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	335	335	335	335	335	335	329
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	67	67	67	67	67	67	66
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	122	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	98	48	48	80	59
Source Factor Sum	126	126	165	115	115	147	125
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	49	64	45	45	57	49

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R5B Soybeans Liquid Manure Fall	R5B Soybeans Liquid Manure Winter	R5B Soybeans Solid Manure Spring	R5B Soybeans Solid Manure Fall	R5B Soybeans Solid Manure Winter	R6 Soybeans Liquid Manure Spring	R6 Soybeans Liquid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	329	329	329	329	329	370	370
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	329	329	329	329	329	370	370
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	66	66	66	66	66	74	74
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	59	59
Source Factor Sum	125	164	114	114	146	133	133
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	64	44	44	57	52	52

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R6 Soybeans Liquid Manure Winter	R6 Soybeans Solid Manure Spring	R6 Soybeans Solid Manure Fall	R6 Soybeans Solid Manure Winter	R7 Soybeans Liquid Manure Spring	R7 Soybeans Liquid Manure Fall	R7 Soybeans Liquid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	370	370	370	370	355	355	355
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	370	370	370	370	355	355	355
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	74	74	74	74	71	71	71
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-		-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	100	100	100	122	122	122
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	98	48	48	80	59	59	98
Source Factor Sum	172	122	122	154	130	130	169
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	67	48	48	60	51	51	66

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R7 Soybeans Solid Manure Spring	R7 Soybeans Solid Manure Fall	R7 Soybeans Solid Manure Winter	R8 Soybeans Liquid Manure Spring	R8 Soybeans Liquid Manure Fall	R8 Soybeans Liquid Manure Winter	R8 Soybeans Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	355	355	355	208	208	208	208
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	355	355	355	208	208	208	208
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	71	71	71	42	42	42	42
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	<b>e</b> 0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	98	48
Source Factor Sum	119	119	151	101	101	140	90
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	46	46	59	39	39	54	35

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R8 Soybeans Solid Manure Fall	R8 Soybeans Solid Manure Winter	R9 Soybeans Liquid Manure Spring	R9 Soybeans Liquid Manure Fall	R9 Soybeans Liquid Manure Winter	R9 Soybeans Solid Manure Spring	R9 Soybeans Solid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	208	208	269	269	269	269	269
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	208	208	269	269	269	269	269
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	42	42	54	54	54	54	54
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	<b>e</b> 0	0	0	0	0	0	0
MANURE P RATE	100	100	122	122	122	100	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	98	48	48
Source Factor Sum	90	122	113	113	152	102	102
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	35	47	44	44	59	40	40

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R9 Soybeans Solid Manure Winter	R10 Soybeans Liquid Manure Spring	R10 Soybeans Liquid Manure Fall	R10 Soybeans Liquid Manure Winter	R10 Soybeans Solid Manure Spring	R10 Soybeans Solid Manure Fall	R10 Soybeans Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	269	326	326	326	326	326	326
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	269	326	326	326	326	326	326
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	65	65	65	65	65	65
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	le 0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Method	<b>o</b> 80	59	59	98	48	48	80
Source Factor Sum	134	124	124	163	113	113	145
PART B: TRANSPORT FACTORS EROSION	0.68	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	52	50	50	65	45	45	58

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R11 Soybeans Liquid Manure Spring	R11 Soybeans Liquid Manure Fall	R11 Soybeans Liquid Manure Winter	R11 Soybeans Solid Manure Spring	R11 Soybeans Solid Manure Fall	R11 Soybeans Solid Manure Winter	R12 Soybeans Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	268	268	268	268	268	268	270
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	268	268	268	268	268	268	270
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	54	54
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	122	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	98	48	48	80	59
Source Factor Sum	113	113	152	102	102	134	113
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	45	61	41	41	53	45

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R12 Soybeans Liquid Manure Fall	R12 Soybeans Liquid Manure Winter	R12 Soybeans Solid Manure Spring	R12 Soybeans Solid Manure Fall	R12 Soybeans Solid Manure Winter	R13 Soybeans Liquid Manure Spring	R13 Soybeans Liquid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	270	270	270	270	270	312	312
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	270	270	270	270	270	312	312
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	62	62
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	98	48	48	80	59	59
Source Factor Sum	113	152	102	102	134	121	121
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	61	41	41	53	48	48

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R13 Soybeans Liquid Manure Winter	R13 Soybeans Solid Manure Spring	R13 Soybeans Solid Manure Fall	R13 Soybeans Solid Manure Winter	R14 Soybeans Liquid Manure Spring	R14 Soybeans Liquid Manure Fall	R14 Soybeans Liquid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	312	312	312	312	283	283	283
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	312	312	312	312	283	283	283
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	62	62	62	62	57	57	57
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	100	100	100	122	122	122
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	98	48	48	80	59	59	98
Source Factor Sum	160	110	110	142	116	116	155
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	64	44	44	57	53	53	71

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R14 Soybeans Solid Manure Spring	R14 Soybeans Solid Manure Fall	R14 Soybeans Solid Manure Winter	R15 Soybeans Liquid Manure Spring	R15 Soybeans Liquid Manure Fall	R15 Soybeans Liquid Manure Winter	R15 Soybeans Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	283	283	283	283	283
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	283	283	283	283	283
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	57	57	57	57	57
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	122	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	98	48
Source Factor Sum	105	105	137	116	116	155	105
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	48	63	53	53	71	48

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R15 Soybeans Solid Manure Fall	R15 Soybeans Solid Manure Winter	R16 Soybeans Liquid Manure Spring	R16 Soybeans Liquid Manure Fall	R16 Soybeans Liquid Manure Winter	R16 Soybeans Solid Manure Spring	R16 Soybeans Solid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	423	423	423	423	423
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	423	423	423	423	423
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	85	85	85	85	85
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	122	122	122	100	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	0.8	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	78	48	48
Source Factor Sum	105	137	144	144	163	133	133
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	63	66	66	75	61	61

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R16 Soybeans Solid Manure Winter	R17 Soybeans Liquid Manure Spring	R17 Soybeans Liquid Manure Fall	R17 Soybeans Liquid Manure Winter	R17 Soybeans Solid Manure Spring	R17 Soybeans Solid Manure Fall	R17 Soybeans Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	423	256	256	256	256	256	256
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	423	256	256	256	256	256	256
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	85	51	51	51	51	51	51
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80
Source Factor Sum	165	110	110	149	99	99	131
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	76	51	51	69	46	46	60

Low: 59 or less

Nitrogen based management

# Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

							<u>-</u>		arter/Oth tilizer (lk	ner b/A)	Suj Fert	pplemer tilizer (II	ntal b/A)	Nutrient Balance (Ib/A) <sup>2</sup>		
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O
R18 Soybeans Liquid Manure Spring	R18	5	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R18 Soybeans Liquid Manure Fall	R18	5	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R18 Soybeans Liquid Manure Winter	R18	5	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R18 Soybeans Solid Manure Spring	R18	5	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R18 Soybeans Solid Manure Fall	R18	5	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10 tons/A	0	0	0	0	0	0	0	-50	-98
R18 Soybeans Solid Manure Winter	R18	5	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10 tons/A	0	0	0	0	0	0	0	-50	-98
R19 Soybeans Liquid Manure Spring	R19	1.6	Soybeans with Manure	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232
R19 Soybeans Liquid Manure Fall	R19	1.6	Soybeans with Manure	Liquid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000 gal/A	0	0	0	0	0	0	0	-72	-232

								Planned Manure Rate <sup>1</sup>		arter/Oth tilizer (It	ner b/A)	Su Fer	pplemeı tilizer (ll	ntal b/A)	Nut	(lb/A) <sup>2</sup>	
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate			P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R19 Soybeans Liquid Manure Winter	R19	1.6	Soybeans with Manure	Liquid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	8000	gal/A	0	0	0	0	0	0	0	-72	-232
R19 Soybeans Solid Manure Spring	R19	1.6	Soybeans with Manure	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R19 Soybeans Solid Manure Fall	R19	1.6	Soybeans with Manure	Solid Cattle Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	10	tons/A	0	0	0	0	0	0	0	-50	-98
R19 Soybeans Solid Manure Winter	R19	1.6	Soybeans with Manure	Solid Cattle Manure	Winter	Winter: Summer Utilization. Single crop corn or annuals- Cover crop for silage	10	tons/A	0	0	0	0	0	0	0	-50	-98

## **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R18 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R18 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Soybeans Liquid Manure Spring	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R19 Soybeans Liquid Manure Fall	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Soybeans Liquid Manure Winter	Soybeans with Manure	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Soybeans Solid Manure Spring	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R19 Soybeans Solid Manure Fall	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Soybeans Solid Manure Winter	Soybeans with Manure	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R18 Soybeans Liquid Manure Spri		nure Spring	ng R18 Soybeans Liquid Manure Fall			R18 Soybeans Liquid Manure Winter F			er R18 Soybeans Solid Manure Spring			R18 Soybeans Solid Manure Fal			R18 Soybeans Solid Manure Winter		
Fields		R18			R18			R18			R18			R18			R18	
Acres		5.0			5.0			5.0			5.0			5.0			5.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P		ppm P			ppm P			ppm P			
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	166			166			166		166		166			166	166			
P Index Part A Evaluation								Winter									Winter	
Part A Result		N Based			N Based			Part B			N Based			N Based			Part B	
Crop	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyt	eans with Ma	anure	Soyb	eans with Ma	anure	Soyb	eans with Ma	anure	Soyt	eans with Ma	anure
Planned Yield		50	bu/A		50	bu/A	,	50	bu/A		50	bu/A	,	50	bu/A	,	50	bu/A
	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					,													
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	Continuousl Cr	y - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	35	Continuous Cr	y - Summer op	35	Continuous Ci	ly - Summer rop	35	Continuousl Cr	y - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previ Legi	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previo Legi	ous Year ume
Net Nutrients Required (Ib/A)	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle Manure			Solid Cattle Manure			Solid Cattle	Manure		Solid Cattle Manure		
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal Ik			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn c	mmer Utilizat r annuals-Co silage	tion. Single ver crop for	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: incl. wint system: Inc	Early spring er crop in do orporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizati r annuals-Cov silage	ion. Single ver crop for
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N NH4-N Org. N		Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20		
P Index Application Method							Surface app. when frozen/snow covered									Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		21,044	gal/A		21,044	gal/A	21 044 nal/A				59	tons/A		59	tons/A		59	tons/A
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0
P Index Value								72			( )						62	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		8.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>J</b>		-,	J		.,	<b>J</b>		-			-			I	
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method								-							-			
Final Nutrient Balance (lb/A)	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98
Multiple Application																		
Soil test or Crop Removal	Nutrient Balances for P2O5 and K20 are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		D5 and K2O val and o determine	<ul> <li>Nutrient Balances for P2O5 and K2O are based on Crop Removal and</li> <li>SHOULD NOT be used to determine additional fertilizer needs</li> </ul>			Nutrient Balances for P2O5 and K2O N are based on Crop Removal and a SHOULD NOT be used to determine S additional fertilizer needs a		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs				

Nutrient Balance Sheets	R19 Soybeans Liquid Manure Spri		nure Spring	ng R19 Soybeans Liquid Manure Fall			R19 Soybeans Liquid Manure Winter			er R19 Soybeans Solid Manure Spring			ring R19 Soybeans Solid Manure Fall			R19 Soybea	ans Solid Ma	nure Winter	
Crop Group Indentification		D40			D40			D40			D40			D40			D40		
Fields		R19			R19			R19			R19			R19			R19		
Acres		1.0			1.0			1.0			1.0			1.0			1.0		
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed	
P Banking					r									1					
Mehlich 3 Soil Test P	ppm P			ppm P	-		ppm P			ppm P		ppm P	_		ppm P				
For Option 3 enter soil test for PI	293			293			293			293			293			293	293		
P Index Part A Evaluation		Soil Test F	•		Soil Test F	0	W	/inter Soil Te	st P		Soil Test F	0		Soil Test F	0	W	/inter Soil Te	st P	
Part A Result		Part B			Part B		Part B				Part B			Part B			Part B		
Сгор	Soyb	eans with Ma	anure	Soyb	peans with Ma	anure	Soyb	eans with M	anure	Soyb	eans with M	anure	Soyt	peans with Ma	anure	Soyb	eans with Ma	anure	
Planned Yield		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A		50	bu/A	
Cree Demovel Decommon detions (LD(A))	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	
Crop Removal Recommendations (LB/A)	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	160	50	70	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method					ĮĮ														
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	35	35 Continuously - Summ Crop			Continuous Cr	ly - Summer op	35	Continuous Ci	ly - Summer rop	35	Continuous Ci	ly - Summer rop	35	Continuous Cr	ly - Summer op	35	Continuous Cr	ly - Summer op	
Legume History Description Residual Legume N (lb/A)	0	No Previ	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ious Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	
Net Nutrients Required (Ib/A)	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70	125	50	70	
Manure Group	Liquid Cattle	Manure		Liquid Cattle	e Manure		Liquid Cattle	Manure	Manure (		Solid Cattle Manure		Solid Cattle	Manure		Solid Cattle	Solid Cattle Manure		
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton			
Manure Nutrient Content	N	P2O5	K20	N P2O5 K20			N	P2O5 K20		N	P2O5 K20		N P2O5 K20		N	P2O5	K20		
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	29.68 15.20 37.70		10.67	10.02 16.82		10.67 10.02 16.82			10.67	10.02	16.82	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none			Winter: Su crop corn o	/inter: Summer Utilization. Single op corn or annuals-Cover crop for silage Spring: Spring or summer utilization Incorporation after 7 days or none		er utilization- lys or none	Early Fall incl. wint system: Inc	: Early spring ter crop in do corporated aft none	utilization uble crop er 7 days or	Winter: Su crop corn o	mmer Utilizat r annuals-Co silage	tion. Single ver crop for			
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.20			0.20			0.20			0.20			
P Index Application Method	April - Oct: N	No incorp or ir	corp > 1 wk.	April - Oct: I	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered	
N Balanced Manure Rate (ton; gal/A)		21,044	gal/A		21,044	gal/A		21,044	gal/A		. 59	tons/A		59	tons/A		59	tons/A	
P Removal Balance Manure Rate		3,289	gal/A		3,289	gal/A		3,289	gal/A		5	tons/A		5	tons/A		5	tons/A	
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	emoval (lb/A)	50.0	Crop P Re	moval (lb/A)	50.0	
P Index Value		54		· ·	54			72			49			49			64		
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		10	tons/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate		,	J																
(lb/A)	47	122	302	47	122	302	47	122	302	21	100	168	21	100	168	21	100	168	
Nutrient Balance after Manure	0	-72	-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98	
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method																			
Final Nutrient Balance (Ib/A)	0 -72 -232		-232	0	-72	-232	0	-72	-232	0	-50	-98	0	-50	-98	0	-50	-98	
Multiple Application																			
Soil test or Crop Removal	Nutrient Balances for P2O5 and K2C are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O N are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs				

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	ex Version 2				
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	R18 Soybeans Liquid Manure Winter
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	al Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant fa	irm management change as o	lefined by Act 38?	If the answer is Yes to	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlic	h 3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	166
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dis	tance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure appli	cation planned for this field ?			Yes
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B vo	luntarily? (Answers are No	to all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)		•	Mehlich 3 Soil Test P (p	om P)		166
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						33
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	lethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	122
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	1
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Bool	values from P Index Fact Shee	t Table 1	0.8
Manure Rating = Manure Rate x Manure Application Method	od x P Source Coeffi	cient				98
Source Factor Sum						131
PART B: TRANSPORT FACTORS EROSION			Soil Loss (ton/acre/y	r)		0.55
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	2
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance				7
MODIFIED CONNECTIVITY	50 ft. Ri APPLIES TO	0.85 parian Buffer ) DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24						0.27
P Index Value = 2 x Source x Transport						72
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cr	op removal	Very High: 100 or greater No Phosphorus applied		

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

PART A: SCREENING TOOL CMU/Field ID	R18 Soybeans Solid Manure Winter	R19 Soybeans Liquid Manure Spring	R19 Soybeans Liquid Manure Fall	R19 Soybeans Liquid Manure Winter	R19 Soybeans Solid Manure Spring	R19 Soybeans Solid Manure Fall	R19 Soybeans Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	166	293	293	293	293	293	293
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	166	293	293	293	293	293	293
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	33	59	59	59	59	59	59
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
	-	-	-	-	-	-	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>							
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	122	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	98	48	48	80
Source Factor Sum	113	118	118	157	107	107	139
PART B: TRANSPORT FACTORS EROSION	0.55	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	2	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	7	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.27	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	62	54	54	72	49	49	64

Low: 59 or less

Nitrogen based management

# Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

							_	St Fer	arter/Oth tilizer (lk	ner b/A)	Su Fer	pplemer tilizer (II	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R1_2 Wheat Liquid Manure Spring	R1_2	14.9	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	22	0	0	0	-42	-158
R1_2 Wheat Liquid Manure Fall	R1_2	14.9	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000 gal/A	0	0	0	22	0	0	0	-42	-158
R1_2 Wheat Liquid Manure Winter	R1_2	14.9	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000 gal/A	0	0	0	10	0	0	0	4	-45
R1_2 Wheat Solid Manure Spring	R1_2	14.9	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	48	0	0	0	-20	-24
R1_2 Wheat Solid Manure Fall	R1_2	14.9	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10 tons/A	0	0	0	48	0	0	0	-20	-24
R1_2 Wheat Solid Manure Winter	R1_2	14.9	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10 tons/A	0	0	0	26	0	0	0	-20	-24
R3 Wheat Liquid Manure Spring	R3	4.3	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	22	0	0	0	-42	-158
R3 Wheat Liquid Manure Fall	R3	4.3	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000 gal/A	0	0	0	22	0	0	0	-42	-158

									St Fer	arter/Oth rtilizer (II	ner b/A)	Su Fer	ppleme tilizer (l	ntal b/A)	Nuti	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R3 Wheat Liquid Manure Winter	R3	4.3	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R3 Wheat Solid Manure Spring	R3	4.3	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R3 Wheat Solid Manure Fall	R3	4.3	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R3 Wheat Solid Manure Winter	R3	4.3	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R4 Wheat Liquid Manure Spring	R4	3.9	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R4 Wheat Liquid Manure Fall	R4	3.9	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R4 Wheat Liquid Manure Winter	R4	3.9	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R4 Wheat Solid Manure Spring	R4	3.9	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R4 Wheat Solid Manure Fall	R4	3.9	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R4 Wheat Solid Manure Winter	R4	3.9	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R5B Wheat Liquid Manure Spring	R5B	4.1	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158

									St Fer	arter/Oth tilizer (Ik	ier b/A)	Su Fer	pplemer tilizer (l	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R5B Wheat Liquid Manure Fall	R5B	4.1	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R5B Wheat Liquid Manure Winter	R5B	4.1	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R5B Wheat Solid Manure Spring	R5B	4.1	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R5B Wheat Solid Manure Fall	R5B	4.1	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R5B Wheat Solid Manure Winter	R5B	4.1	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R6 Wheat Liquid Manure Spring	R6	5.1	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R6 Wheat Liquid Manure Fall	R6	5.1	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R6 Wheat Liquid Manure Winter	R6	5.1	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R6 Wheat Solid Manure Spring	R6	5.1	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R6 Wheat Solid Manure Fall	R6	5.1	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R6 Wheat Solid Manure Winter	R6	5.1	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24

									St Fer	arter/Oth tilizer (It	ner b/A)	Su Fer	pplemei tilizer (ll	ntal o/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate	Manure <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R7 Wheat Liquid Manure Spring	R7	3.1	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R7 Wheat Liquid Manure Fall	R7	3.1	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R7 Wheat Liquid Manure Winter	R7	3.1	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R7 Wheat Solid Manure Spring	R7	3.1	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R7 Wheat Solid Manure Fall	R7	3.1	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R7 Wheat Solid Manure Winter	R7	3.1	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R8 Wheat Liquid Manure Spring	R8	9	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R8 Wheat Liquid Manure Fall	R8	9	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R8 Wheat Liquid Manure Winter	R8	9	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R8 Wheat Solid Manure Spring	R8	9	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R8 Wheat Solid Manure Fall	R8	9	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24

								St Fei	arter/Oth tilizer (II	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nuti	rient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R8 Wheat Solid Manure Winter	R8	9	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10 tons/A	0	0	0	26	0	0	0	-20	-24
R9 Wheat Liquid Manure Spring	R9	2.1	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	22	0	0	0	-42	-158
R9 Wheat Liquid Manure Fall	R9	2.1	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000 gal/A	0	0	0	22	0	0	0	-42	-158
R9 Wheat Liquid Manure Winter	R9	2.1	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000 gal/A	0	0	0	10	0	0	0	4	-45
R9 Wheat Solid Manure Spring	R9	2.1	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	48	0	0	0	-20	-24
R9 Wheat Solid Manure Fall	R9	2.1	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10 tons/A	0	0	0	48	0	0	0	-20	-24
R9 Wheat Solid Manure Winter	R9	2.1	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10 tons/A	0	0	0	26	0	0	0	-20	-24
R10 Wheat Liquid Manure Spring	R10	6.2	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000 gal/A	0	0	0	22	0	0	0	-42	-158
R10 Wheat Liquid Manure Fall	R10	6.2	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000 gal/A	0	0	0	22	0	0	0	-42	-158
R10 Wheat Liquid Manure Winter	R10	6.2	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000 gal/A	0	0	0	10	0	0	0	4	-45
R10 Wheat Solid Manure Spring	R10	6.2	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10 tons/A	0	0	0	48	0	0	0	-20	-24

									St Fer	arter/Oth tilizer (It	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nuti	ient Bala (lb/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R10 Wheat Solid Manure Fall	R10	6.2	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R10 Wheat Solid Manure Winter	R10	6.2	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R11 Wheat Liquid Manure Spring	R11	2.2	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R11 Wheat Liquid Manure Fall	R11	2.2	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R11 Wheat Liquid Manure Winter	R11	2.2	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R11 Wheat Solid Manure Spring	R11	2.2	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R11 Wheat Solid Manure Fall	R11	2.2	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R11 Wheat Solid Manure Winter	R11	2.2	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R12 Wheat Liquid Manure Spring	R12	3.3	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R12 Wheat Liquid Manure Fall	R12	3.3	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R12 Wheat Liquid Manure Winter	R12	3.3	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45

									St Fei	arter/Oth tilizer (It	ner b/A)	Su Fer	pplemei tilizer (II	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ince
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O
R12 Wheat Solid Manure Spring	R12	3.3	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R12 Wheat Solid Manure Fall	R12	3.3	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R12 Wheat Solid Manure Winter	R12	3.3	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R13 Wheat Liquid Manure Spring	R13	6.3	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R13 Wheat Liquid Manure Fall	R13	6.3	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R13 Wheat Liquid Manure Winter	R13	6.3	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R13 Wheat Solid Manure Spring	R13	6.3	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R13 Wheat Solid Manure Fall	R13	6.3	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R13 Wheat Solid Manure Winter	R13	6.3	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R14 Wheat Liquid Manure Spring	R14	4	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R14 Wheat Liquid Manure Fall	R14	4	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158

									St Fer	arter/Oth tilizer (lk	ner b/A)	Su Fer	ppleme tilizer (l	ntal b/A)	Nuti	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
R14 Wheat Liquid Manure Winter	R14	4	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R14 Wheat Solid Manure Spring	R14	4	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R14 Wheat Solid Manure Fall	R14	4	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R14 Wheat Solid Manure Winter	R14	4	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R15 Wheat Liquid Manure Spring	R15	3.6	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R15 Wheat Liquid Manure Fall	R15	3.6	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R15 Wheat Liquid Manure Winter	R15	3.6	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R15 Wheat Solid Manure Spring	R15	3.6	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R15 Wheat Solid Manure Fall	R15	3.6	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R15 Wheat Solid Manure Winter	R15	3.6	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R16 Wheat Liquid Manure Spring	R16	3.3	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158

									St Fer	arter/Oth tilizer (lk	ner b/A)	Su Fer	ppleme tilizer (l	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O
R16 Wheat Liquid Manure Fall	R16	3.3	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R16 Wheat Liquid Manure Winter	R16	3.3	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R16 Wheat Solid Manure Spring	R16	3.3	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R16 Wheat Solid Manure Fall	R16	3.3	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R16 Wheat Solid Manure Winter	R16	3.3	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R17 Wheat Liquid Manure Spring	R17	2.2	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R17 Wheat Liquid Manure Fall	R17	2.2	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R17 Wheat Liquid Manure Winter	R17	2.2	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R17 Wheat Solid Manure Spring	R17	2.2	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R17 Wheat Solid Manure Fall	R17	2.2	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R17 Wheat Solid Manure Winter	R17	2.2	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24

### **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R1_2 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R1_2 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R1_2 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R1_2 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R3 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R3 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R3 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R3 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R4 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R4 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R4 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
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R5B Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R5B Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R5B Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R5B Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R6 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R6 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R6 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R7 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R7 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R7 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R7 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R8 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R8 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R8 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R8 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R9 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R9 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R9 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R10 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R10 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R10 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R10 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R11 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R11 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R11 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R12 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R12 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R12 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R12 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R13 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R13 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R13 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R14 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R14 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R14 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R14 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R15 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R15 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R15 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R15 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R16 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may not be applied to this field if it is snow or ice covered.
R16 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R16 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R16 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R17 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

CMU/Field ID	Сгор	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R17 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R17 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R17 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R1_2 Whea	1_2 Wheat Liquid Manure Spring			eat Liquid Ma	anure Fall	R1_2 Wheat Liquid Manure Winter			R1_2 Whe	at Solid Man	ure Spring	R1_2 Wr	heat Solid Ma	nure Fall	R1_2 Wheat Solid Manure Winter			
Crop Group Indentification																			
Fields		R1_2			R1_2			R1_2			R1_2			R1_2			R1_2		
Acres		14.9			14.9		14.9		14.9				14.9			14.9			
NBS Option	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Option 3 P Index Must be Completed		Option 3 P Index Must be Completed			Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed	
P Banking					1		_												
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	_		ppm P			
For Option 3 enter soil test for PI	223			223			223			223			223			223	223		
P Index Part A Evaluation		Soil Test P	•		Soil Test F	>	W	/inter Soil Te	st P		Soil Test F	<b>)</b>		Soil Test F	<b>b</b>	W	Winter Soil Test P		
Part A Result		Part B		Part B				Part B			Part B			Part B			Part B		
Сгор		Wheat		Wheat				Wheat			Wheat			Wheat			Wheat		
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A	
Cran Demoval Decommon detions (LD(A))	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0 0 0		0	0	0	0	0	0	0	0	0	0	0	0		
P Index Application Method														,					
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	11	11 Continuously - Winter Crop			Continuou: Ci	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous	sly - Winter op	11	Continuous Cr	sly - Winter op	
Legume History Description Residual Legume N (Ib/A)	0 No Previous Year Legume			0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	
Net Nutrients Required (Ib/A)	69	60 80 144		69 80 144		69 80 144		69	80 144		69 80 144			69	80	144			
Manure Group	Liquid Cattle	Manure	144	Liquid Cattle Manure			Liquid Cattle Manure			Solid Cattle Manure			Solid Cattle	Manure	144	Solid Cattle	144		
	lb/1000 gal	manare		lb/1000 gal			lb/1000 gal	manaro		lb/ton			lb/ton	Manare		lb/ton			
Manura Nutriant Contant	N	P205	K20	N P205 K20			N	P2O5 <b>K20</b>		N	P205	K20	N P205 K20		N	P205	K 20		
(he/tep.or.1000.gel)	20.69	15.20	27.70	N P2O5 K20		20.69	P2O5 <b>K20</b>		10.67	10.02	16.92	10.67	10.02	16.02	10.67	10.02	16.00		
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: Summer utilization with no cover crop: All methods of incorporation			Winter: Early Spring Utililization. Small grains and established grass or legume hay		Spring: Spri Incorporati	Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Early Spring Utililiza Small grains and established or legume hay		tililization. shed grass y		
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40			
P Index Application Method	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered	
N Balanced Manure Rate (ton: gal/A)		11.616	gal/A		11.616	gal/A		5.813	gal/A		. 32	tons/A		. 32	tons/A		16	tons/A	
P Removal Balance Manure Rate		5.263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A	
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	
P Index Value		40			40			41			36			36			49		
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		5.000	gal/A		10	tons/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate		-,	<b>J</b>		-,	<b>J</b>		-,	<b>J</b>		-			-			-		
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168	
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24	
Supplemental Fertilizer (Ib/A)	22	0	0	22	0	0	10	0	0	48	0	0	48	0	0	26	0	0	
P Index Application Method				i	1			r					1	i		-	r		
Final Nutrient Balance (Ib/A)	0 -42 -158		0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24		
Multiple Application																			
Soil test or Crop Removal	Nutrient Balances for P2O5 and K2O N are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Bala are based or SHOULD NO additional fe	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			20 Nutrient Balances for P2O5 and K2O are based on Crop Removal and he SHOULD NOT be used to determine additional fertilizer needs					

Nutrient Balance Sheets	R3 Wheat	R3 Wheat Liquid Manure Spring			at Liquid Mar	ure Fall	R3 Wheat	R3 Wheat Liquid Manure Winter			t Solid Manu	re Spring	R3 Whe	eat Solid Man	ure Fall	R3 Wheat Solid Manure Winter			
Crop Group Indentification																			
Fields		R3			R3			R3			R3			R3			R3		
Acres		4.3			4.3		4.5		4.3				4.3			4.5			
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P Index Must be Completed			Option 3 P	Index Must be	e Completed	Option 3 P I	Option 3 P Index Must be Completed		
P Banking																			
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P			ppm P			
For Option 2 enter soil test for Pl	157			157			157			157			157			157	157		
P Index Part A Evaluation								Winter									Winter		
Part A Result		N Based		N Based				Part B			N Based			N Based			Part B		
Сгор		Wheat		Wheat				Wheat			Wheat			Wheat			Wheat		
Planned Yield		80	bu/A		80	bu/A		80	) bu/A		80	bu/A		80	bu/A		80	bu/A	
Crop Removal Recommandations (LR(A)	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	Ν	P2O5	K2O	
Crop Removal Recommendations (EB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0 0 0			0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method																			
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op	
Legume History Description Residual Legume N (Ib/A)	0	0 No Previous Year Legume			No Previ Legi	ous Year ume	0	No Prev Leç	ious Year gume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	
Net Nutrients Required (Ib/A)	69 80 144			69 80 144			69 80 144		69	80 144		69 80 144			69	144			
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle Manure			Solid Cattle Manure			Solid Cattle	Manure		Solid Cattle			
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton			
Manure Nutrient Content	N	P2O5	K20	N P2O5 K20			N	N P2O5 K20		N	P2O5	K20	N P2O5 K20			N	P2O5	K20	
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	29.68 15.20 37.70		10.67	10.02 16.82		10.67	10.02	16.82	10.67	10.02	16.82	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: Summer utilization with no cover crop: All methods of incorporation			Winter: Early Spring Utililization. Small grains and established grass or legume hay		Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass y		
Availability Eastern	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40			
P Index Application Method	5	Select Metho	d	5	Select Metho	d	Surface app.	when frozen/	snow covered	5	Select Metho	d		Select Metho	d	Surface app.	when frozen/s	now covered	
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A	
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	3 gal/A		8	tons/A		8	tons/A		8	tons/A	
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	
P Index Value		( )						36			(. )						43		
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		5.000	) gal/A		10	tons/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate		-,	<b>3</b>		-,	<b>3</b>		-,	<b>J</b>		-			-			-		
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168	
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24	
Supplemental Fertilizer (Ib/A)	22	0	0	22	0	0	10	0	0	48	0	0	48	0	0	26	0	0	
P Index Application Method																			
Final Nutrient Balance (Ib/A)	0 -42 -158		-158	0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24	
Multiple Application																			
Soil test or Crop Removal	Nutrient Balances for P2O5 and K2O N are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Bala are based of SHOULD No additional fe	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			<ul> <li>Nutrient Balances for P2O5 and K2O are based on Crop Removal and</li> <li>SHOULD NOT be used to determine additional fertilizer needs</li> </ul>		D5 and K2O oval and o determine			

Nutrient Balance Sheets	R4 Wheat	R4 Wheat Liquid Manure Spring			at Liquid Mar	nure Fall	R4 Whea	R4 Wheat Liquid Manure Winter			t Solid Manu	re Spring	R4 Whe	eat Solid Man	ure Fall	R4 Whea	t Solid Manu	re Winter	
Fields		R4			R4			R4			R4			R4			R4		
Acres		3.9			3.9			3.9		3.9				3.9			3.9		
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P Index Must be Completed			Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed	
P Banking																			
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P		ppm P			ppm P			ppm P	ppm P			
For Option 2 enter maximum Soil Test							ppnt r					ppm P							
For Option 3 enter soil test for PI	335			335			335			335			335			335	335		
P Index Part A Evaluation		Soil Test F	)	Soil Test P			V	/inter Soil Te	est P		Soil Test F	)		Soil Test F	<b>)</b>	W	Winter Soil Test P		
Part A Result		Part B		Part B				Part B			Part B			Part B			Part B		
Сгор		Wheat		Wheat				Wheat			Wheat			Wheat			Wheat		
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A	
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0 0 0		0	0	0	0	0	0	0	0	0	0	0	0		
P Index Application Method				<u>+l</u>								°		·					
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	11	11 Continuously - Winter Crop			Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuou: Ci	sly - Winter op	
Legume History Description Residual Legume N (Ib/A)	0 No Previous Year Legume			0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	
Net Nutrients Required (Ib/A)	69	69 80 144			69 80 144			69 80 144		69	80 144		69 80 144			69	69 80 14		
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle Manure			Solid Cattle Manure			Solid Cattle	Manure		Solid Cattle Manure			
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			ib/ton			
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	N P2O5 K20		N	P2O5 <b>K20</b>		N	P2O5	K20	N	P2O5	K20	
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20 37.70		10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: Summer utilization with no cover crop: All methods of incorporation			Winter: Early Spring Utililization. Small grains and established grass or legume hay		Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of 1	10 Winter: Early Spring Utili Small grains and establish or legume hay		tililization. ished grass y		
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40			
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or in	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A	
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A	
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	
P Index Value		49			49			50			45			45			57		
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate (Ib/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168	
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24	
Supplemental Fertilizer (Ib/A)	22	0	0	22	0	0	10	0	0	48	0	0	48	0	0	26	0	0	
P Index Application Method	22 0 0			1	1			1			1		1						
Final Nutrient Balance (lb/A)	0 -42 -158		0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24		
Multiple Application	e (Ib/A) 0 -42 -158				1		-					1	-						
Soil test or Crop Removal	Nutrient Balances for P2O5 and K2O I are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Bala are based o SHOULD No additional fe	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			<ul> <li>Nutrient Balances for P2O5 and K2O are based on Crop Removal and</li> <li>SHOULD NOT be used to determine additional fertilizer needs</li> </ul>					

Nutrient Balance Sheets	R5B Whea	5B Wheat Liquid Manure Spring			R5B Wheat Liquid Manure Fall			R5B Wheat Liquid Manure Winter			at Solid Manu	ure Spring	R5B Wh	neat Solid Ma	nure Fall	R5B Wheat Solid Manure Winter			
Crop Group Indentification	-	DED			DED			DED			DED			DED			DED		
Acros		/ 1			/ 1			/ 1			/ 1			/ 1			/ 1		
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P Index Must be Completed			Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed	
D Panking																			
	nnm P			nnm P			nnm P	2000 D		nnm P			nnm P			nnm P			
For Option 2 enter maximum Soil Test	ррпп			ррпп			ррпп	ppm P		ppiiri			ppini	_		ppini			
For Option 3 enter soil test for PI	329			329			329			329			329			329	329		
P Index Part A Evaluation		Soil Test P	•		Soil Test F	<b>b</b>	W	/inter Soil Te	st P		Soil Test F	<b>)</b>		Soil Test F	<b>b</b>	W	inter Soil Te	st P	
Part A Result		Part B		Part B				Part B			Part B			Part B			Part B		
Сгор		Wheat		Wheat				Wheat			Wheat			Wheat			Wheat		
Planned Yield		80	bu/A	80 bu/A				80	bu/A		80	bu/A		80	bu/A		80	bu/A	
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method								-				-		·					
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	11	11 Continuously - Winter Crop			Continuous Cr	sly - Winter op	11	Continuou Ci	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous	sly - Winter op	11	Continuous Cr	sly - Winter op	
Legume History Description Residual Legume N (lb/A)	0 No Previous Year Legume			0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	
Net Nutrients Required (Ib/A)	69	60 80 114		60 80 144		69	69 80 144		69	80 444		69	80	144	69	69 80			
Manure Group	Liquid Cattle	Manure	144	Liquid Cattle Manure			Liquid Cattle Manure			Solid Cattle Manure			Solid Cattle	Manure	144	Solid Cattle Manure			
	lb/1000 gal	Wallure		lb/1000 gal			lb/1000 gal		lb/ton			lb/ton	Mariare		lb/ton				
Manura Nutriant Contant	N	P2O5	K20	N P2O5 K20			N	P2O5 K20		N	P205	K20	N P205 K20			N	K20		
(lbs/top or 1000 gal)	20.68	15 20	27.70	N P2O5 K20		20.68	15 20 37 70		10.67	10.02	16.82	10.67	10.02	16.92	10.67	10.02	16.92		
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: Summer utilization with no cover crop: All methods of incorporation			Winter: Early Spring Utililization. Small grains and established grass or legume hay		Spring: Spri Incorporati	Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	o Winter: Early Spr Small grains and e or legur		tililization. ished grass y		
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40			
P Index Application Method	April - Oct: N	lo incorp or ir	corp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A	
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A	
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	
P Index Value		49			49			49			44			44			57		
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate		,	J			<b>J</b>		,											
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168	
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24	
Supplemental Fertilizer (Ib/A)	22	22 0 0		22	0	0	10	0	0	48	0	0	48	0	0	26	0	0	
P Index Application Method								_											
Final Nutrient Balance (lb/A)	0 -42 -158		0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24		
Multiple Application																			
Soil test or Crop Removal	Nutrient Balances for P2O5 and K2O N are based on Crop Removal and a SHOULD NOT be used to determine S additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Bala are based of SHOULD NO additional fe	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			<ul> <li>Nutrient Balances for P2O5 and K2O are based on Crop Removal and</li> <li>SHOULD NOT be used to determine additional fertilizer needs</li> </ul>					

Nutrient Balance Sheets	R6 Wheat	t Liquid Manu	ire Spring	R6 Whe	at Liquid Mar	nure Fall	R6 Whea	t Liquid Man	ure Winter	R6 Whea	t Solid Manu	re Spring	R6 Whe	eat Solid Man	ure Fall	R6 Whea	t Solid Manu	re Winter
Fields		R6			R6			R6			R6			R6			R6	
Acres		5.1			5.1			5.1			5.1			5.1			5.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	370			370			370			370			370	-		370		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	<b>)</b>	V	/inter Soil Te	est P		Soil Test F	<b>b</b>		Soil Test F	<b>b</b>	W	inter Soil Te	st P
Part A Result	-	Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
	N	P2O5	K2O	N	P205	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method						•			÷			•					-	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Win Crop 0 No Previous Yea Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	0         Continuously - Wir Crop           0         No Previous Yea Legume           69         80         144           Liquid Cattle Mapure         144			0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	69	80	144	69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover o	cummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U as and establ or legume ha	Itililization. lished grass	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U s and establi or legume ha	iililization. shed grass /
Availability Easters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or in	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		52			52			53			48			48			60	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate (lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22	0	0	22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method	22 0 0						-	-	1 -		-		-	. · ·	-			-
Final Nutrient Balance (Ib/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	0 -42 -158							•			•					•		
Soil test or Crop Removal	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used to ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R7 Wheat	t Liquid Manu	ire Spring	R7 Whe	at Liquid Mar	ure Fall	R7 Wheat	: Liquid Man	ure Winter	R7 Whea	it Solid Manu	re Spring	R7 Whe	eat Solid Man	ure Fall	R7 Whea	t Solid Manu	re Winter
Crop Group Indentification		57									57						57	
Fields		R/			R/			R/			R/			R/			R/	
Acres		3.1			3.1			3.1			3.1			3.1			3.1	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking	_			_														
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	_		ppm P		
For Option 3 enter soil test for Pl	355			355			355			355			355			355		
P Index Part A Evaluation		Soil Test F	)		Soil Test P	•	W	/inter Soil Te	est P		Soil Test F	0		Soil Test F	0	W	inter Soil Tes	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	) bu/A		80	bu/A		80	bu/A		80	bu/A
Crop Removal Recommandations (LR(A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	Ν	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Wint Crop 0 No Previous Year Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuou: Ci	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	11         Continuously - Wint Crop           0         No Previous Year Legume           69         80         144           Liquid Cattle Manure         110         110			0	No Previ Legi	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Legi	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Year Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liguid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U s and establ or legume ha	Itililization. ished grass	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	rly Spring Ut s and establi r legume hay	tililization. shed grass y
Associate Mitta - Experience	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		11,616	gal/A		11,616	gal/A		5,813	aal/A		. 32	tons/A		. 32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		51			51			51			46			46			59	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		5.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>3</b>		-,	<b>3</b>		-,	<b>J</b> =		-			-			-	
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22         -42         -130           22         0         0			22	U	U	10	0	0	48	0	0	48	0	Ű	26	U	Ű
P Index Application Method									1		1	1		1	1			1
Final Nutrient Balance (lb/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	U -72 100																	
Soil test or Crop Removal	22     0     0       0     -42     -15i       Nutrient Balances for P2O5 and I are based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 Crop Remo DT be used to tilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R8 Wheat	Liquid Manu	ire Spring	R8 Whe	at Liquid Mar	nure Fall	R8 Wheat	t Liquid Man	ure Winter	R8 Whea	t Solid Manu	re Spring	R8 Whe	eat Solid Man	ure Fall	R8 Whea	t Solid Manu	re Winter
Fields		R8			R8			R8			R8			R8			R8	
Acres		9.0			9.0			9.0			9.0			9.0			9.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	208			208			208			208			208			208		
P Index Part A Evaluation		Soil Test P	)		Soil Test F	)	W	/inter Soil Te	st P		Soil Test F	)		Soil Test F	>	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
	N	P2O5	K20	N	P205	K20	N	P2O5	K20	N	P205	K20	N	P2O5	K20	N	P2O5	K20
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0 11 Continuously - Wir Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Win Crop 0 No Previous Yea Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	11     Continuously - Win Crop       0     No Previous Yea       0     Legume       69     80     144       Liquid Cattle Manure			0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yea Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Sprin Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no hods of 1	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	ililization. shed grass /
Associate Marson Experience	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		39			39			40			35			35			47	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22 -42 -15			22	0	0	10	0	-10	48	0	0	48	0	0	26	0	0
P Index Application Method	22 0 0				v	Ŭ	10	Ŭ	Ŭ		v	v		l v	Ŭ	20	v	v
Final Nutrient Balance (Ib/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
	0 -42 -158				-+2	-150		-	-+5	5	-20	-24	Ū	-20	-24	J	-20	-24
Soil test or Crop Removal	22     -42     -16       22     0     0       0     -42     -15       Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to deterr additional fertilizer needs			Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R9 Wheat	t Liquid Manu	ire Spring	R9 Whe	at Liquid Mar	nure Fall	R9 Wheat	t Liquid Man	ure Winter	R9 Whea	it Solid Manu	re Spring	R9 Whe	eat Solid Man	ure Fall	R9 Whea	t Solid Manu	re Winter
Crop Group Indentification		DO			DA			DO			DO			DO			Do	
Acros		2.1			2.1			2.1			2.1			2.1			2.1	
NBS Option	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
D Deskins						· · · · · · · · · · · ·												
	nnm P			nnm P			nnm P			nom P			nnm P			nnm P		
Menlich 3 Soil Test P For Option 2 enter maximum Soil Test	рршт			рршт	-		рршт	-		ррше	-		рршт	-		ррште		
For Option 3 enter soil test for PI	269			269			269			269			269			269		
P Index Part A Evaluation		Soil Test P	)		Soil Test F	<b>)</b>	W	/inter Soil Te	est P		Soil Test F	)		Soil Test F	2	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	) bu/A		80	bu/A		80	bu/A		80	bu/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		0 11 Continuously - Win Crop												J				
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Win Crop 0 No Previous Yea Legume			11	Continuous	sly - Winter	11	Continuou	isly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter
Legume History Description Residual Legume N (Ib/A)	Continuously - Wir       11     Crop       0     No Previous Yea       69     80			0	No Previ	ous Year	0	No Prev	ious Year	0	No Previ	ous Year	0	No Previ	ous Year	0	No Previ	ous Year
	Crop           0         No Previous Yea           Legume         69         80         144				209			20			209			209			209	
Net Nutrients Required (Ib/A)	0 No Previous Yea Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	Itililization. lished grass ay	Spring: Spri Incorporat	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of 1	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass ⁄
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: I	No incorp or ir	ncorp > 1 wk.	April - Oct: 1	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		11.616	nal/A		11.616	nal/A		5.813	A/lan		32	tons/A		32	tons/A		16	tons/A
P Removal Balance Manure Rate		5.263	gal/A		5.263	gal/A		5.263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value	0.001.10	44	00.0	0.0001.140	44	00.0	0.001 1.0	45	00.0	0.001.14	40	00.0	olop i ita	40	00.0	0.001.110	52	00.0
Planned Manure Rate (ton or gal/A)		8.000	aal/A		8.000	nal/A		5.000	A/len (		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		0,000	guin		0,000	guirA		0,000	guira					1	tona/A			
(Ib/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22	0	0	22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method					i	n		i			1	r						
Final Nutrient Balance (Ib/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application																		
Soil test or Crop Removal	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Rem OT be used rtilizer needs	05 and K2O oval and to determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O wal and o determine

Nutrient Balance Sheets	R10 Whea	at Liquid Man	ure Spring	R10 Whe	eat Liquid Ma	nure Fall	R10 Whea	at Liquid Man	ure Winter	R10 Whea	at Solid Manu	ure Spring	R10 Wh	neat Solid Mar	nure Fall	R10 Whea	at Solid Manu	ure Winter
Crop Group Indentification							L											
Fields		R10			R10			R10			R10			R10			R10	
Acres		6.2			6.2			6.2			6.2			6.2			6.2	
NBS Option	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must be	Completed	Option 3 P In	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	Completed	Option 3 P I	ndex Must be	Completed
P Banking								T										
Mehlich 3 Soil Test P	ppm P	4		ppm P		l	ppm P	-		ppm P			ppm P	_	ł	ppm P		
For Option 2 enter maximum Soli Test For Option 3 enter soil test for Pl	326			326			326			326			326		ľ	326		
P Index Part A Evaluation		Soil Test P	,		Soil Test P	,	W	/inter Soil Te	st P		Soil Test F	<b>b</b>		Soil Test F	,	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Crop		Wheat			Wheat			Wheat			Wheat			Wheat	ł		Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
	Ν	P2O5	K2O	Ν	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)			L												<u> </u>			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Wint Crop 0 No Previous Yeal Legume			11	Continuous Cr	sly - Winter rop	11	Continuou: C <sup>i</sup>	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	11         Continuously - Win Crop           0         No Previous Yea Legume           69         80         144			0	No Previo Legi	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	69	80	144	69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure	L	Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	L	Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P2O5	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	r utilization-	Early Fall: S cover of	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring Ut s and establi or legume ha	illization. shed grass y
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: 1	No incorp or in	ncorp > 1 wk.	April - Oct: 1	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	snow covered
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A	-	32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		50			50			50			45			45			58	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		5.000	gal/A		10	tons/A	-	10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate			94.71			94.71		-,	94.71				-	T				
(Ib/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22         -42         -158           22         0         0			22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method						· · · · · · ·			·		i	r						
Final Nutrient Balance (lb/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	0 -42 -136																	
Soil test or Crop Removal	22     -42     -16       22     0     0       0     -42     -15       Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to detern additional fertilizer needs			Nutrient Bal;	ances for P20	05 and K2O	Nutrient Bal;	ances for P2	O5 and K2O	Nutrient Bala	ances for P20	05 and K2O	Nutrient Bal	lances for P20	05 and K2O	Nutrient Bala	ances for P20	05 and K2O

Nutrient Balance Sheets	R11 Whea	t Liquid Man	ure Spring	R11 Whe	eat Liquid Ma	nure Fall	R11 Whea	at Liquid Man	ure Winter	R11 Whea	at Solid Man	ure Spring	R11 Wh	neat Solid Mai	nure Fall	R11 Whea	at Solid Manu	ure Winter
Crop Group Indentification																		
Fields		R11			R11			R11			R11			R11			R11	
Acres		2.2			2.2			2.2			2.2			2.2			2.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking	_			_	1			1		_			_	1		_		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	_		ppm P	i -	
For Option 2 enter maximum Soil Test For Option 3 enter soil test for Pl	268			268			268			268			268			268	I	
P Index Part A Evaluation		Soil Test F	)		Soil Test F	2	W	/inter Soil Te	st P		Soil Test F	)		Soil Test F	2	W	inter Soil Ter	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																	, I	
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					,									,				
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Win Crop 0 No Previous Yea Legume			11	Continuou: Ci	sly - Winter rop	11	Continuou C	sly - Winter rop	11	Continuou Ci	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	11         Continuously - Win Crop           0         No Previous Yea Legume           69         80         144           Liquid Cattle Manure         144			0	No Previ Leg	ious Year jume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Year Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group				Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
	lb/1000 gal	manaro		lb/1000 gal	manaro		lb/1000 gal	manaro		lb/ton	manaro		lb/ton	manaro		lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P2O5	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15 20	37.70	29.68	15.20	37.70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no hods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	Irly Spring Ut s and establi or legume hay	tililization. shed grass y
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or i	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		11.616	gal/A		11.616	gal/A		5.813	gal/A		. 32	tons/A		. 32	tons/A		16	tons/A
P Removal Balance Manure Rate		5.263	gal/A		5,263	gal/A		5.263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		45			45			46			41			41			53	
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		5.000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>3</b>		-,	<b>3</b>		-,	<b>J</b>		-			-				
(Ib/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22         -42         -158           22         0         0			22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method					n			i			r			i				i
Final Nutrient Balance (Ib/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application																		
Soil test or Crop Removal	0         -42         -15           Nutrient Balances for P2O5 and I are based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	D5 and K2O wal and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	Inces for P20 Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R12 Whea	t Liquid Man	ure Spring	R12 Whe	eat Liquid Ma	nure Fall	R12 Whea	at Liquid Mar	ure Winter	R12 Whea	at Solid Manı	ure Spring	R12 Wh	neat Solid Mai	nure Fall	R12 Whea	at Solid Manu	ure Winter
Crop Group Indentification		D40			D40			D40			D40			D12			D40	
		R12			22			22			R1Z			R12			R12	
Acres		3.3			3.3			3.3			3.3			3.3			3.3	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking				_			-	1										
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	270			270			270			270			270			270		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	W	/inter Soil Te	est P		Soil Test F	0		Soil Test F	2	W	/inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method														,				
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Wint Crop 0 No Previous Year Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	11     Continuously - Wint Crop       0     No Previous Year Legume       69     80     144       Liquid Cattle Manure			0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Year Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liguid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/top or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37 70	29.68	15 20	37 70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	Itililization. lished grass	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass
Availability Easters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		11,616	gal/A		11,616	gal/A		5,813	aal/A		. 32	tons/A		. 32	tons/A		16	tons/A
P Removal Balance Manure Rate		5.263	gal/A		5.263	gal/A		5.263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P R	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
	0.001.140	45	00.0	0.0001.140	45	00.0	0.001.10	46	00.0	0.0001.100	41	00.0	olop i ita	41	00.0	0.001.110	53	00.0
Planned Manure Rate (top or gal/A)		8 000	A/len		8 000	A/len		5 000			10	tons/A		10	tons/A		10	tons/A
Nutriente Applied et Blepped Menure Rete		0,000	gairA		0,000	gairA		0,000	gai/A		10			10	tona/A		10	tona/A
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22 -42 -158			22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22         -42         -158           22         0         0			22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method								1	1			r		T	1			r
Final Nutrient Balance (lb/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	U -42 -130																	
Soil test or Crop Removal	22     0     0       0     -42     -15       Nutrient Balances for P2O5 and lare based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O wal and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R13 Whea	it Liquid Man	ure Spring	R13 Whe	eat Liquid Ma	nure Fall	R13 Whea	at Liquid Mar	ure Winter	R13 Whea	at Solid Manu	ure Spring	R13 Wh	neat Solid Mar	nure Fall	R13 Whea	at Solid Manu	ure Winter
Crop Group Indentification		<b>B</b> 40			<b>B</b> 10			<b>B</b> 10			<b>B</b> 40			<b>D</b> 40			<b>B</b> 10	
		R13			R13			R13			R13			R13			R13	
Acres		0.3			0.3			0.3			0.3			0.3			0.5	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking								1										
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P	_		ppm P		
For Option 3 enter soil test for Pl	312			312			312			312			312			312		
P Index Part A Evaluation		Soil Test F	0		Soil Test P	•	W	/inter Soil Te	est P		Soil Test F	<b>b</b>		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
Crop Removal Recommandations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	Ν	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			-			-								•			-	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Wint Crop 0 No Previous Year Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous	sly - Winter op	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	11         Continuously - Win Crop           0         No Previous Yea Legume           69         80         144			0	No Previ Leg	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yea Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/top or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37.70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring L is and establ or legume ha	Itililization. ished grass ly	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass y
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	lo incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		11,616	gal/A		11,616	gal/A		5,813	aal/A		. 32	tons/A		. 32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P R	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		48	00.0		48	00.0		49	00.0		44	00.0		44	00.0		57	00.0
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		5.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	94.71		-,	94.77		-,	9									
(Ib/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22 -42 -158			22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (lb/A)	22         -42         -158           22         0         0			22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method																		
Final Nutrient Balance (Ib/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	U "42 -130																	
Soil test or Crop Removal	22     0     0       0     -42     -15       Nutrient Balances for P2O5 and are based on Crop Removal and SHOULD NOT be used to detern additional fertilizer needs			Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Rem OT be used rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R14 Whea	it Liquid Man	ure Spring	R14 Whe	eat Liquid Ma	nure Fall	R14 Whea	at Liquid Mar	ure Winter	R14 Whea	at Solid Man	ure Spring	R14 Wh	neat Solid Mai	nure Fall	R14 Whea	at Solid Manu	ire Winter
Crop Group Indentification		D44			D14			D14			D14			D14			D14	
Fields		K14 4.0			K 14			K 14 4 0			K 14			K 14			K 14	
Actes		4.0			4.0			4.0			4.0			4.0			4.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	Completed
P Banking														1				
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P	_		ppm P		
For Option 3 enter soil test for PI	283			283			283			283			283			283		
P Index Part A Evaluation		Soil Test F	0		Soil Test P	•	W	/inter Soil Te	est P		Soil Test F	0		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
Crop Removal Recommandations (LR(A)	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	Ν	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		•	-			-		•	÷					·	•		-	
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Wint Crop 0 No Previous Year Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuou: Ci	sly - Winter op	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	11         Continuously - Wint Crop           0         No Previous Year Legume           69         80         144           Liquid Cattle Manure         144			0	No Previ Legi	ous Year ume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ	ous Year ume
Net Nutrients Required (Ib/A)	69	0 No Previous Year Legume 69 80 144			80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	Itililization. lished grass	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	ililization. shed grass /
Asselled Block Frankras	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		11.616	gal/A		11.616	gal/A		5.813	al/A		32	tons/A		32	tons/A		16	tons/A
P Removal Balance Manure Rate		5.263	gal/A		5,263	gal/A		5.263	al/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		53	00.0		53	00.0		54	00.0		48	00.0		48	00.0		63	00.0
Planned Manure Rate (ton or gal/A)		8.000	gal/A		8.000	gal/A		5.000	aal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	gant		-,	94.77		-,	9									
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (lb/A)	22         -42         -130           22         0         0			22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method						-		1	1		i	i		1	r		-	
Final Nutrient Balance (Ib/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	U -72 100																	
Soil test or Crop Removal	22     0     0       0     -42     -15i       Nutrient Balances for P2O5 and Hare based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs     1			Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R15 Whea	t Liquid Man	ure Spring	R15 Whe	eat Liquid Ma	nure Fall	R15 Whea	at Liquid Man	ure Winter	R15 Whea	at Solid Man	ure Spring	R15 Wh	neat Solid Mar	nure Fall	R15 Whea	at Solid Manu	ire Winter
Crop Group Indentification		D.15			D.15			D.15			D.15			<b>D</b> /2			5.15	
Fields		R15			R15			R15			R15			R15			R15	
Acres		3.0			3.0			3.0			3.0			3.0			3.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking	nnm D			nnm D			nnm D	1		nnm D			nnm D			nnm D		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 3 enter soil test for Pl	283			283			283			283			283			283		
P Index Part A Evaluation		Soil Test F	0		Soil Test P	•	W	/inter Soil Te	st P		Soil Test F	<b>b</b>		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
Crop Romoval Recommondations (LR/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Clop Removal Recommendations (ED/R)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method												•		·	•			
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Wint Crop 0 No Previous Year Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuou: Cr	sly - Winter op	11	Continuous	sly - Winter op	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	11         Continuously - Win Crop           0         No Previous Yea Legume           69         80         144           Liquid Cattle Manure         144			0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yea Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liguid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure	1	Solid Cattle	Manure	1	Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	ililization. shed grass /
Availability Easters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton: gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		. 32	tons/A		. 32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		53			53			54			48			48			63	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate		-,	<b>3</b>		-,	<b>J</b>		.,	<b>J</b> =		-			_				
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22 -42 -158			22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (lb/A)	22         -42         -100           22         0         0			22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method						-			r		1	r		1	r			
Final Nutrient Balance (lb/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	U "42 -130																	
Soil test or Crop Removal	22     0     0       0     -42     -15       Nutrient Balances for P2O5 and lare based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used to ertilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O val and o determine

Nutrient Balance Sheets	R16 Whea	it Liquid Man	ure Spring	R16 Whe	eat Liquid Ma	nure Fall	R16 Whea	it Liquid Man	ure Winter	R16 Whea	at Solid Manı	ure Spring	R16 Wh	neat Solid Mar	nure Fall	R16 Whea	at Solid Manu	ure Winter
Fields		P16			P16			P16			P16			P16			P16	
Acres		33			33			33			33			33			33	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test																		
For Option 3 enter soil test for PI	423			423			423			423			423			423		
P Index Part A Evaluation		Soil Test F	)		Soil Test F	<b>)</b>	W	/inter Soil Te	st P		Soil Test F	)		Soil Test F	2	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A
Cran Demoval Decommon dations (LD/A)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method																		
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Win Crop 0 No Previous Yea Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (lb/A)	11         Continuously - Win Crop           0         No Previous Yea Legume           69         80         144           Liquid Cottle Menure         144			0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Yeal Legume			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: S cover	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U is and establ or legume ha	tililization. ished grass y	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no hods of 1	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass y
Associate Marson Experience	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Nov - Mar: N	No incorp or i	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: I	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		66			66			62			61			61			76	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22	0	0	22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method	22 0 0				-	-		-			-			1			-	-
Final Nutrient Balance (Ib/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application	0 -42 -158			L .				I ·		Ť			t -			, ,		
Soil test or Crop Removal	22     -42     -15       22     0     0       0     -42     -15       Nutrient Balances for P205 and are based on Crop Removal and SHOULD NOT be used to deterr additional fertilizer needs			Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Nutrient Balance Sheets	R17 Whea	it Liquid Man	ure Spring	R17 Whe	eat Liquid Ma	nure Fall	R17 Whea	at Liquid Mar	nure Winter	R17 Whea	at Solid Manu	ure Spring	R17 Wh	neat Solid Mar	nure Fall	R17 Whea	at Solid Manu	ure Winter
Crop Group Indentification		<b>D</b> /7			D.17			B.17			D.17			D.17			<b>D</b> / <b>7</b>	
Fields		R17			R17			R17			R17			R17			R17	
Acres		2.2			2.2			2.2			Ζ.Ζ			2.2			2.2	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	Completed	Option 3 P I	ndex Must b	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking								r						1				
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P	-		ppm P			ppm P	_		ppm P		
For Option 3 enter soil test for Pl	256			256			256			256			256			256		
P Index Part A Evaluation		Soil Test F	0		Soil Test P	•	W	/inter Soil Te	est P		Soil Test F	<b>b</b>		Soil Test F	0	W	inter Soil Te	st P
Part A Result		Part B			Part B			Part B			Part B			Part B			Part B	
Сгор		Wheat			Wheat			Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A		80	bu/A		80	) bu/A		80	bu/A		80	bu/A		80	bu/A
Cree Demovel Decommon defines (LD(A))	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (lb/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method		•				-			·		•	•		·			-	•
Double Crop CarryOver N (lb/A)	0 11 Continuously - Win Crop			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	0 11 Continuously - Wint Crop 0 No Previous Year Legume			11	Continuous Cr	sly - Winter op	11	Continuou C	sly - Winter rop	11	Continuous Cr	sly - Winter op	11	Continuous	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	11     Continuously - Win Crop       0     No Previous Yea Legume       69     80       144			0	No Previ	ous Year ume	0	No Prev Leo	ious Year gume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	0 No Previous Year Legume 69 80 144			69	80	144	69	80	144	69	80	144	69	80	144	69	80	144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure		Solid Cattle	Manure	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20
(lbs/ton or 1000 gal)	29.68	15 20	37 70	29.68	15 20	37.70	29.68	15 20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover o	ummer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring L is and establ or legume ha	Itililization. lished grass ay	Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass y
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or in	corp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P R	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		51			51			52			46			46			60	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	) gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate			J		,			,	J									
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22         -42         -130           22         0         0			22	0	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method								1	1					1	1			1
Final Nutrient Balance (lb/A)	0 -42 -158			0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
Multiple Application																		
Soil test or Crop Removal	22     0     0       0     -42     -15       Nutrient Balances for P2O5 and Lare based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs			Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O val and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Rem OT be used rtilizer needs	O5 and K2O oval and to determine S	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	x Version 2					
PART A: SCREENING TOOL CMU/Field ID			CMU/Field ID	R1_2 Wheat Liquid Manur Spring			
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	I Protection watershed?			No	
A significant farm management change as defined by Act 38?		Is there a significant fa	rm management change as d	efined by Act 38?	If the answer is Yes to	No	
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	any of these questions,	223			
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	Part B must be used.	No			
Is winter manure application planned for this field ?		Is winter manure applic		No			
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B vol		No			
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)			Mehlich 3 Soil Test P (pp	om P)		223	
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						45	
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0	
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-	
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0	
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod					0	
MANURE P RATE					Manure P (lb P2O5/acre)	122	
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.6	
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8	
Manure Rating = Manure Rate x Manure Application Metho	od x P Source Coeffi	cient				59	
Source Factor Sum						104	
PART B: TRANSPORT FACTORS			Soil Loss (ton/acre/y	r)		0.68	
EROSION		•		-			
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 Drainage Class is Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4	
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0	
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0	
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contribu	iting Distance	· · · · · · · · · · · · · · · · · · ·		•	5	
MODIFIED CONNECTIVITY	0.85 1.0 1.1 500 KT = 100 FT Grassed Waterway or None Direct Connection APPLIES TO DIST > 100 FT						
Transport Sum x Modified Connectivity / 24						0.20	
P Index Value = 2 x Source x Transport						40	
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	op removal	Very High: 100 or greater			

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

PART A: SCREENING TOOL CMU/Field ID	R1_2 Wheat Liquid Manure Fall	R1_2 Wheat Liquid Manure Winter	R1_2 Wheat Solid Manure Spring	R1_2 Wheat Solid Manure Fall	R1_2 Wheat Solid Manure Winter	R3 Wheat Liquid Manure Winter	R3 Wheat Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	223	223	223	223	223	157	157
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	Yes	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	223	223	223	223	223	157	157
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	45	45	45	45	45	31	31
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	<b>e</b> 0	0	0	0	0	0	0
MANURE P RATE	122	76	100	100	100	76	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	1	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	<b>b</b> 59	61	48	48	80	61	80
Source Factor Sum	104	106	93	93	125	92	111
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	40	41	36	36	49	36	43

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R4 Wheat Liquid Manure Spring	R4 Wheat Liquid Manure Fall	R4 Wheat Liquid Manure Winter	R4 Wheat Solid Manure Spring	R4 Wheat Solid Manure Fall	R4 Wheat Solid Manure Winter	R5B Wheat Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	335	335	335	335	335	335	329
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	335	335	335	335	335	335	329
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	67	67	67	67	67	67	66
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	76	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	61	48	48	80	59
Source Factor Sum	126	126	128	115	115	147	125
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	49	50	45	45	57	49

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R5B Wheat Liquid Manure Fall	R5B Wheat Liquid Manure Winter	R5B Wheat Solid Manure Spring	R5B Wheat Solid Manure Fall	R5B Wheat Solid Manure Winter	R6 Wheat Liquid Manure Spring	R6 Wheat Liquid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	329	329	329	329	329	370	370
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	329	329	329	329	329	370	370
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	66	66	66	66	66	74	74
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	76	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	61	48	48	80	59	59
Source Factor Sum	125	127	114	114	146	133	133
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	49	49	44	44	57	52	52

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R6 Wheat Liquid Manure Winter	R6 Wheat Solid Manure Spring	R6 Wheat Solid Manure Fall	R6 Wheat Solid Manure Winter	R7 Wheat Liquid Manure Spring	R7 Wheat Liquid Manure Fall	R7 Wheat Liquid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	370	370	370	370	355	355	355
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	370	370	370	370	355	355	355
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	74	74	74	74	71	71	71
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	76	100	100	100	122	122	76
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	61	48	48	80	59	59	61
Source Factor Sum	135	122	122	154	130	130	132
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	53	48	48	60	51	51	51

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R7 Wheat Solid Manure Spring	R7 Wheat Solid Manure Fall	R7 Wheat Solid Manure Winter	R8 Wheat Liquid Manure Spring	R8 Wheat Liquid Manure Fall	R8 Wheat Liquid Manure Winter	R8 Wheat Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	355	355	355	208	208	208	208
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	355	355	355	208	208	208	208
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	71	71	71	42	42	42	42
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	76	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	61	48
Source Factor Sum	119	119	151	101	101	103	90
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	46	46	59	39	39	40	35

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R8 Wheat Solid Manure Fall	R8 Wheat Solid Manure Winter	R9 Wheat Liquid Manure Spring	R9 Wheat Liquid Manure Fall	R9 Wheat Liquid Manure Winter	R9 Wheat Solid Manure Spring	R9 Wheat Solid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	208	208	269	269	269	269	269
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	208	208	269	269	269	269	269
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	42	42	54	54	54	54	54
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	122	122	76	100	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	61	48	48
Source Factor Sum	90	122	113	113	115	102	102
PART B: TRANSPORT FACTORS EROSION	0.68	0.68	0.68	0.68	0.68	0.68	0.68
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	35	47	44	44	45	40	40

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R9 Wheat Solid Manure Winter	R10 Wheat Liquid Manure Spring	R10 Wheat Liquid Manure Fall	R10 Wheat Liquid Manure Winter	R10 Wheat Solid Manure Spring	R10 Wheat Solid Manure Fall	R10 Wheat Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	269	326	326	326	326	326	326
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	269	326	326	326	326	326	326
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	65	65	65	65	65	65
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	76	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	61	48	48	80
Source Factor Sum	134	124	124	126	113	113	145
PART B: TRANSPORT FACTORS EROSION	0.68	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	52	50	50	50	45	45	58

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R11 Wheat Liquid Manure Spring	R11 Wheat Liquid Manure Fall	R11 Wheat Liquid Manure Winter	R11 Wheat Solid Manure Spring	R11 Wheat Solid Manure Fall	R11 Wheat Solid Manure Winter	R12 Wheat Liquid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	268	268	268	268	268	268	270
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	268	268	268	268	268	268	270
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	54	54
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	122	76	100	100	100	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	59	61	48	48	80	59
Source Factor Sum	113	113	115	102	102	134	113
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	45	46	41	41	53	45

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R12 Wheat Liquid Manure Fall	R12 Wheat Liquid Manure Winter	R12 Wheat Solid Manure Spring	R12 Wheat Solid Manure Fall	R12 Wheat Solid Manure Winter	R13 Wheat Liquid Manure Spring	R13 Wheat Liquid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	270	270	270	270	270	312	312
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	270	270	270	270	270	312	312
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	54	54	54	54	54	62	62
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	122	76	100	100	100	122	122
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	1	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	59	61	48	48	80	59	59
Source Factor Sum	113	115	102	102	134	121	121
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	0.791	0.791	0.791
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	5	5	5
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.20	0.20	0.20
P Index Value = 2 x Source x Transport	45	46	41	41	53	48	48

Low: 59 or less

Nitrogen based management

1 OR rapidly permeable soil near a stream 2 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.

3 Error Note: if there is a manure or fertilizer rate and there is no correspondi

PART A: SCREENING TOOL CMU/Field ID	R13 Wheat Liquid Manure Winter	R13 Wheat Solid Manure Spring	R13 Wheat Solid Manure Fall	R13 Wheat Solid Manure Winter	R14 Wheat Liquid Manure Spring	R14 Wheat Liquid Manure Fall	R14 Wheat Liquid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	312	312	312	312	283	283	283
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	312	312	312	312	283	283	283
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	62	62	62	62	57	57	57
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	76	100	100	100	122	122	76
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	61	48	48	80	59	59	61
Source Factor Sum	123	110	110	142	116	116	118
PART B: TRANSPORT FACTORS EROSION	0.791	0.791	0.791	0.791	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	5	5	5	5	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.20	0.20	0.20	0.20	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	49	44	44	57	53	53	54

Low: 59 or less

Nitrogen based management

PART A: SCREENING TOOL CMU/Field ID	R14 Wheat Solid Manure Spring	R14 Wheat Solid Manure Fall	R14 Wheat Solid Manure Winter	R15 Wheat Liquid Manure Spring	R15 Wheat Liquid Manure Fall	R15 Wheat Liquid Manure Winter	R15 Wheat Solid Manure Spring
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	283	283	283	283	283
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	No	Yes	No	No	Yes	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	283	283	283	283	283
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	57	57	57	57	57
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	100	122	122	76	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	0.6	1	0.6	0.6	1	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	48	80	59	59	61	48
Source Factor Sum	105	105	137	116	116	118	105
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	48	63	53	53	54	48

Low: 59 or less

Nitrogen based management
#### **Phosphorus Index**

PART A: SCREENING TOOL CMU/Field ID	R15 Wheat Solid Manure Fall	R15 Wheat Solid Manure Winter	R16 Wheat Liquid Manure Spring	R16 Wheat Liquid Manure Fall	R16 Wheat Liquid Manure Winter	R16 Wheat Solid Manure Spring	R16 Wheat Solid Manure Fall
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	283	283	423	423	423	423	423
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	No	Yes	No	No	Yes	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	283	283	423	423	423	423	423
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	57	57	85	85	85	85	85
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	100	122	122	76	100	100
MANURE APPLICATION METHOD <sup>3</sup>	0.6	1	0.6	0.6	0.8	0.6	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	48	80	59	59	49	48	48
Source Factor Sum	105	137	144	144	134	133	133
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	48	63	66	66	62	61	61

Low: 59 or less

Nitrogen based management

1 OR rapidly permeable soil near a stream 2 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.

3 Error Note: if there is a manure or fertilizer rate and there is no correspondi

#### **Phosphorus Index**

PART A: SCREENING TOOL CMU/Field ID	R16 Wheat Solid Manure Winter	R17 Wheat Liquid Manure Spring	R17 Wheat Liquid Manure Fall	R17 Wheat Liquid Manure Winter	R17 Wheat Solid Manure Spring	R17 Wheat Solid Manure Fall	R17 Wheat Solid Manure Winter
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	No	No	No	No	No	No	No
Soil Test Mehlich 3 P greater than 200 ppm P?	423	256	256	256	256	256	256
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	No	No
Is winter manure application planned for this field ?	Yes	No	No	Yes	No	No	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	423	256	256	256	256	256	256
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	85	51	51	51	51	51	51
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-	-	-	-	-	-	-
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	76	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	61	48	48	80
Source Factor Sum	165	110	110	112	99	99	131
PART B: TRANSPORT FACTORS EROSION	1.53	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	6	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	76	51	51	52	46	46	60

Low: 59 or less

Nitrogen based management

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no correspondi

#### Nutrient Balance Sheet Summary

Importing Farm:	Gary Truckenmiller
Whole Farm Note:	None

							_		St Fei	arter/Oth tilizer (II	ner b/A)	Supplemental Fertilizer (Ib/A)			Nutrient Balance (lb/A) <sup>2</sup>		ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate	Manure e <sup>1</sup>	Ν	$P_2O_5$	K₂O	N	$P_2O_5$	K₂O	N	$P_2O_5$	K₂O
R18 Wheat Liquid Manure Spring	R18	5	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R18 Wheat Liquid Manure Fall	R18	5	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R18 Wheat Liquid Manure Winter	R18	5	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R18 Wheat Solid Manure Spring	R18	5	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R18 Wheat Solid Manure Fall	R18	5	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R18 Wheat Solid Manure Winter	R18	5	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24
R19 Wheat Liquid Manure Spring	R19	1.6	Wheat	Liquid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	22	0	0	0	-42	-158
R19 Wheat Liquid Manure Fall	R19	1.6	Wheat	Liquid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	22	0	0	0	-42	-158

							-		St Fei	arter/Oth tilizer (II	ner b/A)	er Supplement A) Fertilizer (Ib/		ntal Nutrient Balance b/A) (Ib/A) <sup>2</sup>		ance	
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
R19 Wheat Liquid Manure Winter	R19	1.6	Wheat	Liquid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	5000	gal/A	0	0	0	10	0	0	0	4	-45
R19 Wheat Solid Manure Spring	R19	1.6	Wheat	Solid Cattle Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	10	tons/A	0	0	0	48	0	0	0	-20	-24
R19 Wheat Solid Manure Fall	R19	1.6	Wheat	Solid Cattle Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	10	tons/A	0	0	0	48	0	0	0	-20	-24
R19 Wheat Solid Manure Winter	R19	1.6	Wheat	Solid Cattle Manure	Winter	Winter: Early Spring Utililization. Small grains and established grass or legume hay	10	tons/A	0	0	0	26	0	0	0	-20	-24

#### **NBS Summary Notes**

Importing Farm: Gary Truckenmiller

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R18 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R18 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R18 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R18 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Wheat Liquid Manure Spring	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.
R19 Wheat Liquid Manure Fall	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Wheat Liquid Manure Winter	Wheat	Liquid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.
R19 Wheat Solid Manure Spring	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year.

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
R19 Wheat Solid Manure Fall	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall cattle manure application.
R19 Wheat Solid Manure Winter	Wheat	Solid Cattle Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported cattle manure within 100 feet of water wells or 150 feet of surface water. Imported cattle manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported swine manure in the same crop year. To apply manure to this field during winter the following conditions must be met: The field must have at least 25% plant cover or crop residue at the time of manure application. Manure may be applied to this field if it is snow or ice covered.

Nutrient Balance Sheets	R18 Whea	R18 Wheat Liquid Manure Spring		R18 Wheat Liquid Manure Fall			R18 Whea	R18 Wheat Liquid Manure Winter			R18 Wheat Solid Manure Spring			Ig R18 Wheat Solid Manure Fall		R18 Whea	at Solid Manu	re Winter
Fields		R18			R18			R18			R18			R18			R18	
Acres		5.0			5.0			5.0			5.0			5.0			5.0	
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Option 3 P Index Must be Completed		Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P		ppm P		ppm P			ppm P				
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	166			166			166	166		166		166			166			
P Index Part A Evaluation								Winter								Winter		
Part A Result	-	N Based			N Based			Part B			N Based			N Based			Part B	
Сгор		Wheat		Wheat				Wheat			Wheat			Wheat			Wheat	
Planned Yield		80	bu/A	80 bu/A			80	bu/A		80	bu/A		80	bu/A		80	bu/A	
	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20
Crop Removal Recommendations (LB/A)	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144	80	80	144
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					•	·			÷					·				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	11	11 Continuously - Winter Crop		11	Continuou: Ci	sly - Winter rop	11	Continuou C	sly - Winter rop	11	Continuou: Ci	sly - Winter op	11	Continuous Cr	sly - Winter rop	11	Continuous Cr	sly - Winter op
Legume History Description Residual Legume N (Ib/A)	0	0 No Previous Year Legume		0	No Previ Leg	ious Year jume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume
Net Nutrients Required (Ib/A)	69	80	144	69	80	144	69	80	144	69	80	144	69	80	144	69 80		144
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle Manure		Solid Cattle Manure		Solid Cattle Manure			Solid Cattle				
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/ton			lb/ton			lb/ton		
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe on after 7 da	r utilization- ys or none	Early Fall: Summer utilization with no cover crop: All methods of incorporation			Winter: Early Spring Utililization. Small grains and established grass or legume hay		Spring: Spri Incorporati	ng or summe on after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of	Winter: Ea Small grain	arly Spring Ut s and establi or legume hay	ililization. shed grass /	
Augilability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40		
P Index Application Method							Surface app.	when frozen/	snow covered							Surface app.	when frozen/s	now covered
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0
P Index Value		. ,			. ,			51			. ,			. ,			62	
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A
Nutrients Applied at Planned Manure Rate	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24
Supplemental Fertilizer (Ib/A)	22	0	0	22	-12	0	10	0	0	48	0	0	48	0	0	26	0	0
P Index Application Method	22	U	0	22	0	0	10	0	U	-10	0	U	-10	0	0	20	0	0
Final Nutrient Balance (Ib/A)	0	-42	-158	0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24
	U	-42	-150	U	-42	-150	U	-	-43	v	-20	-24	•	-20	-24	U	-20	-24
Soil test or Crop Removal	Nutrient Balances for P2O5 and K2O I are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O I are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		(20) Nutrient Balances for P2O5 and k are based on Crop Removal and SHOULD NOT be used to determ additional fertilizer needs		D5 and K2O val and o determine				

Nutrient Balance Sheets	R19 Whea	R19 Wheat Liquid Manure Spring		R19 Wheat Liquid Manure Fall			R19 Whea	R19 Wheat Liquid Manure Winter			R19 Wheat Solid Manure Spring			g R19 Wheat Solid Manure Fall			R19 Wheat Solid Manure Winter		
Crop Group Indentification		P10			P10			P10			P10			P10			P10		
Acres		16			16			16			16			16			16		
NBS Option	Option 3 P I	ndex Must be	e Completed	Option 3 P I	ndex Must be	e Completed	Option 3 P I	Option 3 P Index Must be Completed C		Option 3 P I	ndex Must b	e Completed	Option 3 P	Index Must be	e Completed	Option 3 P I	ndex Must be	e Completed	
P Banking																			
Moblich 3 Soil Test P	ppm P			ppm P			ppm P	ppm P		ppm P		ppm P			ppm P				
For Option 2 enter maximum Soil Test	293			293			293		293		293			293					
				-					-										
P Index Part A Evaluation		Soil Test F	)		Soil Test F	)	v	/inter Soil Te	est P		Soil Test H	)		Soil Lest F	)	N	Inter Soil Te	st P	
Part A Result		Part B		Part B			Part B		-	Part B			Part B			Part B			
		vvneat					wneat		-	vvneat			vvneat			vvneat			
Planned Yield		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A		80	bu/A	
Crop Removal Recommendations (LB/A)	N 80	<b>P2O5</b> 80	<b>K2O</b> 144	N 80	<b>P2O5</b> 80	<b>K2O</b> 144	N 80	<b>P2O5</b> 80	<b>K2O</b> 144	N 80	80	<b>K2O</b> 144	N 80	<b>P2O5</b> 80	<b>K2O</b> 144	N 80	<b>P2O5</b> 80	<b>K2O</b> 144	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method		I				I					I	I		1				I	
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	11 Continuously - Winter Crop		11	Continuous	sly - Winter	11	Continuou	sly - Winter	11	Continuou	sly - Winter	11	Continuous	sly - Winter	11	Continuous	sly - Winter		
Legume History Description Residual Legume N (Ib/A)	0	0 No Previous Year Legume		0	No Previ Leg	ous Year ume	0	No Prev Leg	ious Year jume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	0	No Previ Leg	ous Year ume	
Net Nutrients Required (Ib/A)	69	80	144	69	80	144	69	80	144	69	69 80 144		69 80 144		144	69	69 80		
Manure Group	Liquid Cattle	Manure		Liquid Cattle	Manure		Liquid Cattle Manure		Solid Cattle Manure		Solid Cattle Manure			Solid Cattle	Solid Cattle Manure				
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal		lb/ton			lb/ton			lb/ton	ıb/ton			
Manure Nutrient Content	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	K20	N	P205	P205 K20		P205	K20	
(lbs/ton or 1000 gal)	29.68	15.20	37.70	29.68	15.20	37.70	29.68	15.20	37.70	10.67	10.02	16.82	10.67	10.02	16.82	10.67	10.02	16.82	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: Summer utilization with no cover crop: All methods of incorporation			Winter: Early Spring Utililization. Small grains and established grass or legume hay		Spring: Spri Incorporati	ng or summe ion after 7 da	er utilization- ys or none	Early Fall: S cover	Summer utiliza crop: All meth incorporation	ation with no nods of n	Winter: Ea Small grain	arly Spring U s and establi or legume ha	tililization. shed grass y		
Availability Easters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.20			0.40			0.20			0.20			0.40			
P Index Application Method	April - Oct: N	No incorp or ir	ncorp > 1 wk.	April - Oct: N	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/	snow covered	April - Oct: N	No incorp or i	ncorp > 1 wk.	April - Oct:	No incorp or ir	ncorp > 1 wk.	Surface app.	when frozen/s	now covered	
N Balanced Manure Rate (ton; gal/A)		11,616	gal/A		11,616	gal/A		5,813	gal/A		32	tons/A		32	tons/A		16	tons/A	
P Removal Balance Manure Rate		5,263	gal/A		5,263	gal/A		5,263	gal/A		8	tons/A		8	tons/A		8	tons/A	
(ton or gal/A; If required by P Index)	Crop P Re	moval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	Crop P Re	emoval (lb/A)	80.0	Crop P Re	moval (lb/A)	80.0	
P Index Value		54			54		·	55			49			49			64		
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		5,000	gal/A		10	tons/A		10	tons/A		10	tons/A	
Nutrients Applied at Planned Manure Rate						<b>J</b>			J										
(lb/A)	47	122	302	47	122	302	59	76	189	21	100	168	21	100	168	43	100	168	
Nutrient Balance after Manure	22	-42	-158	22	-42	-158	10	4	-45	48	-20	-24	48	-20	-24	26	-20	-24	
Supplemental Fertilizer (Ib/A)	22	U	0	22	U	0	10	0	0	48	0	0	48	0	0	26	U	U	
P Index Application Method	-			-			-	· .		-			-						
Final Nutrient Balance (Ib/A)	0	-42	-158	0	-42	-158	0	4	-45	0	-20	-24	0	-20	-24	0	-20	-24	
Multiple Application																			
Soil test or Crop Removal	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	lances for P20 on Crop Remo IOT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD No additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine	

#### **Phosphorus Index**

Go to NBS Input Go to NBS Index

	Pennsylvania P Inde	ex Version 2				· · · · · · · · · · · · · · · · · · ·
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	TOOL	CMU/Field ID	R18 Wheat Liquid Manure Winter
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	I Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant fai	rm management change as o	defined by Act 38?	If the answer is Yes to	No
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	n 3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	166
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dist	ance from this CMU to receive	ving water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field ?			Yes
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B vol	untarily? (Answers are No	to all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)		•	Mehlich 3 Soil Test P (p	pm P)		166
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						33
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	ethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	76
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	1
P SOURCE COEFFICIENT <sup>3</sup>	Ref	er to: Test results for P	Source Coefficient OR Boo	k values from P Index Fact Sheet	Table 1	0.8
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeff	cient				61
Source Factor Sum						94
PART B: TRANSPORT FACTORS			Soil Loss (ton/acre/	(r)		0.55
EROSION		1		•,		0.00
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	2
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance	·		·	7
MODIFIED CONNECTIVITY	50 ft. R APPLIES TO	0.85 parian Buffer D DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24						0.27
P Index Value = 2 x Source x Transport						51
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	op removal	Very High: 100 or greater No Phosphorus applied		·

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

#### **Phosphorus Index**

PART A: SCREENING TOOL CMU/Field ID	R18 Wheat Solid Manure	R19 Wheat Liquid Manure	R19 Wheat Liquid Manure	R19 Wheat Liquid Manure	R19 Wheat Solid Manure	R19 Wheat Solid Manure	R19 Wheat Solid Manure
Is the CMI Lin a Special Protection watershed?	No	Spring	No	No	Spring	Fail No	No
A significant farm management change as defined by Act 382	No	No	No	No	No	No	No
Soil Tost Moblich 2 B groater than 200 ppm P2	100	202	202	202	202	202	202
Contributing Distance from CML to receiving water (150 ft 2)	100	293	293	293	293	293	293
Lo winter manufa application planned for this field 2	NO	NO	NO	NO	NO	NO	NO
Is winter manure application planned for this field ?	Yes	NO	NO	Yes	NO	NO	Yes
Run P Index Part B voluntarily? (No to all Part A questions.)	NO	NO	NO	NO	NO	NO	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	166	293	293	293	293	293	293
Soil lest Rating = 0.20" Menlich 3 Soil lest P (ppm P)	33	59	59	59	59	59	59
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	-	0	0	0	-	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>					-		
SUPPLEMENTAL P FERTILIZER	0	0	0	0	0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-	-	-	-	-	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	100	122	122	76	100	100	100
MANURE APPLICATION METHOD <sup>3</sup>	1	0.6	0.6	1	0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	80	59	59	61	48	48	80
Source Factor Sum	113	118	118	120	107	107	139
PART B: TRANSPORT FACTORS EROSION	0.55	1.53	1.53	1.53	1.53	1.53	1.53
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	2	0	0	0	0	0	0
Transport Sum = Erosion + Runoff Potential + Subsurface	7	6	6	6	6	6	6
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.27	0.23	0.23	0.23	0.23	0.23	0.23
P Index Value = 2 x Source x Transport	62	54	54	55	49	49	64

Low: 59 or less

Nitrogen based management

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no correspondi

					Go to NBS Index	
User Notes for the Winter Manure Application Matrix						
<ol> <li>Under Act 38, any one of the following conditions me December 15 to February 28         <ul> <li>Frozen ground (4 inch depth)</li> <li>Snow-covered ground</li> </ul> </li> </ol>	eets the "winter" definitior	n - see §83.201.			Go to NBS Input	
<ul> <li>All setbacks including those specific to winter manual</li> <li>No winter manure application within 100 ft. of an ab</li> </ul>	re application must be foll pove ground agricultural d	owed - see §83.294 (f) a rainage inlet where surfa	nd (g). Ice flow is toward the inle	t.		
No winter manure application within 100 ft. of a wet Exceptional Value stream segment if surface flow is	tland (identified on Nation toward the wetland.	al Wetland Inventory Ma	ps) within the 100 year flo	oodplain of an		
3. Fields receiving winter manure applications must ha	ve 25% cover or an estab	blished cover crop - see §	§83.294 (g).			
Verify the CMU meets the required cover conditions described in User Note 3.						
CMU/Field ID				CMU/Field ID	R1_2 Corn Silage Liquid Manure Winter	R1_2 Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?		Does the Cl	MU have 25% cover or an	established cover crop?	Yes	Yes
Evaluation Criteria	Eva	aluation Criteria Descri	ptions and Ranking Val	ues		
Field Slope	4	3	2"	1°	2	2
	< 4 %	4 - 8%	9-15%	> 15%	3	3
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	> 350 ft.	350 - 200 ft	199 - 100 ft	<100 ft	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	Somewhat Excessively OR Excessively	Well OR Moderately Well	Somewhat Poorly	Poorly OR Very Poorly	3	3
Runoff Control	Recommended conservation practices are in place. <u>Very low potential</u> for concentrated flow.	Some conservation practices are in place. Low potential for concentrated flow.	Some conservation practices are in place. <u>Moderate potential</u> for concentrated flow.	No conservation practices are in place. <u>High potential</u> for concentrated flow.	4	4
<sup>a</sup> Includes Perennial and Intermittent streams with defined bed and	bank, Lakes, Ponds, Open sink	holes, and Active private and p	public water sources.	1	14	14
<sup>b</sup> If a field receives a rating of "2" in any two categories the field is n	ot recommended for winter app	lication regardless of the final	field Ranking Value.		Good	Good
" If a field receives a rating of "1" in any one category the field is not	t recommended for winter applie	cation regardless of the final fie	eld Ranking Value.			

Recommended Winter Manure Application		
Prioritization		
Ranking Value - Category	Ranking Category	Recommendation for Winter Manure Spreading Prioritization
Greater than 12 - Good	Good	These fields should receive first priority for winter manure application.
8 to 12 - Fair	Fair	These fields should receive second priority for winter manure application.
Less than 8 - Poor	Poor	These fields are not recommended for winter manure application.

User Notes for the Winter Manure Application Matrix 1. Under Act 38, any one of the following conditions me

<ul> <li>December 15 to February 28</li> <li>Frozen ground (4 inch depth)</li> <li>Snow-covered ground</li> </ul>						
<ul> <li>All setbacks including those specific to winter manure</li> <li>No winter manure application within 100 ft. of an about</li> </ul>	¢ (					
No winter manure application within 100 ft. of a wetl Exceptional Value stream segment if surface flow is to	; (					
3. Fields receiving winter manure applications must hav						
Verify the CMU meets the required cover conditions described in User Note 3.						
CMU/Field ID	R3 Corn Silage Liquid Manure Winter	R3 Corn Silage Solid Manure Winter	R4 Corn Silage Liquid Manure Winter	R4 Corn Silage Solid Manure Winter	R5B Corn Silage Liquid Manure Winter	R5B Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?	Yes	Yes	Yes	Yes	Yes	Yes
Evaluation Criteria						
Field Slope	4	4	3	3	3	3
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	4	4	4	4	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	3	3	3	3	3	3
Runoff Control	4	4	4	4	4	4
Includes Perennial and Intermittent streams with defined bed and b	15	15	14	14	14	14
' If a field receives a rating of "2" in any two categories the field is no	Good	Good	Good	Good	Good	Good

Recommended Winter Manure Application Prioritization
Ranking Value - Category
Greater than 12 - Good
8 to 12 - Fair
Less than 8 - Poor

User Notes for the Winter Manure Application Matrix 1. Under Act 38, any one of the following conditions me

December 15 to February 28     Frozen ground (4 inch depth)     Snow-covered ground						
<ol> <li>All setbacks including those specific to winter manur</li> <li>No winter manure application within 100 ft. of an ab</li> </ol>	¢ (					
• No winter manure application within 100 ft. of a wetl Exceptional Value stream segment if surface flow is t	i (					
3. Fields receiving winter manure applications must hav						
Verify the CMU meets the required cover conditions described in User Note 3.						
CMU/Field ID	R6 Corn Silage Liquid Manure Winter	R6 Corn Silage Solid Manure Winter	R7 Corn Silage Liquid Manure Winter	R7 Corn Silage Solid Manure Winter	R8 Corn Silage Liquid Manure Winter	R8 Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?	Yes	Yes	Yes	Yes	Yes	Yes
Evaluation Criteria						
Field Slope	2	2	2	2	3	3
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	4	4	4	4	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	3	3	3	3	3	3
Runoff Control	4	4	4	4	4	4
Includes Perennial and Intermittent streams with defined bed and b	13	13	13	13	14	14
If a field receives a rating of "2" in any two categories the field is no	Good	Good	Good	Good	Good	Good

Recommended Winter Manure App Prioritization	plication
Ranking Value - Categ	gory
Greater than 12 - Go	od
8 to 12 - Fair	
Less than 8 - Poor	

User Notes for the Winter Manure Application Matrix 1. Under Act 38, any one of the following conditions me

December 15 to February 28     Frozen ground (4 inch depth)     Snow-covered ground						
<ol> <li>All setbacks including those specific to winter manure</li> <li>No winter manure application within 100 ft. of an about</li> </ol>	¢ (					
• No winter manure application within 100 ft. of a wetl Exceptional Value stream segment if surface flow is to	i (					
3. Fields receiving winter manure applications must hav						
Verify the CMU meets the required cover conditions described in User Note 3.						
CMU/Field ID	R9 Corn Silage Liquid Manure Winter	R9 Corn Silage Solid Manure Winter	R10 Corn Silage Liquid Manure Winter	R10 Corn Silage Solid Manure Winter	R11 Corn Silage Liquid Manure Winter	R11 Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?	Yes	Yes	Yes	Yes	Yes	Yes
Evaluation Criteria						
Field Slope	2	2	2	2	2	2
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	4	4	4	4	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	3	3	3	3	3	3
Runoff Control	4	4	4	4	4	4
Includes Perennial and Intermittent streams with defined bed and b	13	13	13	13	13	13
If a field receives a rating of "2" in any two categories the field is no	Good	Good	Good	Good	Good	Good

Recommended Winter Manure Application Prioritization
Ranking Value - Category
Greater than 12 - Good
8 to 12 - Fair
Less than 8 - Poor

User Notes for the Winter Manure Application Matrix

<ol> <li>Under Act 38, any one of the following conditions me</li> <li>December 15 to February 28</li> <li>Frozen ground (4 inch depth)</li> <li>Snow-covered ground</li> </ol>	•					
<ol> <li>All setbacks including those specific to winter manur</li> <li>No winter manure application within 100 ft. of an ab</li> </ol>	(					
<ul> <li>No winter manure application within 100 ft. of a wetl Exceptional Value stream segment if surface flow is t</li> </ul>	;; α					
3. Fields receiving winter manure applications must have	<u>u</u>					
Verify the CMU meets the required cover conditions described in User Note 3.						
CMU/Field ID	R12 Corn Silage Liquid Manure Winter	R12 Corn Silage Solid Manure Winter	R13 Corn Silage Liquid Manure Winter	R13 Corn Silage Solid Manure Winter	R14 Corn Silage Liquid Manure Winter	R14 Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?	Yes	Yes	Yes	Yes	Yes	Yes
Evaluation Criteria						
Field Slope	2	2	2	2	2	2
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	4	4	4	4	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	3	3	3	3	3	3
Runoff Control	4	4	4	4	4	4
<sup>a</sup> Includes Perennial and Intermittent streams with defined bed and t	13	13	13	13	13	13
<sup>b</sup> If a field receives a rating of "2" in any two categories the field is no	Good	Good	Good	Good	Good	Good

Recommended Winter Manure App Prioritization	plication
Ranking Value - Categ	gory
Greater than 12 - Go	od
8 to 12 - Fair	
Less than 8 - Poor	

User Notes for the Winter Manure Application Matrix

<ol> <li>Under Act 38, any one of the following conditions me</li> <li>December 15 to February 28</li> <li>Frozen ground (4 inch depth)</li> <li>Snow-covered ground</li> </ol>	- e					
<ol> <li>All setbacks including those specific to winter manur</li> <li>No winter manure application within 100 ft. of an ab</li> </ol>	re 00					
No winter manure application within 100 ft. of a wet Exceptional Value stream segment if surface flow is	il: te					
3. Fields receiving winter manure applications must ha	<u>N</u>					
Verify the CMU meets the required cover conditions described in User Note 3.						
CMU/Field ID	R15 Corn Silage Liquid Manure Winter	R15 Corn Silage Solid Manure Winter	R16 Corn Silage Liquid Manure Winter	R16 Corn Silage Solid Manure Winter	R17 Corn Silage Liquid Manure Winter	R17 Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?	Yes	Yes	Yes	Yes	Yes	Yes
Evaluation Criteria						
Field Slope	2	2	2	2	2	2
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	4	4	4	4	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	3	3	3	3	3	3
Runoff Control	4	4	4	4	4	4
<sup>a</sup> Includes Perennial and Intermittent streams with defined bed and	t 13	13	13	13	13	13
<sup>b</sup> If a field receives a rating of "2" in any two categories the field is not	Good	Good	Good	Good	Good	Good

Recommended W Prioritization	Vinter Manure Application
Rar	nking Value - Category
Gr	eater than 12 - Good
	8 to 12 - Fair
	Less than 8 - Poor

					Go to NBS Index	
Jser Notes for the Winter Manure Application Matrix 1. Under Act 38, any one of the following conditions me • December 15 to February 28 • Frozen ground (4 inch depth) • Snow-covered ground	eets the "winter" definition	- see §83.201.			Go to NBS Input	
<ul> <li>2. All setbacks including those specific to winter manual</li> <li>No winter manure application within 100 ft. of an at</li> <li>No winter manure application within 100 ft. of a weight of the set of t</li></ul>	re application must be foll bove ground agricultural d tland (identified on Nation	owed - see §83.294 (f) a rainage inlet where surfa al Wetland Inventory Ma	nd (g). ice flow is toward the inle ps) within the 100 year flo	t. podplain of an		
Exceptional Value stream segment if surface flow is	toward the wetland.					
3. Fields receiving winter manure applications must ha	ave 25% cover or an estab	lished cover crop - see §	§83.294 (g).		J	
described in User Note 3.						
CMU/Field ID				CMU/Field ID	R18 Corn Silage Liquid Manure Winter	R18 Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?		Does the CMU have 25% cover or an established cover crop?				Yes
Evaluation Criteria	Eva	Evaluation Criteria Descriptions and Ranking Values				
Field Slope	4	<u> </u>	9 - 15%	> 15%	3	3
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	> 350 ft.	350 - 200 ft	199 - 100 ft	<100 ft	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	Somewhat Excessively OR Excessively	Well OR Moderately Well	Somewhat Poorly	Poorly OR Very Poorly	3	3
Runoff Control	Recommended conservation practices are in place. <u>Verv low potential</u> for concentrated flow.	Some conservation practices are in place. Low potential for concentrated flow.	Some conservation practices are in place. <u>Moderate potential</u> for concentrated flow.	No conservation practices are in place. <u>High potential</u> for concentrated flow.	4	4
	1		I		14	14
<sup>a</sup> Includes Perennial and Intermittent streams with defined bed and	bank, Lakes, Ponds, Open sink	holes, and Active private and i	public water sources.		14	14

Recommended Winter Manure Application		
Prioritization		
Ranking Value - Category	Ranking Category	Recommendation for Winter Manure Spreading Prioritization
Greater than 12 - Good	Good	These fields should receive first priority for winter manure application.
8 to 12 - Fair	Fair	These fields should receive second priority for winter manure application.
Less than 8 - Poor	Poor	These fields are not recommended for winter manure application.

#### User Notes for the Winter Manure Application Matrix

- 1. Under Act 38, any one of the following conditions me
- December 15 to February 28
- Frozen ground (4 inch depth)
- Snow-covered ground
- 2. All setbacks including those specific to winter manure
- No winter manure application within 100 ft. of an abc
- No winter manure application within 100 ft. of a wetli Exceptional Value stream segment if surface flow is to
- 3. Fields receiving winter manure applications must hav

Verify the CMU meets the required cover conditions

d	escri	bed	in L	lser	Note	3.

CMU/Field ID	R19 Corn Silage Liquid Manure Winter	R19 Corn Silage Solid Manure Winter
Does the CMU have 25% cover or an established cover crop?	Yes	Yes
Evaluation Criteria		
Field Slope	2	2
Distance from Water Bodies <sup>a</sup> Determined using Phosphorus Index Contributing Distance	4	4
Drainage Class Determined using Phosphorus Index Runoff Potential	3	3
Runoff Control	4	4
<sup>a</sup> Includes Perennial and Intermittent streams with defined bed and	13	13
<sup>b</sup> If a field receives a rating of "2" in any two categories the field is needed.	Good	Good

Recommended Winter Manure Application Prioritization			
Ranking Value - Category			
Greater than 12 - Good			
8 to 12 - Fair			
Less than 8 - Poor			

#### Manure Group Information

Appendix 3 Manure Group Information	Liquid Cattle Manure	Solid Cattle Manure
Manure Report Date (note if averaging several reports)	ure Report Date averaging several July 9, 2018 reports)	
Laboratory Name	atory Name Waypoint Analytical	
Manure Type	Dairy	Dairy
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/ton
Total Nitrogen (N) (lbs/ton or 1000 gal)	29.68	10.67
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	15.71	5.40
Total Organic N (lbs/ton or 1000 gal)	13.97	5.27
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	15.20	10.02
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	37.70	16.82
Percent Solids	5.28	30.70
PSC Value (analytical or book value)	0.80	0.80

#### Appendix 1 Operation Maps

Maps (or aerial photographs) required in Nutrient Balance Sheets must identify: road and road names adjacent to and within the operation; field identification, boundaries and acreage; manure application setback areas and vegetated buffers and associated landscape features (streams and other water bodies, sinkholes, and active water wells or springs); and location of in-field manure stacking areas (including each site in stacking area rotation).

# Gary Truckenmiller NBS Field Map



\*\*Field verification of application setbacks and buffers is required prior to land application of manure.\*\*

# Appendix 9 Operation Maps

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Topographic Map and Soils Map** must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary.

# John Rishel Topographic Map



# John Rishel Soils Map



ALLENWOOD GRAVELLY SILT LOAM, 0 TO 3 PERCENT SLOPES AnA ALLENWOOD GRAVELLY SILT LOAM, 15 TO 25 PERCENT SLOPES AnD ALLENWOOD AND WASHINGTON SOILS, 3 TO 8 PERCENT SLOPES AoB AoC ALLENWOOD AND WASHINGTON SOILS, 8 TO 15 PERCENT SLOPES ALVIRA SILT LOAM, 0 TO 3 PERCENT SLOPES ArA ArB ALVIRA SILT LOAM, 3 TO 8 PERCENT SLOPES ALVIRA SILT LOAM, 8 TO 15 PERCENT SLOPES ArC ALVIRA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES AsB Ba BARBOUR SOILS, FREQUENTLY FLOODED BARBOUR-LINDEN COMPLEX, RARELY FLOODED Bb Bc BASHER SOILS BASHER SOILS, FREQUENTLY FLOODED Bd BeB BEDINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES BEDINGTON SILT LOAM, 8 TO 15 PERCENT SLOPES BeC BEDINGTON SILT LOAM, 15 TO 25 PERCENT SLOPES BeD BkB BERKS SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES BERKS SHALY SILT LOAM, 8 TO 15 PERCENT SLOPES BkC BkD BERKS SHALY SILT LOAM, 15 TO 25 PERCENT SLOPES BUCHANAN GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES BuB BuC **BUCHANAN GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES** BUCHANAN VERY STONY LOAM, 0 TO 8 PERCENT SLOPES BxB BUCHANAN VERY STONY LOAM, 8 TO 25 PERCENT SLOPES BxD CaB CALVIN-KLINESVILLE SHALY SILT LOAMS, 3 TO 8 PERCENT SLOPES CALVIN-KLINESVILLE SHALY SILT LOAMS, 8 TO 15 PERCENT SLOPES CaC CaD CALVIN-KLINESVILLE SHALY SILT LOAMS, 15 TO 25 PERCENT SLOPES DAM DAMS DeB DEKALB EXTREMELY STONY SANDY LOAM, 0 TO 8 PERCENT SLOPES DEKALB EXTREMELY STONY SANDY LOAM, 8 TO 25 PERCENT SLOPES DeD DeF DEKALB EXTREMELY STONY SANDY LOAM, STEEP DUMPS, MINE Du Dv DYSTROCHREPTS, BOULDERY EDOM COMPLEX, 3 TO 8 PERCENT SLOPES EdB EdC EDOM COMPLEX, 8 TO 15 PERCENT SLOPES EdD EDOM COMPLEX, 15 TO 25 PERCENT SLOPES ELLIBER CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES EsB ELLIBER CHERTY SILT LOAM, 8 TO 15 PERCENT SLOPES EsC ELLIBER CHERTY SILT LOAM, 15 TO 25 PERCENT SLOPES EsD ELLIBER VERY CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES EtB ELLIBER VERY CHERTY SILT LOAM, 8 TO 15 PERCENT SLOPES EtC ELLIBER VERY CHERTY SILT LOAM, 15 TO 25 PERCENT SLOPES EtD EtF ELLIBER VERY CHERTY SILT LOAM, 25 TO 70 PERCENT SLOPES EVENDALE CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES EvB HaB HAGERSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES HAGERSTOWN SILT LOAM, 8 TO 15 PERCENT SLOPES HaC HaD HAGERSTOWN SILT LOAM, 15 TO 25 PERCENT SLOPES HtB HARTLETON CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES HtC HARTLETON CHANNERY SILT LOAM, 8 TO 15 PERCENT HtD HARTLETON CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES

ALBRIGHTS SILT LOAM, 3 TO 8 PERCENT SLOPES

AbB

- HuB HAZLETON AND CLYMER EXTREMELY STONY SANDY LOAMS, 0 TO 8 PERCENT SLOPES
- HAZLETON AND CLYMER EXTREMELY STONY SANDY LOAMS, 8 TO 25 PERCENT SLOPES HuD
- HAZLETON AND CLYMER EXTREMELY STONY SANDY LOAMS, 25 TO 80 PERCENT SLOPES HuF

- HOLLY SILT LOAM Hv Hv HOLLY SILT LOAM, PONDED Hz HOLLY SILT LOAM, RARELY FLOODED KREAMER CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES KmB KmC KREAMER CHERTY SILT LOAM, 8 TO 15 PERCENT SLOPES LAIDIG GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES LaB LAIDIG GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES LaC LAIDIG EXTREMELY STONY LOAM, 0 TO 8 PERCENT SLOPES LbB LdD LAIDIG AND MECKESVILLE EXTREMELY STONY SOILS, 8 TO 25 PERCENT SLOPES LdF LAIDIG AND MECKESVILLE EXTREMELY STONY SOILS, STEEP LAKIN LOAMY FINE SAND, 3 TO 8 PERCENT SLOPES LkB LkC LAKIN LOAMY FINE SAND, 8 TO 15 PERCENT SLOPES LECK KILL SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES LnB LnC LECK KILL SHALY SILT LOAM, 8 TO 15 PERCENT SLOPES LECK KILL SHALY SILT LOAM, 15 TO 25 PERCENT SLOPES LnD LINDEN SILT LOAM Lw MkB MECKESVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES MkC MECKESVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES MkD MECKESVILLE SILT LOAM, 15 TO 25 PERCENT SLOPES MONONGAHELA SILT LOAM, 0 TO 3 PERCENT SLOPES MoA MoB MONONGAHELA SILT LOAM, 3 TO 8 PERCENT SLOPES OPEQUON SILTY CLAY LOAM, 3 TO 8 PERCENT SLOPES OpB OPEQUON SILTY CLAY LOAM, 8 TO 25 PERCENT SLOPES OpD OpE OPEQUON SILTY CLAY LOAM, 25 TO 50 PERCENT SLOPES PITS Pa Ou QUARRIES RwB RUSHTOWN VERY SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES RwC RUSHTOWN VERY SHALY SILT LOAM, 8 TO 25 PERCENT SLOPES SHELMADINE SILT LOAM, 0 TO 3 PERCENT SLOPES ShA ShB SHELMADINE SILT LOAM, 3 TO 8 PERCENT SLOPES SmB SHELMADINE VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES Uf UDIFLUVENTS, COAL OVERWASH UDIFLUVENTS AND FLUVAQUENTS, GRAVELLY Ug UDORTHENTS, SANDSTONE AND SHALE Uh UnB UNADILLA SILT LOAM, 3 TO 8 PERCENT SLOPES UNADILLA SILT LOAM, 8 TO 15 PERCENT SLOPES UnC UnD UNADILLA SILT LOAM, 15 TO 25 PERCENT SLOPES URBAN LAND Ur W WATER WaB WASHINGTON SILT LOAM, WET SUBSTRATUM, 3 TO 8 PERCENT SLOPES WATSON SILT LOAM, 0 TO 3 PERCENT SLOPES WbA WbB WATSON SILT LOAM, 3 TO 8 PERCENT SLOPES WbC WATSON SILT LOAM, 8 TO 15 PERCENT SLOPES WeB WEIKERT SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES WEIKERT SHALY SILT LOAM, 8 TO 15 PERCENT SLOPES WeC WeD WEIKERT SHALY SILT LOAM, 15 TO 25 PERCENT SLOPES WkE
- WEIKERT AND KLINESVILLE SHALY SILT LOAMS, STEEP
- WsA WHEELING SOILS, 0 TO 3 PERCENT SLOPES
- WsB WHEELING SOILS, 3 TO 8 PERCENT SLOPES
- WsC WHEELING SOILS, 8 TO 15 PERCENT SLOPES
- WYOMING GRAVELLY SANDY LOAM, 0 TO 3 PERCENT SLOPES WvA
- WYOMING GRAVELLY SANDY LOAM, 3 TO 8 PERCENT SLOPES WvB

# Appendix 10 Crop Years 2019 Supporting Information & Documentation

Includes if applicable the Rainfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates.

# Growing Animal Weight Calculator

			Calculated average weight based on production age range	
3 Months	5	Months	310.00	lbs.
5 Months	8	Months	448.00	lbs.
8 Months	12	Months	640.00	lbs.
12 Months	17	Months	854.00	lbs.
17 Months	23	Months	1083.00	lbs.
	3 Months       5 Months       8 Months       12 Months       17 Months	3 Months     5       5 Months     8       8 Months     12       12 Months     17       17 Months     23	3 Months     5 Months       5 Months     8 Months       12 Months     12 Months       17 Months     23 Months	3 Months     5 Months     3 10.00       5 Months     8 Months     448.00       8 Months     12 Months     640.00       12 Months     17 Months     854.00       17 Months     23 Months     1083.00

## **Emergency Response Plan**

If an emergency spill or leak should occur you need to take the following actions:

#### 1) Ensure that you and other people are safe. If the spill or leak involves a public road:

- a. Contact the police for traffic control: State Police 911
- b. Use flares, safety cones, etc. to warn approaching motorists

#### 2) Stop the leak or spill:

a. If the leak or spill occurs while emptying the storage:

i. Stop pumps, close valves and / or stop siphoning of manure

ii. Park on top of the flexible piping to pinch it closed

iii. If necessary, direct manure to another storage structure

iv. Plug holes in the impoundment, build dams to capture the leak and either pump the manure back into the storage or spread it on crop fields according to your nutrient management plan

b. If the spill happens while on the road:

i. Pull off to the side of the road

- ii. Plug the leak or otherwise stop the flow of manure from the tank
- iii. Build a berm or dike to keep manure from flowing into streams, ditches, etc.
- iv. Call the police for traffic control: State Police 911

#### 3) Contain and control the leak or spill:

a. Build a containment dam to capture the manure using soil, gravel, hay bales, etc. Provide an area for the impounded manure to run into and be temporarily stored. Limit the area in contact with manure. Local individuals with excavation and manure hauling equipment are:

- i. Metzler Ag Service 570-524-0205
- ii. Gutelius Excavating 570-966-3727

b. Prevent manure from running into streams, ditches, waterways, etc.

c. Use absorbent materials such as straw, hay, sawdust, animal feed or soil to soak up the manure and to limit or stop manure flow.

d. Check for contaminated subsurface tile lines and divert manure flow from inlet structures

#### 4) Notify the proper authorities:

Pennsylvania Department of Environmental Protection Emergency Response – 570-327-3636 Northumberland County Conservation District – 570-495-4665 PA Fish & Boat Commission Southeast Regional Office – 814-359-5250 TeamAg, Inc. Nutrient Management Specialist – 570-764-7003

a. Make a record of the details of the spill and the actions you took to remedy the situation. Take pictures of the extent of the spill as well as your containment and cleanup practices.

b. If a spill enters a sinkhole or otherwise has the potential to enter groundwater, notify adjacent landowners who use private wells for their water supply.

#### 5) Clean up the leak or spill:

a. Clean up procedures may be directed by the authorities listed above.

b. Pick up absorbent materials you used and properly dispose of the material.

c. Restore damaged areas if necessary.





#### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

**DATE:** September 13, 2018

- TO: Members State Conservation Commission
- FROM: Larry G Baum State Conservation Commission
- SUBJECT: Nutrient Management Plan Review Orlin Martin, Northumberland County, Pennsylvania

#### **Action Requested**

Action on a Nutrient Management Plan for the following operation in Northumberland County:

Orlin Martin 215 Balliet Road Muncy, PA 17756

#### **Background**

I have completed the required review of the subject nutrient management plan listed above. Final corrections to the plan were received at the State Conservation Commission September 13, 2018. As of that date, the plan was considered to be in its final form. The operation, located in Northumberland County, is considered to be a Concentrated Animal Operation (CAO) under the PA Nutrient and Odor Management Act (Act 38 of 2005). The Commission is the proper authority to take action on this plan, because Northumberland County Conservation District is not delegated plan review and action responsibilities under the Act 38 program.

A brief description of the operation, concluding the staff recommendation, is attached. Also attached is a copy of the complete nutrient management plan for the operation.

Thank you for considering this plan for Commission action.

#### **Farm Descriptions**

**Orlin Martin NMP, Northumberland County** – The Orlin Martin agricultural operation is a broiler operation with pleasure horses. The operation consists of a total of 15.79 acres of which 3.99 acres' pasture and 11.8 acres' headquarters. There are three broiler houses containing 30,000 birds each and three pleasure horses. Six flocks are finished per barn per year with each flock being housed for 6-7 weeks. All broiler manure is exported to a manure broker at time of cleanout. Also on the operation are a maximum of three pleasure horses on 3.99 acres of pasture with a run-in shed. The horses are fed and watered in the shed.

Broiler mortalities are composted on a corner of a concrete pad behind the middle broiler house. The small quantity of mortality compost (approximately 5 ton is exported to a neighbor for application to cropland. At the current time the horse manure is cleaned from the shed by hand and applied to the pasture.

In the near future, a neighbor will apply both horse and poultry manure to the pasture to increase fertility. Phosphorous soil test levels are very low for the pasture.

There is no crop fields or crop acres on this operation.

The combined animal equivalent units on the Orlin Martin operation is 223.89. There are 3.99 crop production acres associated to the Orlin Martin operation. The animal equivalent units per acre for Orlin Martin operation are 56.11, classifying this operation as a concentrated animal operation under Act 38 of 2005.

The proposed NMP for Orlin Martin indicates no BMPs need to be implemented,

Based on my review, the NMP amendment developed for Orlin Martin, operation meets the requirements of the PA Nutrient and Odor Management Act and Regulations, and I therefore recommend Commission approval.

### **NON-FINAL FORM** Nutrient Management Plan Version \_

This NMP may be revised prior to a formal action by the Conservation District Board. The final form of the plan will be available at least 7 days prior to Board action. You may contact the Conservation District to determine the current status of the NMP 8

For Crop Year(s) 2019-2021

NON-FINAL FULLI

This NMP may be revised prior to a formal action by the Conservation District Board. The final form of the plan will be available at least 7 days prior to Board action. You may contact the Conservation District to 
 Prepared For
 determine the current status of the NMP

 Day and Year
 Operator's Name, Mailing Address, Telephone Number(s)
 9/10/2018

 Orlin Martin
 Month, Day and Year

215 Balliet Rd Muncy, PA 17756 570-777-3704

**Operation's Location Address (If different than above)** 

**FINAL FORM** 

This version of the plan will be considered for action by the Conservation District Board at their November 13, 2018 meeting

Site Name (CAFOs)

9/13/18 MONTH, DAY AND YEAR

Prepared By Nutrient Management Specialist's Name, Address, Telephone Number(s) Josh Keister

245 Walnut St. Milton PA 17847

570-898-1466 Nutrient Management Specialist's Program Certification Number **NMC 965** 

#### Administratively Complete Date

8/27/2018

**Plan Approval Date** 

#### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)

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Nutrient Management Plan Summary (Excel)

Nutrient Management Plan Summary Notes (Excel)

Manure Spreader Calibration Notes (Excel)

Additional Nutrient Management Plan Requirements (Word)

**Operator Management Map (Mapping Program)** 

Appendix 1: Nutrient Management Plan Agreement & Responsibilities (Word)

Appendix 2: Operation Information (Word)

Appendix 3: Manure Group Information (Excel)

Appendix 4: Crop & Manure Management Information (Excel)

Appendix 5: Phosphorus Index (Excel)

Appendix 6: Manure Management (Word)

Appendix 7: Stormwater Control (Word)

Appendix 8: Importer/Broker Agreements & Nutrient Balance Sheets (Word & Excel)

Appendix 9: Operation Maps (Mapping Program)

Topographic Map

Soils Map

Appendix 10: Supporting Information & Documentation (Excel) (List below the required documents included in the plan.)

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**Operation Acres:** Whole Farm Note: Total acres reported in NMP Summary: Horse Pasture Horse Pasture CMU/Field ID Total Acres: 15.79 Animal Equivalent Units: 223.89 Acres 3.99 3.99 field. manure can be determined from the 'Net Nutrients Required' for that field. The fertilizer required on any part of the field that does not receive If manure runs out for any field, consult Appendix 4 of the plan for that Established Established Established Pasture (without legume) legume) Pasture (without Crop Total Acres Available For Nutrient Application Under Operator's Control: Owned: 3.99 horses -Uncollected Manure Horses Group 4.0 Application Season Grazing Spring Grazing anytime with nutrient uptake during Incorporation after 7 summer utilzation-Spring: Spring or Spring: Spring or growing season days or none Management Application Animal Equivalent Units Per Acre: 56.11 **Planned Manure** Grazing Notes Rate<sup>1</sup> 2 tons/A 0 z 0 Fertilizer (Ib/A) Starter/Other P2O3 ¢ o Ň 0 o Z Fertilizer (Ib/A) Supplemental Crop Year(s) 2019-2021 P205 Rented: 0 <u>,</u> No **Nutrient Balance** Z (lb/A)<sup>2</sup> P205 720 20

**Nutrient Management Plan Summary** 

<sup>1</sup> See rate calibration table (Nutrient Management Ptan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit: Negative numbers = nutrient excess

Horse Pasture

3.99

Pasture

Broilers

Spring

Incorporation after 7

days or none

summer utilization-

3 tons/A

0

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80

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(without legume)

Version 6.1 - December 2017 NMP Summary Page - 1

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). Horse Pasture Horse Pasture Horse Pasture CMU/Field ID Ether mortality compost or poultry litter will be applied to the pasture to meet nutrient requirements. three horses on pasture for 18 hours per day for 365 days per year. Feed and water is provided at the barn. Notes . Crop Years 2019-2021

NMP Summary Notes

<sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.1 - December 2017 NMP Summary Notes Page - 1

Manure Spreader Calibration Page - 1

Version 6.1 - December 2017

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# Manure Spreader Calibration Notes

	-	-		Crop Years 2019-2021
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
2.33 Va	Application by hand	no manure is mechanically applied on the operation		
3 Va	to be determined	spreader will be calibrated	before use on the pasture	

# **Additional Nutrient Management Plan Requirements**

#### Manure Management and Stormwater BMP Implementation Summary

Best Management Practice	NRCS Practice Code <sup>1</sup>	BMP Location	Implementation Season & Year
None			
01011111 DA1681/00 D166-4-51 00-4-2 - 4 B 4-44			
			······································
// - //////////////////////////			
		auge 100 14 4 august 10 - 1 - 1 - 1	

1 If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank.

#### **In-Field Manure Stacking Procedures**

Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles.

No manure is stacked in the field on the operation.

#### **Additional CAFO Requirements**

In-field stacking criteria, winter storage requirements, and other issues identified by DEP's review of the nutrient management plan.

N/A

#### **Proposed Manure Storage Description**

Type, dimensions, volume, freeboard and location on map.

No storages are proposed on the operation

#### **Description of Planned Alternative Manure Technology Practices**

Type of practice, volume of manure addressed, and result of practice.

None at this time.

#### Exported Manure Summary

Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan.

Poultry manure is exported to manure broker Kendall Martin at the time of cleanout. A neighbor receives a small quantity of the mortality compost (5 tons) for crop land application.
#### **Operator Management Map**

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The Operator Management Map is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9.

## **Orlin Martin Operation**



## **Orlin Martin Operation**



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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Аљ	Alvira sill loam, 3 to 8 percent slopes	0.9	7.2%
АгС	Alvira silt loam, 8 to 15 parcent slopes	0.0	0.1%
Sh8	Shelmadine sill loam, 3 to 8 percent slopes	0.1	0.5%
WbA	Watson silt loam, 0 to 3 percent slopes	9.9	76.1%
WbB	Watson silt loam, 3 to 8 percent slopes		16.1%
Totals for Area of Interest	(1) *	13.0	108.0%

## **Map Unit Legend**

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Soil Map—Northumberland County, Pennsylvania (Ortin Martin)

ârea of în				
	terest (AOI)	III	Spoll Arca	The soil surveys that comprise your AOI were mapped at
	Area of interest (AOI)	( * )	Story Spot	1:20,000.
Solls	Soit Mart Holt Dolution	8	Very Starry Spol	Warning: Soil Map may not be valid at this scale.
]		4.2	Wet Spot	Enlargement of maps beyond the scale of mapping can cause
}	Soil Map Unit Lines	× 4	Other	misunderstanding of the detail of mapping and accuracy of so the phonenes, The mass do not show the small accord of
۵	Soil Map Unil Points	ינ		contrasting soils that could have been shown at a more detail
Special	Point Features			scale.
Э	Blowout	Woter Fe	eatures	
<u>5</u> 3	Borrow Pit	I		risase ley un ure usi scare oli each intep succi foi intep measurements.
×	Clay Spot	odsuci)	rtation Rails	Source of Map: Natural Resources Conservation Service
\$	Closed Depression	in the second	Interctate Highways	Web Soil Survey URL: Coordinate Svstem: Web Mercator (EPSG:3857)
Şζ	Gravel PR		US Routes	Maps from the Web Soli Survey are based on the Web Merra
•;	Gravelly Spot		Major Roads	projection, which preserves direction and shape but distorts
<i>(</i> )	Landill		cocal Reads	distance and area. A projection that preserves area, such as t Albers equal-area conic projection, should be used if more
- 5	Lava Flow	Backgro	und	accurate calculations of distance or area are required.
	Marsh or swamp		Acrial Photography	This product is generated from the USDA-NRCS certified data of the version datated balow
{{(	Mine or Quarry			Cold Current Areas - Modeline badanad Current, Darana Areas
0	Misceltaneous Waler			Survey Area Data: Volumentaria County, remissivana Survey Area Data: Version 10, Oct 4, 2017
0	Perennial Water			Soil map units are labeled (as space allows) for map scales
Ņ	Rock Outcrop			1:50,000 or larger.
	Saline Spot			Date(s) aerial Images were photographed: May 25, 2010 11, 2016
* * *	Sandy Spot			The orthonholo or other base man on which the soil lines wer
ąÌ	Severaly Eroded Spot			compiled and digitized probably differs from the background
ŝ	Sinkhola			imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
ŝ	Slide cr Slip			
ધ્ય	Sodic Spot			



### Appendix 1 Nutrient Management Plan Agreement & Responsibilities

Plan Implementation Requirements
This nutrient management plan has been developed to meet the requirements of the following
programs:
x Pennsylvania Act 38 of 2005 x CAO VAO (check one)
Pennsylvania CAFO (Concentráted Animal Feeding Operation) program Other program:
Plans developed under these programs are required to be implemented as approved in order to maintain compliance with the specific law or program. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions; installation of listed BMPs within implementation timeframes; and record keeping obligations of the program.
The nutrient management plan has been developed as a: (check one)
1-Year Plan for Crop Year (annual updates will be completed)
x 3-Year Plan for Crop Years 2019-2021
<ol> <li>Annual crop yields</li> <li>Manure and fertilizer application rates, locations and date of application</li> <li>Manure production figures for the various manure groups listed in your plan</li> <li>Soil test reports (testing required every 3 years per crop management unit)</li> <li>Manure test reports (testing required once a year for each manure group)</li> <li>Number of animals on pasture, number of days on pasture, and hours per day on pasture</li> <li>For operations exporting manure, Manure Export Sheets</li> <li>BMP designs and certification for new liquid and semi-solid manure storage facilities</li> <li>The following has been confirmed:</li> <li>x Verification of Ag E&amp;S Plan</li> </ol>
x Verification of Existing Site Specific Emergency Response Plan
Verification that owners of rented/leased lands have been notified that a nutrient management plan has been developed which calls for manure to be applied to their lands and that they have no objections to the plan requirements.           Owners Notified         x           No Rented/Leased Lands
Specialist Signature
I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the program(s) indicated above; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

Specialist Signature	for the
Date	\$\[\] 18

**2**4440

#### **Operator Signature**

I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

**Operator Signature** 

**Operator Title** 

Date

- Osener -----

### Appendix 2 Operation Information

#### **Operation Description**

Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management, including atypical manure (contributing animal groups, collection, storage and handling procedures); mortality composting management.

Orlin Martin owns and operates a broller operation in Muncy PA. The operation consists of three broller finishing buildings containing 30,000 brollers apiece. Six flocks are finished per barn per year with each flock being in for 6-7 weeks. All manure from the birds is exported to a manure broker at the time of cleanout. Also on the operation are three pleasure horses on 3.99 acres of pasture. Manure from the horses is applied to the pasture as a solid. No other fields are present on the operation. A total of 15.79 acres is owned with 3.99 being permanent pasture and the remaining 11.8 acres being buildings and yard surrounding the house and barn.

Broiler mortalities are composted on the corner of a concrete pad located behind the middle broiler building. Compost is exported as needed. At the current time, horse manure is cleaned from the barn by hand and applied to the pasture by hand. In the near future a neighbor will apply both horse and poultry manure to the pasture to increase fertility. A small quantity of mortality compost (roughly 5 tons) is received by a neighbor for application to crop land.

#### County(s)

Northumberland

#### Name of Receiving Stream(s)/Watershed(s)

Unnamed tributary to Warrior Run

#### **Notation of Special Protection Waters**

None

#### **Operation Acres**

Total Acres: 15.79

**Total Acres Available for Nutrient Application Under Operator's Control** 

Owned: 3.99

Rented: 0

#### Names & Addresses of Owners of Rented or Leased Land

N/a

#### **Existing Manure Storages & Capacity**

Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures.

Horse manure is collected in the barn when horses seek shelter. A small amount of bedding is utilized, mainly waste hay. Manure is removed as needed to keep area clean.

#### **Manure Application Equipment Capacity & Practical Application Rates**

Description of application equipment, practical application rates based on calibration and calibration method used, the data recorded during equipment calibration is to be retained on the farm. If applicable, name and Act 49 certification number of custom applicator.

At the time of plan submittal, the collected horse manure is applied to the pasture by hand due to low volume and the lack of a manure spreader. In the future, due to lack of nutrients present in the pasture a manure spreader will be rented and both poultry and horse manure applied to the pasture. Type of rental spreader is not known at this time.

Annual a Unmun Danier				
artomation Crop Yrs. 2019-2021	Broil	472	Horse	8
Manure Roport Date (note if averaging several reports)	August 17, 2018		Book Vatua	
Laboratory Name	Porm State		Parat State	
Малита Туро	Poutry		Qther	, ,
Manura Unit (literton or 1000 gal)	1b/torr		lpilon	,
Total Närogen (N) (Balton or 1000 gal)	39,40		12.00	
Ammonium N (NH <sub>4</sub> -N) (Ibaiton or 1000 gal)	11.18	ł	0	,
Total Organic N (lbalton or 1000 gal)	28.24	Carbany Prats	12.00	
Total Phosphate (P <sub>2</sub> O <sub>2</sub> ) (Ibarlon or 1000 gal)	27,71	to a America Lind	5.8	, 
Total Potash (K <sub>2</sub> O) (Ibation or 1000 gal)	31.28	Canal Manual Analoga	8,00	. ,
Percent Solida	52,00	Granuckinen	20.00	
PSC Value (analytical of book value)	1.00	1	0.60	
Percent Moisture	48,00	<b>.</b>	80,00	
Menure Group AEU's	220.59		3.30	
Description: Site & Sector Applied	Manure generated by broiters	Year long	Manure generated by horses	Year long
Inventory Mathod	Records		Calculated	
	Collected Calc.	Uncollected Cale,	Collected Calc.	Uncollected Calc.
Manure Group Identification	Brokers		Hortes	Horses - uncollocied
CALCULATED: Total Manure Collected Per Manure Group			° 8,3	24.8
Units			Tons	Tons
RECORDS: Total Manuna	1,000.0			
Unit	lons			
1	Collected	Uncollected	Collected	Uncollected
Banura Used On-Fam	120	ç	L'a	24,8
Units	Tons		Tons	Tons
Manure Exported Units	1,000.0 Ions	<u> </u>	0,0	
Manure Allocation Balance	-120	0.0	Q.Q	0.0
Unita	Tons		Tons	Tons
Narvine Balance as a Percent of Total Manuro Collected	-1.2%		-0.2%	
Total Rainfall and Runoz	ton: C		0 D	
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Appendix 3
Manure
Group
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Version 6.1 - December 2017

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Appendix 3 Manure Group Information Grop Yrs. 2019-2021	Brolie	â	Horso	3
	hianure Generation per Animal Group	Uncollected Manure: Nutriant Analysis Book Valves	Manure Generation per Animal Group	Uncollected Manure: Nutriené Analysis Elook Values
Animal Group 1	brailora		horses	horses - uncollected
Animal Type	Broker, large: 0-53 days		Ught Horse Mature	Total Närogen (N) Seuton
Ardmal Number	000,06	(Billio) Harrison	ų	12,00
Animal Waight	3.55		1100	Total Photphate (P2O5) Ibelian
Animal Group AUs	319,50		3,30	5.00
Animal Group AEUs	220.59		3,30	Total Potesh (K2O) Ibstion
Au Au	20.0		55.0	8,00
Total Days Manure Produced	252		3965	PSC Value
Total Manum Produced			ម	0.20
Days On Pasture	σ		385	
Hours Per Day On Pasture	o		18	
Total Bodding			-4	inerstered
Total Washwater			o	
CALCULATED - Tetal Uncollected Manure Per Animal Group			24.8	25 - Tona
CALCULATED-Total Nanure Collected Per			ø	
Animal Group		4023-524	A STATE AND AN INCOME.	

Appendix 4 Crop & Manure Mgmt. Page 1

Version 6.1 - December 2017

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lons	Multiple Final 12		lona	opdi Jawy		forme	Maatipko Initial 25		Matthe Application Memore Utilized on CMU
4	14	. <b> </b>					and a with the desired over the work of the	and a first of the week of the first of the second	Final Nutrient Bolanco (IMA)
	1		000p > 1 wk.	No incorp or iss	April - Oct. I				P Index Application Moltod
0	•	8	•	0	0	G	٥	o	Supplemental Fertilizer (Ib/A)
4	14	76	8	97	P	Z	109	ġ	Nutrient Balance after Manure
£	8	18	21	12	a	8	2	15	Nutrients Applied at Planned Manuro Rate (fb/A)
IonsA	E		tonalA	2.33	n 144 h 444 h 444 h 147 h 147 h 147 h 147 h 1	tonslA	6.22		Planned Markero Rale (Ion or gaUA)
	8	Compare and the second se		8			8		P Index Value
2.0	Removal (Ib/A)	Crop P	14.0	(amoval (Ib/A)	Crop P F	20	Romoval (Ib/A)	Crop P I	(Ion or gal/A, if required by P Index)
torn/A			lons/A	3		tonulA	5		P Removal Balance Manure Rate
tonu/A	16		Ions/A	A		tonz/A	\$		N Esiancod Monuro Rate (ion; gst/A)
xoorp > 1 wk	No incorp or k	April - Oct:	corp > 1 mk	No incorp or in	April - Oct: 1	corp > 1 wk.	No incorp or in	Nov - Mar.	P Index Application Method
		0.15			22			0.20	(Total Nor NH4-N & Organic N)
Org. N	NHA-N	Total N	Org. N	NH4-N	Total N	OTD. N	N144-N	Total N	Avalutility Factors
rf utilitzsion- ys or none	ring or summa tion after 7 der	Spring: Sp Incorpor	utilization-	ing or summer tion stor 7 day	Spring: Spr Incorporal	rient uptako acon	ryime with nut	Grazing an dari	Application Secan: Management (Incorporation, oper crops, std.)
		Broilens			Horses		Nocied	horses - Unoc	Мелита Скоир
8	97	£	2	18	8	140	140	115	Net Nutrients Required (b/A)
Your Laguma	No Previous		roar Logumo	No Previous	a	Ying: Lingumo	No Provious	٥	Lagume History Description Rasiduat Legume N (Ib/A)
vy - Summor rop	Continuous	¢	y - Summor op	Continuoual	o	ly - Summer op	Continuous	ĸ	Manure History Description Residual Manuro N (Ta/A)
And a second		0		The proper property is a part of the property	0			0	Double Crop CarryOver N (Ib/A)
an states framework of Alexandra Days	A STATEMENT OF STATEMENT				Seata batate ( seaf a level)	And a set of the set o	permanents on the second strate of the second strategy with		P Index Application Method
o	0	And	P	¢	0	đ	0	٥	Other Nutrients Applied (Ib/A) (Nutrients applied repartiess of manwa)
Annal Alexandress of the Alexandress			A	and the state of the second state of the second					User Soil Fast Recommondation (Ib/A)
140	140	5	140	145	15	÷	140	150	PSU Soli Test Recommendation (Ib/A)
ន្ត	P205	2	ð	7202	Z	ŝ	205	z	
tonVA			bonA	3		lon/A	J		Planned Yield
nout loguma)	J Pasture (with	Establishe	out legume)	Pasture (with	Establishod	out legume)	s Pasture (with	Establisho	Crop
o e vite a construct de la construction	Part 8		of a lot 4 year 6.	Part B			Part 8		Part A Rosus
	A1500			~1507			~150N		P Index Part A Evaluation
5.8	4	8	5.8	\$	5	5,8	ŧ	2	(Show convensions to ppm in Appendix 10)
Ъđ	ppm K		8	ppm X	ppm P	8	pom X	pom P	Soil Test Lands Mathich 3 2 & X
₹	poctrum Analy	S	x	Sectrum Analyli	1s	łv	pedium Analy	5	
8	Wound 10, 201			would 10, 2010	•••••••••••••••••••••••••••••••	2	Would 10 201		Acid that Barret Data
	-			1					CAU/Field ID
10	lorse Pastu	Ŧ	6	arse Pastur	Ĩ	<b>ē</b>	lorse Pastu	T	App. 4: Crop Yrs. 2019-2021

Appendix 5 P Index Page - 1

Version 6.1 - December 2017

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Cmn Yrs 2019-2021	Pronessivania P Index	Version 2			Co. 12 - 200 - 1004	
PART A: SCREENING TOOL CMU/FIEM ID			PART A: SCREENING	TOOL	CHIWFIeld ID	Horse Pasture
Is the CMU in a Special Protection watershed?		is the CMU in a Special i	Protection watershed?			No
A significant farm management change as defined by Act 38?		la thare a significant fam	) management change as d	afined by Act 387	H the graswer is Yes to	No
Soil Test Mehlich 3 P groater than 200 ppm P?		Is the Soil Test Mehlich 3	3 P greater than 200 ppm P	7 (enter soil test value in ppm P)	any of these questions,	8
Contributing Distance from CMU to receiving water <150 ft.?		is the Contributing Distant	nce from this CMU to receiv	ring water less than 150 ft.?	Part B must be used.	Yes
to winter manura application planned for this field ?		is winter manure applicat	tion planned for this field ?			No
Run P Index Part B voluntarily? (No to all Part A questions.)		Run P index Part B volu	ntanity? (Answers are No 1	to all Part A questions.)		No
PART B: SOURCE FACTORS: Methich 3 Soil Test P (com P)			Menlich 3 Soit Test P (	ppm P)		ß
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	n managa si Anno ang					2
FERTILIZER P APPLIED REGARDLESS OF MANURE (Sunter or other)		a series a series of the serie			Femilter P (Ib P205/sore)	0, 0, 0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED	0.2 Placed or injected Z or	0.4 Incorporated «1 week	0.6 Incorporated > 1 week or not	0.8 Incorporated >1 week or not	Surface applied to frazen or	
REGARCLESS OF MANURE <sup>3</sup>	these alout	topication	incorporated toitowing application	n incorporated rosowing appearion in Nov. - March	ton naskoo muta	
SUPPLEMENTAL P FERTILIZER		(A), no komu s la cadango anango ango mga pag	14. A MANAGEMENT AND A MARKED AND A		Fertilizar P (& P205/acre)	¢, ¢, ¢
PINDEX APPLICATION HETHOD OF SUPPLEMENTAL PREATTLIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week editowing application	0.5 Incorporated > 1 week or not incorporated following applicatio in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov. - March	3 0 Surface applied to frozen or snow covered soil	-, 0.6, -
Fertilizer Rating * Fertilizer Rate x Fertilizer Application Met	ŏđ					0
HANJRE P RATE					Manure P (& P20Shcre)	37, 12, 83
MANURE APPLICATION LIETHOD	0.2 Placed or injected 2" or more deep	0,4 Incorporated <1 week IoRowing application	0.6 troorporated > 1 week or not troorporated bilowing application in April - October	08 (ncorporated >3 week or not n incorporated tolowing opplication in Nov. - March	1.0 Surface applied to tracem or snow covered sod	C 4, D C, D O
P SOURCE COEFFICIENT <sup>3</sup>	Re	fer to: Test results for P	Source Coefficient OR Bo	ok values from P Index Fact Sheet T	2000 1	0.8, 0.8, 1
Manure Rating = Manure Rate x Manure Application Method	x P Source Coefficien	*				78
Source Factor Sum					12 6-1	78
PART B: TRANSPORT FACTORS EROSION			Sai Loca (lowace	ΥΥ)		
RUNOFF POTENTIAL	0 Onanage Class is Excensively	2 Dramage Citass is Somewhat Econstantly	4 Drainogo Closs s WellModeraley Well	6 Drainage Class is Somewhat Poorly	8 Drainago Class a Poorly/Very Poorly	*
SUBSURFACE DRAINAGE	Non		7 Random		2 <sup>1</sup> Patterned	
CONTRIBUTINO DISTANCE	> 500 P	2 360 to 500 h	4 200 ته عدي 10	5 100 to 359 ft. OR 5	4001 1	σ
Transport Sum = Erosion + Runoff Potential + Subsurface D	alnage + Contributin	g Distance	to provide the subsection of the data of the subsection of the sub	and a subject of the second	ne of a second field from the first of the formation of the product of the product of the product of the product of the first of the fi	10
MODIFIED CONNECTIVITY	고 21 11년 이나 11년	),85 201207 문서Ter DIST < 100 FT	1 0 Grassed Witterway or None	1 1 Deect Comedion APPLIES 1	10 DIST > 100 FT	
Transport Sum x Modified Connectivity / 24						036
P Index Value = 2 x Source x Transport	La Assessor and the second					00
Longi So orienea Minute Saado management	MacAury 2010 73 Witrogenetic Witrogenetic	High: 80 to 99 Phosphorus limited to crop		yayy nigiti 100 or yinaday na Prinagonana apolan		
2 "3" המוצא לספינ ואנו בקוראי וס אינות ובשיותיות והמוצאים אובוי כ 20 "ג" לעוצאי לא ביו לא לא לא לא לא ג'יין ביו היא לא ג'יין לא ג'יין אינון אינון אינון אינון אינון ג'יין אינון אינון אינון אינון אינון ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יין ג'יי ג'יין ג'יין	method bator or PSC, # w	್ತೆ ಇಬ್ಬನ್ನು ಬ್ಯಾಂಡರ್				

Appendix 5 - P Index

SeathPlans

# Appendix 10 Crop Years 2019-2021 Supporting Information & Documentation

Includes if applicable the Reinfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates.

Version 6.1 - December 2017 Appendix 10 Supporting Info Page - 2

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	Manure	Analysis 5 Ye	ar Running Av	erage		
Hanves Average for Grop	-Christeller beite die Generale		Ecolis	н		
Yeara, 2018-2021	Average	604 18-74 I	2 утеля воз	3 years ago	4 754/3 300	буналькую
Kabure Report Celo	Aug 17 2018	Aug 17 2018	Aug 24 2017			
Laboratory Nama	Pann Bizia	Parn Stata	Parra Stata			
Магиль Тура	Ρουλη	Poultry	Poutby			
Manute Unit (Routon or 1000 gol)	ibiten	jbitan	Evition			
Total Nitrogan (M) (Review or 1000 gal)	39.40	27.94	50 83			
Ammanikata N (191,-10) (Idustan di 1000 (191)	11.13	10.32	11 59			
Total Organic II (Esston or 1000 gai)	71.14	17,62	38 87			
Total Phosphere (P/Oy) (Instan or 1000 ps?)	27.71	24 28	31 15			
Test Posnik (K.O) (Balon ar 1000 gu)	31.29	28 37	38 21			
Procent Scrids	52.03	40.70	63.39			
PSC Value (Enter analytical or book value)	1.60	1.00	100			

Manara Average for Grop			Kan	18		
Yezrs, 2918-2021	Average	1 year sgo	2 30518 800	of a road C	eco rooy b	5 years 200
Mariane Report Cate	Book Value	Book Value				
Laboratory Name	Penn State	Parin Sala				
Мальта Тура	Other	Qthar				
Manune Unit (Electon or 1990 gal)	ibiton .	82/07				
Total Haropin (H) (biston or 1000 gal)	12.00	12.00				
Animonium N (NB L-N) (dasitan da 1000 gal)						
Total Organic N (its fan or 1000 gal)	12,00	12.00				
Total Photohate (P.O.) (Ibuton or 1000 gil)	8.00	5.00				
Total Potzsh (K,O) (benton or 1000 gel)	8.09	9 00				
Percent Solida	21,00	20.00				
PSC Value (Enter analytical or book value)	640	060				

## Appendix 6 Manure Management

Date of Site Evaluation: August 10, 2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

A site visit was conducted on August 10, 2018 to determine if there are any manure handling issues present. During the visit the areas around the broiler barns, the pasture and the main building area were looked at to determine if there are any handing issues present.

#### Identification of Inadequate Manure Management Practices and Conditions List of each specific inadequate manure management practice or condition identified.

No issues were seen during the visit.

#### **BMPs to Address Manure Management Problem Areas**

List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above.

None at this time.

#### Appendix 7 Stormwater Control

#### Date of Site Evaluation: August 10, 2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

A site visit was conducted on August 10, 2018 to determine if there are any erosion issues present on the operation. During the visit the farm lanes, building site and pasture were looked at to determine if bmps are needed on the operation.

#### **Identification of Critical Runoff Problem Areas**

List of each specific critical runoff problem area identified.

No issues were seen during the visit.

#### **BMPs to Address Critical Runoff Problem Areas**

List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above.

none.

## Appendix 8 Importer/Broker Agreements & NBSs Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan.

### **Exporter/Broker Agreement**

Developed consistent with the PA Nutrient and Odor Management Act Program

1) This agreement is entered into on Augst 22 2118, by

<u>Sclia</u> <u>Mactin</u> (the "exporter") who will supply manure, and <u>kend Mactin</u> (the "broker") who will receive the manure from the

exporter.

- 2) The purpose of this agreement is to set forth the mutual responsibilities and understanding of the parties with respect to the export of manure from the exporter to the broker.
- 3) The exporter is located at (county, twp, and address): Northumberland, Lewis twp, 215-Ballief Rd Muscy PA 17756
- 4) The exporter will, as the supply of manure allows, provide the following amounts of manure during the seasons outlined below:

Tons or gallons (circle one) of manure, per season:

Spring <u>250</u>	Summer	250	Fall	250	Winter_	250	
-------------------	--------	-----	------	-----	---------	-----	--

5) The <u>broker's</u> contact information is as follows:

a) Name: <u>Kundall Martin</u> b) Address: <u>1516 North Hill Jaise</u> <u>Winfield</u>, PA 17889 c) Telephone number: <u>570 - 452 - 2547</u> d) PDA Manure Broker Certification number: \_\_\_\_\_1796 MB2

- 6) The Broker agrees to maintain their status as a certified Commercial Manure Broker as provided under Pa's Commercial Manure Hauler and Broker Certification Program (7 Pa Code Chapter 130e).
- 7) The Broker agrees to comply with all requirements established by section 5 of the Commercial Manure Hauler and Broker Certification Act regarding the development and distribution of nutrient balance sheets to importing operations and conservation districts when handling manure from a CAO, CAFO or volunteer operation.
- 8) The exporter will use a Manure Export Sheet to record all manure exported to the broker. These Manure Export Sheets are available from the county conservation district or the State Conservation Commission. Computer generated forms other than the manure export sheet may be used if they contain the same information as, and are reasonably similar in format to, the forms available from the State Conservation Commission or the conservation district.

- 9) This agreement shall remain in full effect unless terminated by either party upon thirty days prior written notice to the other party. If this agreement is terminated, the exporter shall notify the county conservation district office that approved their nutrient management plan, of the termination.
- 10) By signing this agreement, the broker accepts full responsibility for the manure received from the exporter as long as the manure is under the broker's control, including handling, storage and land application.

Exporter Signature, Name and Date	Broker Signature, Name and Date
(signature)	Jour Par (signature)
Crin Martin (name)	Kandall Martin (name)
(date)	87.22/14 (date)

### Appendix 9 Operation Maps

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The Topographic Map and Soils Map must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary.

## **Orlin Martin Operation**





Soli Map—Northumberland County, Pennsylvania (Orlin Martin)

Natural Resources Conservation Service

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	Manure	Analysis 5 Ye	ar Running Av	atska								
Honore Average for Crop	Brollars											
Yeess, 2019-2021	Average	000 1984 I	2 )55/3 202	S years ago	4 years ego	5 1225 693						
Usivers Report Date	Aug 17 2915	7.53 17 2018	Aug 24 2017									
Laboratory Nama	Pana State	Perin State	Fern State									
Магале Туре	Povility	Ρεωντγ	Poutry									
Manute Und (ReAnn or 1000 gal)	ibîsa	listen	lb%n									
Total Netrogen (N) (Balzon Gr. 1000 gsl)	39,49	27.64	50.69									
Ammorium N (104,-11) (164Aon or 1000 gal)	11.16	10.32	1169									
Total Organic N (ballon or 1000-gal)	28.24	17.62	38 67									
Total Phosphate (P <sub>2</sub> O <sub>3</sub> ) (Ristion or 1000 gal)	27.71	24 23	31 15									
Focal Pocash (K <sub>1</sub> O) Nation of 1000 gal)	3129	20.37	36.21									
Perceril Bolds	62.00	40 70	63 30									
PSC Value (Enter enalytical or book value)	1.00	1 00	100			d 						

Manute Average for Crop	Horses											
Yezra, 2010-2021	Аунгарн	1 )247 890	2 30318 4 20	3 1982/8 800	4 years ego	Sysan poo						
Manure Report Date	Book Valua	Bock Value										
Leboratory Nerva	Pann State	Fern Stela										
Kenuce Type	Other	C9.41										
Manura Urit (bis/ton or 1000 gal)	lbAsa	Ibtin			····•							
Totel NALOGIA (14) (08/2010/ 1000 ps9)	12.00	12 (0)				·						
Альтарация II (194,-44) (199,-001 гл газ/най)		and also also also also also also also also	**************************************	(	ann dhan ku sina suraan.cea							
feetOrganis († (festion of 1000 gili)	12.69	12.00										
1021 Prospecto (P303) (837km of 1000 g8)	6.99	\$.(1)										
Tets ( Petersh (K <sub>2</sub> O) (IbsArn er 1000 gsl)	¥.(•)	9(0				1						
Pecentessa	2010	2000										
PSC Velue (Eller analytical or lock value)	0.(-)	060										



#### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

**DATE:** October 12, 2018

- TO: Members State Conservation Commission
- FROM: Larry G Baum State Conservation Commission
- SUBJECT: Nutrient Management Plan Review Samuel Stoltzfus, Northumberland County, Pennsylvania

#### Action Requested

Action on a Nutrient Management Plan for the following operation in Northumberland County:

Samuel Stoltzfus 16221 SR 405 Watsontown, PA 17777

#### **Background**

I have completed the required review of the subject nutrient management plan listed above. Final corrections to the plan were received at the State Conservation Commission October 12, 2018. As of that date, the plan was considered to be in its final form. The operation, located in Northumberland County, is considered to be a Concentrated Animal Operation (CAO) under the PA Nutrient and Odor Management Act (Act 38 of 2005). The Commission is the proper authority to take action on this plan, because Northumberland County Conservation District is not delegated plan review and action responsibilities under the Act 38 program.

A brief description of the operation, concluding the staff recommendation, is attached. Also attached is a copy of the complete nutrient management plan for the operation.

Thank you for considering this plan for Commission action.

#### **Farm Descriptions**

**Samuel Stoltzfus NMP, Northumberland County** – The Samuel Stoltzfus agricultural operation is a 300-head veal operation with two groups per year. The operation also includes: one Jersey milk cow, four driving horses, two miniature ponies, six female alpacas, two young alpacas, and one male alpaca. The operation consists of a total of 10.7 acres of which 0 acres of cropland, 4.8 acres of grazed hayland, 3.4 acres of pasture and 2.5 acres of farmstead.

The veal manure is handled as a liquid being collected in gutters inside the veal barn and transferred into the circular storage utilizing a pull plug system. The manure may be applied to the grazed hay field spring and fall with excess veal manure exported to Logan D Stoltzfus a new importer for the operation.

Alpacas are rotationally grazed on the hayland with excess grass being harvested for hay. The milk cow, horses and ponies are pastured on two pastures with the cow being on the pastures year-round and the horses on pasture from April to November. When not on pasture, the horses and ponies are confined in the horse barn with the collected manure handled as a solid and spread by hand on the garden or temporarily stacked north of the storage building on the farmstead. Mortalities are composed using a pile in pasture 3. Mortality compost is reused and not applied to fields, garden, nor exported. Horse manure is added to the compost pile as a carbon source.

The combined animal equivalent units on the Samuel Stoltzfus operation is 87.55. There are 8.2 acres available for manure application associated to the Samuel Stoltzfus operation. The animal equivalent units per acre for Samuel Stoltzfus operation are 10.68, classifying this operation as a concentrated animal operation under Act 38 of 2005.

The proposed NMP for Samuel Stoltzfus lists the following BMPs to be implemented,

• New fence (382) around manure storage Fall 2019.

Based on my review, the NMP amendment developed for Samuel Stoltzfus, operation meets the requirements of the PA Nutrient and Odor Management Act and Regulations, and I therefore recommend Commission approval.

## NON-FINAL FO

This NMP may be revised pror to a formal action by the Conservation District Board. The find form of the plan will be available at least 7 days prior to Board action. Yowutrient Management Plan<sup>may</sup> contact the Conservation District to determine the current status of the NMP may contact the Conservation District to determine the current status of the NMP

2019

#### NON-FINAL FOLLY Version 2

This NMP may be revised prior to a formal action by the Conservation District Board. The final form of the plan will be available at least 7 days prior to Board action. You 10/12/18

Month, Day and Year

10/10 Month, Day and Year

For Crop Year(s) 2020

2021

**Prepared For** 

**Operator's Name, Mailing Address, Telephone Number(s)** 

Samuel Stoltzfus, 16221 SR405, Watsontown, PA 17777, 570-538-9525

**Operation's Location Address (if different than above)** 

Same

FINAL FORM This version of the plan will be considered or action by the Conservation District Board

at their Movember 13, 2018 meeting October 12,2018

MONTH, DAY AND YEAR

Site Name (CAFOs)

N/A

Prepared By Nutrient Management Specialist's Name, Address, Telephone Number(s)

Todd C. Rush

TeamAg Inc. 120 Lake Street Ephrata, PA 17522 570-764-7003

Nutrient Management Specialist's Program Certification Number #988-NMC

#### Administratively Complete Date

October 10,2018

Plan Approval Date

Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)



Version 6.2 - June 2018

## 

## NON-FUNAL FOR

This NMP may be review prior to a found action by the Conservation "fortier Board. The first form of the plan will be available at least 7 days prior to Board action. You may contraction forward waters to determine the current scars of the NMP

Munth, Day and Year

Nutrient Management Plan Summary (Excel)

Nutrient Management Plan Summary Notes (Excel)

Manure Spreader Calibration Notes (Excel)

Additional Nutrient Management Plan Requirements (Word)

**Operator Management Map (Mapping Program)** 

Appendix 1: Nutrient Management Plan Agreement & Responsibilities (Word)

**Table of Contents** 

Appendix 2: Operation Information (Word)

Appendix 3: Manure Group Information (Excel)

Appendix 4: Crop & Manure Management Information (Excel)

Appendix 5: Phosphorus Index (Excel)

Appendix 6: Manure Management (Word)

Appendix 7: Stormwater Control (Word)

Appendix 8: Importer/Broker Agreements & Nutrient Balance Sheets (Word & Excel)

Appendix 9: Operation Maps (Mapping Program)

**Topographic Map** 

Soils Map

Appendix 10: Supporting Information & Documentation (Excel) (List below the required documents included in the plan.)

Emergency Response Plan

Like considered (1971) [2010] The considered (1970) will be considered to actual for the Conservation Distance Poord at their December 2012 (2010)

Collector 12, 21, 2 MoNTH, DAY AND VEAD

#### Nutrient Management Plan Summary

Total acres reported in NMP Summary:       8.2       Crop Year(s) 2019         Whole Farm Note:       Manure from the small quantity manure group will be applied by       hand to the family garden.         If manure runs out for any field, consult Appendix 4 of the plan for that field. The ferbilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.       The ferbilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field.									2019							
Operation Acres:       Total Acres Available For Nutrient Application Under Operator's Control: Owned: 8.2       Rented: 0         Animal Equivalent Units:       87.55       Animal Equivalent Units Per Acre: 10.68																
								Sta Feri	arter/Ot illizer (l	her b/A)	Su; Feri	opleme Illizer (l	ntal b/A)	Nutri	ient Bal (ib/A) <sup>2</sup>	lance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rati	Nanure 2 <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P2O5	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
1	4.8	Established Mixed Grasses	Femal Alpaca Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	o						
1	4.8	Established Mixed Grasses	Young Alpaca - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	o						
1	4.8	Established Mixed Grasses	Male Alpaca - Uncollected	Grazing	Grazing anytime with nutrient uplake during growing season	Grazing	See Notes	0	0	o						

Early Fail: Early spring utilization incl. winter crop in double

crop system: Incorporated after 7

days or none Spring: Spring or summer utilization-

Incorporation after 7

days or none

5000 gaVA

5000 gal/A

0

0

0

0

0

0

111

0

12

Veal Manure

Fall

Veal Manure

Spring

Early Fail

Spring

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Established

Mixed

Grasses

Established

Mixed

Grasses

4.8

4.8

1

1

Version 6.3 - August 2018 NMP Summary Page - 1

0

-556

0

								Sta Ferf	irter/Ot ilizer (l	her b/A)	Sup Fert	opleme ilizer (l	ntal b/A)	Nutri	ent Bal (lb/A) <sup>2</sup>	ance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure a <sup>1</sup>	N	₽₂O₅	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K2O
2	1.5	Established Pasture (without legume)	Milk Cow - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0						
2	1.5	Established Pasture (without legume)	Driving Horse - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0						
2	1.5	Established Pasture (without legume)	Miniature Pony - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	53	0	0	0	-77	-44
3	1.9	Established Pasture (without legume)	Milk Cow - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	o	0						
3	1.9	Established Pasture (without legume)	Driving Horse - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	o	0						
3	1.9	Established Pasture (without legume)	Miniature Pony - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	53	0	0	0	-77	-44

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Page - 2

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#### **NMP Summary Notes**

	Crop Years 2019
CMU/Field ID	Notes
1	
1	
1	
1	
1	This field is managed as grazed hay. An average of 6 female alpacas, 2 young alpacas and 1 male alpaca are kept in the field for 24 hours per day year round or equivalent time. Small paddocks made from temporary fence are rotated through the field during the year. Water and supplemental feed are provided in the field.
2	
2	
2	This field is managed as permanent pasture. An average 1 mix cow is kept in the field for 24 hours per day year round or equivalent time. An average of 4 driving horses and 2 miniature ponies are kept in this field for 24 hours per day from April through November or equivalent time. Water and supplemental feed are provided in the pasture. Supplemental feed is also provided at the horse barn.
3	
3	
3	This field is managed as permanent pasture. An average 1 mik cow is kept in the field for 24 hours per day year round or equivalent time. An average of 4 driving horses and 2 miniature pontes are kept in this field for 24 hours per day from April through November or equivalent time. Water and supplemental feed are provided in the pasture. Supplemental feed is also provided at the horse barn.

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Notes Page - 1

#### Manure Spreader Calibration Notes

1				Crop Years 2019
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
5,000 gallons per acre	Irrigation Gun	N/A	Honda Pump	5" pumped from storage using Honda pump equals 5,000 gallons per acre (1" = 1,000 gallons)
5,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A
	1			

Version 6.3 - August 2018

Manure Spreader Calibration Page - 1
#### Nutrient Management Plan Summary

Crop Year(s) 2020 Total acres reported in NMP Summary: MP Summary: <u>8.2</u> Manure from the small quantity manure group will be applied by hand to the family garden. If manure runs out for any field, consult Appendix 4 of the plan for that Whole Farm Note: field. The fertilizer required on any part of the field that does not receive manure can be determined from the 'Net Nutrients Required' for that field. **Operation Acres:** Total Acres Available For Nutrient Application Under Operator's Control: Owned: 8.2 Rented: 0 Total Acres: 10.7 Animal Equivalent Units: 87.55 Animal Equivalent Units Per Acre: 10.68 Starter/Other Supplemental Nutrient Balance Fertilizer (Ib/A)  $(Ib/A)^2$ Fertilizer (Ib/A)

CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate	lanure 1	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>6</sub>	K₂O
1	4.8	Established Mixed Grasses	Femal Alpaca Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	o	o	0						
1	4.8	Established Mixed Grasses	Young Alpaca - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	o	0			a volumente accustor vilcon ou o			
1	4.8	Established Mixed Grasses	Male Alpaca - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0						
1	4.8	Established Mixed Grasses	Veal Manure Fail	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	5000	gaVA	0	0	0						
1	4.8	Established Mixed Grasses	Veal Manure Spring	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	5000	gaVA	0	0	0	111	0	12	0	-556	0

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Page - 1

								Sta Feri	Starter/Other Fertilizer (Ib/A)		Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>		
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure a <sup>1</sup>	N	P205	K₂O	N	P <sub>2</sub> O <sub>6</sub>	K₂O	N	P205	К,0
2	1.5	Established Pasture (without legume)	Milk Cow - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0						
2	1.5	Established Pasture (without legume)	Driving Horse - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0						
2	1.5	Established Pasture (without legume)	Miniature Pony - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	o	o	0	53	0	o	o	-77	-44
3	1,9	Established Pasture (without legume)	Milk Cow - Unco%ected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	o	o	0						
3	1.9	Established Pasture (without legume)	Driving Horse Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	o	O	o						
3	1.9	Established Pasture (without legume)	Miniature Pony - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	53	0	o	0	-77	-44

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Page - 2

## **NMP Summary Notes**

	Crop Years 2020
CMU/Field ID	Notes
1	
1	
1	
1	
1	This field is managed as grazed hay. An average of 6 female alpacas, 2 young alpacas and 1 male alpaca are kept in the field for 24 hours per day year round or equivalent time. Small paddocks made from temporary fence are rotated through the field during the year. Water and supplemental feed are provided in the field.
2	
2	
2	This field is managed as permanent pasture. An average 1 milk cow is kept in the field for 24 hours per day year round or equivalent time. An average of 4 driving horses and 2 miniature ponies are kept in this field for 24 hours per day from April through November or equivalent time. Water and supplemental feed are provided in the pasture. Supplemental feed is also provided at the horse barn.
3	
3	
3	This field is managed as permanent pasture. An average 1 milk cow is kept in the field for 24 hours per day year round or equivalent time. An average of 4 driving horses and 2 miniature ponies are kept in this field for 24 hours per day from April through November or equivalent time. Water and supplemental feed are provided in the pasture. Supplemental feed is also provided at the horse barn.

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Notes Page - 1

## Manure Spreader Calibration Notes

1				Crop Years 2020
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
5,000 gallons per acre	Irrigation Gun	N/A	Honda Pump	5" pumped from storage using Honda pump equals 5,000 gallons per acre (1" = 1,000 gallons)
5,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A
			1	

Version 6.3 - August 2018

Manure Spreader Calibration Page - 1

## Nutrient Management Plan Summary

Total acres rep	oorted in N	MP Summa Manure from	ıry: m the small q	8.2 uantity manu	re group will be app	lied by					C	Crop Y	ear(s)	2021		
Whole Farm Not	ie:	hand to the If manure ru field. The fea manure can field.	family garde ns out for any rtilizer required be determined	n. field, consult I on any part of I from the 'Ne	Appendix 4 of the plan of the field that does n at Nutrients Required	n for that not receive for that	-									
Operation Acro Total Acres: Ani	es: 10.7 mal Equiva	- Tota atent Units:	Acres Avail	abie For Nutr	ient Application Unc Animal Equ	ler Operato Jivalent U	or's Con Inits Pel	trol: C r Acre:	wned: 10.68	8.2		R	ented:	0		
								Sta Feri	rter/Ot illzer (I	her b/A)	Sur Fert	opleme ilizer (l	ntal b/A}	Nutri	ient Bal (lb/A) <sup>2</sup>	ance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rat	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P₂Oş	K₂O	N	P₂O₅	K₂O
1	4.8	Established Mixed Grasses	Femal Alpaca Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	o	o	0						
4	40	Established	Young Alpaca	Grazina	Grazing anytime with putrient uptake during	Grazion	See	0	0	n						

		•			1				-						·	f
1	4.8	Established Mixed Grasses	Young Alpaca - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	o	0	0						
1	4.8	Established Mixed Grasses	Male Alpaca - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0						
1	4.8	Established Mixed Grasses	Veal Manure Fall	Earty Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	5000	gaVA	0	o	0						
1	4.8	Established Mixed Grasses	Veal Manure Spring	Spring	Spring: Spring or summer utilization- tncorporation after 7 days or none	5000	gaVA	0	0	0	111	0	12	0	-556	0

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Page - 1

								Sta Fert	Starter/Other Fertilizer (Ib/A)		Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>		
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P205	K₂O	N	P2O5	K <sub>2</sub> O	N	P206	К₂О
2	1.5	Established Pasture (without legume)	Milk Cow - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	o	o	o						
2	1.5	Established Pasture (without legume)	Driving Horse Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	o		3				
2	1.5	Established Pasture (without legume)	Miniature Pony - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	53	0	0	0	-77	-44
3	1.9	Established Pasture (without legume)	Mifk Cow - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	o	o						
3	1.9	Established Pasture (without leguma)	Driving Horse Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	o	0						
3	1.9	Established Pasture (without legume)	Miniature Pony - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	53	0	0	0	-77	-44

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Page - 2

## **NMP Summary Notes**

	Crop Years 2021
CMU/Field ID	Notes
1	
1	
1	
1	
1	This field is managed as grazed hay. An average of 6 female a'pacas, 2 young a'pacas and 1 male a'paca are kept in the field for 24 hours per day year round or equivalent time. Small paddocks made from temporary fence are rotated through the field during the year. Water and supplemental feed are provided in the field.
2	
2	
2	This field is managed as permanent pasture. An average 1 milk cow is kept in the field for 24 hours per day year round or equivalent time. An average of 4 driving horses and 2 miniature ponies are kept in this field for 24 hours per day from April through November or equivalent time. Water and supplemental feed are provided in the pasture. Supplemental feed is also provided at the horse barn.
3	
3	
3	This field is managed as permanent pasture. An average 1 milk cow is kept in the field for 24 hours per day year round or equivalent time. An average of 4 driving horses and 2 miniature ponies are kept in this field for 24 hours per day from April through November or equivalent time. Water and supplemental feed are provided in the pasture. Supplemental feed is also provided at the horse barn.

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

Version 6.3 - August 2018 NMP Summary Notes Page - 1

## Manure Spreader Calibration Notes

1				Crop Years 2021
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
5,000 gallons per acre	Irrigation Gun	N/A	Honda Pump	5" pumped from storage using Honda pump equals 5,000 gallons per acre (1" = 1,000 gallons)
5,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A
		· · · · · · · · · · · · · · · · · · ·		

Version 6.3 - August 2018

Manure Spreader Calibration Page - 1

# **Additional Nutrient Management Plan Requirements**

## **Manure Management and Stormwater BMP Implementation Summary**

Best Management	NRCS Practice	BMP Location	Implementation
Practice	Code <sup>1</sup>		Season & Year
Fence	382	Concrete manure storage tank	Fall / 2019

1 If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank.

### **In-Field Manure Stacking Procedures**

Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles.

This operation does not field stack manure.

### **Additional CAFO Requirements**

In-field stacking criteria, winter storage requirements, and other issues identified by DEP's review of the nutrient management plan.

This operation is not a CAFO.

### **Proposed Manure Storage Description**

Type, dimensions, volume, freeboard and location on map.

There are no manure storages proposed for this operation.

#### **Description of Planned Alternative Manure Technology Practices**

Type of practice, volume of manure addressed, and result of practice.

There are no alternative manure technology practices planned for this operation.

#### **Exported Manure Summary**

Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan.

Excess veal manure is exported to known manure importers for application on cropland.

### **Operator Management Map**

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Operator Management Map** is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9.



## Appendix 1 Nutrient Management Plan Agreement & Responsibilities

## **Plan Implementation Requirements**

This nutrient management plan has been developed to meet the requirements of the following programs:

X	Pennsylvania Act 38 of 2005	Х	CAO	[	VAO (check one)							
	Pennsylvania CAFO (Concentrated Animal Feeding Operation) program											
	Other program:											

Plans developed under these programs are required to be implemented as approved in order to maintain compliance with the specific law or program. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions; installation of listed BMPs within implementation timeframes; and record keeping obligations of the program.

#### The nutrient management plan has been developed as a: (check one)

	1-Year Plan for Crop Year		(annual updates	s will be completed)
х	3-Year Plan for Crop Years	2019	2020	2021

#### Records required to be maintained include the following:

- 1) Annual crop yields
- 2) Manure and fertilizer application rates, locations and date of application
- 3) Manure production figures for the various manure groups listed in your plan
- 4) Soil test reports (testing required every 3 years per crop management unit)
- 5) Manure test reports (testing required once a year for each manure group)
- 6) Number of animals on pasture, number of days on pasture, and hours per day on pasture
- 7) For operations exporting manure, Manure Export Sheets
- 8) BMP designs and certification for new liquid and semi-solid manure storage facilities

#### The following has been confirmed:

Verification of Ag E&S Plan

Verification of Existing Site Specific Emergency Response Plan

Х

Verification that owners of rented/leased lands have been notified that a nutrient management plan has been developed which calls for manure to be applied to their lands and that they have no objections to the plan requirements.



Х

Х

**Owners Notified** 

No Rented/Leased Lands

## **Specialist Signature**

I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the program(s) indicated above; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

Specialist Signature	Taketk
Date	09/27/18

## **Operator Signature**

I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

Λ

**Operator Signature** 

**Operator Title** 

Date

Samto Statt	
Duner Operator	
10-10-18	

## Appendix 2 Operation Information

## **Operation Description**

Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management, including atypical manure (contributing animal groups, collection, storage and handling procedures); mortality composting management.

Samuel Stoltzfus operates a veal raising farm in Northumberland County, PA. The operation consists of a total of 0 acres of cropland, 4.8 acres of hayland, 3.4 acres of pasture and 2.5 acres of farmstead. The current crop rotation used on the operation is permanent mixed grass hay. No tillage occurs on the operation at this time. The livestock operation consists of an average of 300 veal calves, 1 jersey milk cow, 4 driving horses, 2 miniature ponies, 6 adult female alpacas, 2 young alpacas and 1 adult male alpaca. Veal calves are 100% confined to the veal barn. Collected veal manure is handled as a liquid and stored in a circular concrete manure storage tank northwest of the veal barn. Veal manure is applied to mixed grass hay in the fall and spring. Excess veal manure is exported to known manure importers in the fall and spring. Alpacas are rotationally grazed through hay field 1 year round using temporary fence to make paddocks in the field. The milk cow is kept on pastures 2 and 3 year round. Horses and miniature ponies are kept on pastures 2 and 3 from April through November. Horses and miniature ponies are housed in the horse barn when not kept on pasture. These animals are considered a small quantity manure group in this plan. Collected horse and pony manure is handled as a solid and spread by hand on the family garden at the farmstead or added to the mortality compost pile as a carbon source for composting. Collected horse and pony manure may also be temporarily stacked north of the storage building at the farmstead until it is spread on the garden. Mortalities are composted using a compost pile in pasture 3. Mortality compost is reused as a composting base and is not applied to crop fields, the garden or exported off of the operation.

## County(s)

Northumberland County / Delaware Township

## Name of Receiving Stream(s)/Watershed(s)

Unnamed Tributary to the West Branch of the Susquehanna River - WWF

#### **Notation of Special Protection Waters**

None

#### **Operation Acres**

Total Acres: 10.7 acres

#### Total Acres Available for Nutrient Application Under Operator's Control

Owned: 8.2 acre

Rented: 0 acres

None

## **Existing Manure Storages & Capacity**

Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures.

A 45' x 8' circular concrete manure storage tank is located northwest of the veal barn. The usable capacity of this storage is 83,728 gallons when accounting for a 6" free board, the volume of a 25 year / 24 hour storm event. This storage is bottom loaded by a gravity pipe. Manure is transferred to the storage using a pull-plug gutter system. There are at total of  $8 - 1' \times 75' \times 1.25'$  deep (gutters slope from 0" to 30") gutters with pull-plugs. The storage volume of each gutter is 701.25 gallons and the total storage of all 8 gutters is 5,610 gallons. No runoff water or bedding is added to the storage. Veal barn wash water is added to the storage with veal manure. The storage is constantly agitated during manure removal. The majority of manure is removed from the storage when is it emptied, however a small amount of solids remain in the bottom of the storage. A representative manure sample is taken when the storages are emptied.

## Manure Application Equipment Capacity & Practical Application Rates

Description of application equipment, practical application rates based on calibration and calibration method used, the data recorded during equipment calibration is to be retained on the farm. If applicable, name and Act 49 certification number of custom applicator.

The operation uses an irrigation gun to apply liquid veal manure. The irrigation gun is attached to a riser stand and is moved through out the field by hand. The manure is pumped directly from the concrete manure storage tank to the irrigation gun using a Honda pump. One inch of liquid stored in the concrete manure storage tank is equal to approximately 1,000 gallons. By pumping 5 inches of manure from the concrete manure storage tank, 5,000 gallons of manure is applied. The operation also uses a custom manure applicator to apply liquid veal manure. Menno Reiff 648-MH3, 117 Roush Road, Mifflinburg, PA 17844, 570-966-4349. The custom manure applicator's equipment has been calibrated to apply manure at the rates listed in this plan. Collected small quantity manure group manure is spread by hand.

Appendix 3 Manure Group Information Crop Yrs. 2019	Veal Ma	oure Fall	Veal Manut	re Spring	Mik	Cow	Smail Quantity N	anure Group	Alp	aca
Manure Report Date (note if averaging several reports)	October 1, 2018		October 1, 2018		Book Value		Book Value	2401	Book Value	
Laboratory Name	Spectrum Analytic, Inc		Spectrum Analytic, Inc.		Penn State Agronomy Guide		Penn State Agronomy Guide		State Conservation Commission	
Manure Type	Other	And the P	Other	and the second	Dairy		Other		Other	12 2
Manure Unit (Ibs/ton or 1000 gal)	Ib/1000 gal		lb/1000 gal	in select in	Ibition		Riton		Ibiton	
Total Nitrogen (N) (Ibs/ton or 1000 gal)	24.03		24.08		10.00		12.00		20.00	
Ammonium N (NH <sub>4</sub> -N) (Ibs/ton or 1000 ga!)	16.60		16 60		Complete NH4-N		Complete NH4-N		Complete NH4-N	
Total Organic N (Ibs/ton or 1000 gal)	7.48	Go to MMP Index	7.48		Check N values in Manure Avg Input		Check N values in Manure Avg Input		Check N values in Manure Avg Input	
Total Phosphate (P <sub>2</sub> O <sub>3</sub> ) (ibs/ton or 1000 gal)	54.97	Go to Appendix 3 kmut	54 97		4.00		5.00		3 90	
Total Potash (K <sub>2</sub> O) (ibs/ton or 1000 gal)	16.87	Go to Manure Ava Input	16 87		8.00		9.00	-	20,80	
Percent Solids	4.17	Generra Calculator	4.17		12.00		20.00		65.00	
PSC Value (analytical or book value)	0.87		0.87		080		08.0		1.00	in warder
Percent Moisture	95.83		95.83	A STATE OF A	68.00	2.0.24	80.00		35.00	I Cut
Manure Group AEU's	40.27		40.27	Carlos - 1	1.00		4.60		1.20	
Description:	Concrete Tank	Fa'l	Concrete Tank	Spring	Pasture	Year Round	Horse Barn	Spring, Summer & Fail	Pasture	Year Round
Inventory Method	Records		Records		Calculated		Calculated		Calculated	
	0.0.1.10.1	In the start of the	Cultured Cala	Lines Verlad Cale	Collected Cale	Uncollected Calo	Collected Calo	Uncollected Calc	Collected Calc	Uncollected Calc
Maoure Group Identification	Collected Calc.	Uncollected Calc.	Veal Manure Spring	Unconected Calc.	Mik Cow	Mik Cow -	Small Quantity Manure	Small Quantity Manure Group -	Alpaca	Alpaca - uncollected
Manute Group Identification	rearmander ar		rearmanate opting			uncollected	Group	uncollected		
CALCULATED: Total Manure Collected Per Manure Group		2.33			0.0	20.3	15.9	36.3	0.0	7.1
Units	- 135a -	1	1.00		Tons	Tons	Tons	Toos	Tons	Tons
RECORDS: Total Manure Collected Per Manure Group	83,700 0		83,700 0							1.407.945
Unit	gallons	And the second second	gallons			1 - 20 - 4 HB				and the second
and the second second	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	24,000.0	0.0	24,000.0	0.0	0.0	20.3	0.0	36.3	0.0	7.0
Units	Gallons		Gallons		Tons	Tons	Tons	Tons	Tons	Tons
Manure Exported	59,700 0		59,700.0	1	0.0	1.1.1.1	0.0		0.0	for a settler
Units	gallons		gallons		tons		tons		tons	
Manure Allocation Balance	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.0	0.0 Teat	0.1
Units	Gallons		Gallons		Tons	Tons	Ions	Ions	Tons	1005
Manure Balance as a Percent of Total Manure Collected	0.0%		0.0%				100.0%			
Total Rainfall and Runoff	0		0		0	1000	0	1	0	
	gallons		gallons		tons		tons		tons	

Appendix 3 Manure Group Information Crop Yrs. 2019	Veal Man	oure Fall	Veal Manure Spring		Mik Cow		Small Quantity Manure Group		Alpaca	
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure Nutrient Analysis Book Values
Animal Group 1	Veal Caif Fail		Veal Calf Spring	2011 - E.L.	Mik Cow	Mik Cow -	Driving Horse	Driving Horse -	Femal Alpaca	Femal Alpaca -
Animal Type	Veal Calf 0-20 wk		Veal Calf. 0–20 wk.		Jersey Lactating Cow	Total Ntrogen	Light Horse Mature	Total Ntrogen	Female Alpaca	Total Ntrogen (N) Ibston
Animal Number	300		300		1	10.00	4	ton	6	20.00
Animal Weight	280		280	16-1-2	1000	Total Phosphate (P2O5) lbs.ton	1100	Total Phosphate (P2O5) lbs/ton	145	Total Phosphate (P2O5) lbs/ton
Animal Group AUs	84.00		84.00		1.00	4.00	4.40	55.00	0.87	3.90
Animal Group AEUs	40.27		40.27		1.00	Total Potash (K2O) Ibston	4.40	Total Potash (K2O) Ibston	0.87	Total Potash (K2O) Ibston
Daily Manure Production	7.0		7.0		111.0	8.00	55 0	12.00	32.2	20.80
Total Days Manure	175	12	175		365	PSC Value	365	PSC Value	365	PSC Value
Total Manure Produced	n (1997)				20	0.60	44	5.00	5	1.00
Days On Pasture	0		0		365		275	And a second second	365	- 6
Hours Per Day On Pasture	0		0		24	1.20 1 1 2 3	24		24	
Total Bedding		1		Grazing Celoufator	0		2	and the second	0	
Total Washwater					0		0		0	1
CALCULATED - Total Uncollected Manure Per	11885		1.289 27		20.3	20 - Tons	33.3	33 - Tons	5.1	5 - Tons
Animal Group CALCULATED-Total Manure Collected Per Animal Group		Amitod	-		0		13		0	
Animal Group 2	1	A DWT TOTAL					Miniature Pony	Miniature Pony -	Young Aloaca	Young Alpaca -
Animal Turn		Sec. Sec.	· · · · · · · · · · · · · · · · · · ·			HACHLINE TO A	Miniahura Horsa Mahura	uncollected Total Nitrogen	Young Alogog	uncollected Total Nitrogen
Animal Type		N. H. THE		1 14 AV			2	(N) Ibs/ton	2	(N) lbston
Animal Number								12.00		-
Animal Weight							200	(P2O5) lbs/ton	03	(P2O5) lbs/ton
Animal Group AUs	1			1			0.40	5.00	0.16	3.90
Animal Group AEUs			18 1				0.40	Total Potash (K2O) Ibsilon	0.16	Total Potash
Daily Manure Production							55.0	9.00	32.2	20.60
Total Days Manure						the second state	365	PSC Value	365	PSC Value
Total Manure Produced							4	0.80	1	1.00
Days On Pasture							275		365	
Hours Per Day On Pasture							24		24	
Total Bedding				444			2	See	0	
Total Washwater							0		0	
CALCULATED - Total Uncollected Manure Per Animal Group			are i				3.0	3 - Tons	09	1 - Tons
CALCULATED-Total Manure Collected Per Animal Group		Acobied		9-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			3		0	

Appendix 3 Manure Group Information Crop Yrs. 2019	anure Group rop Yrs. Veal Manure Fat		Veal Nature Spring		Misc	Mik Cow		Small Quantity Manute Group		А'раса	
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	UncoSected Manure: Nutrient Analysis Book Values	Manute Generation per Animat Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure Michart Analysis Book Values	Manura Generation per Animal Group	UncoSected Manura: Nutrient Analysis Book Values	
Animal Group 3								1	Male Alpaca	Male Apaca - Locoleded	
Arimal Type		-					]		Male Alpaca	Total Ncrogen (N) Ipstco	
Animal Number		1.							1	20.00	
Animal Weight		·····							170	Total Phosphata (P2O5) los/ton	
Arismal Group AUs								1	0.17	3.90	
Animal Group AEUs			· · ·					1	0.17	Total Potash (X2O) Itation	
Daily Manure Production		- · ·			en an airtean an airtea		teres a second		32.2	20.60	
Total Days Manure Produced		-						1	365	PSC Value	
Total Manure Produced									1	1.00	
Days On Pasture Hours Per Day On Pasture									365 24		
Total Bedding		1							0		
Total Washwater				1					0		
CALCULATED - Total Uncollected Manure Per Animal Group				· .	, mit on th	N.N.			1.0	1 - Tons	
CALCULATED-Total Manure Collected Per Animal Group		Arr Astra							0		

Appendix 3 Manure Group Information Crop Yrs. 2020	, Veal Ma	oure Fail	Veal Manu	re Spring	Mik	Caw	Small Quantity N	lanure Group	Aly	baca
Manure Report Date (note if averaging several reports)	October 1, 2018		October 1, 2018		Book Value		Book Value		Book Value	
Laboratory Name	Spectrum Analytic, Inc	2	Spectrum Analytic, Inc.		Penn State Agronomy Guide		Penn State Agronomy Guide		State Conservation Commission	
Manure Type	Other		Other		Dairy		Other		Other	
Manure Unit (Ibs/ton or 1000 gal)	Ib/1000 gal		ib/1000 gal		ib/ton		Ibiton		lb/ton	
Total Ntrogen (N) (ibs/ton or 1000 gal)	24.03		24.08		10.00		12 00		20.00	
Ammonium N (NH <sub>4</sub> -N) (ibs/ton or 1000 gal)	16 60		16.60		Complete NH4-N		Complete NH4-N		Complete NH4-N	
Total Organic N (ibs/ton or 1000 gal)	7.48	Go to MMP Index	7.48		Check N values in Manure Avg Input		Check N values in Manure Avg Input		Check N values in Manure Avg Input	
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (ibs/ton or 1000 gal)	54.97	Oo to Astenda 3 kod	54.97		4 00		5.00		3 90	
Total Potash (K <sub>2</sub> O) (ibs/ton or 1000 gal)	16.87	Go to Manuel And Irout	16.87	1.125	8.00		9.00		20.80	
Percent Solids	4.17	Grazing Calculator	4.17		12 00		20.00		65.00	
PSC Value (analytical or book value)	0.87		0.87		0 60		03.0		1.00	
Percent Moisture	95.83		95.83	1 - 5	88.00		80.00	And a second second	35.00	
Manure Group AEU's	40.27		40.27		1.00		4.80	1.	1 20	
Description: Site & Season Applied	Concrete Tank	Fall	Concrete Tank	Spring	Pasture	Year Round	Horse Barn	Spring, Summer & Fall	Pasture	Year Round
Inventory Method	Records		Records		Calculated		Calculated		Calculated	
	College of Calls	I have the start of Calls	Callented Cala	Here Pasted Colo	Collected Cole	Hearingted Cale	Collected Cale	Uncollected Calo	Collected Cale	Lincollected Cale
Manure Group Identification	Veal Manure Fall	Unconected Calc.	Veal Manure Spring	Unconscied Calc	Mik Cow	Mik Cow - uncollected	Small Quantity Manure Group	Small Quantity Manure Group -	Alpaca	Alpaca - uncollected
CALCULATED: Total Manure Collected Per Manure Group					0.0	20.3	15 9	36.3	0.0	7.1
Units	(i.e. 1.e. 1.e. 1.e. 1.e. 1.e. 1.e. 1.e.		200		Tons	Tons	Tons	Tons	Tons	Tons
RECORDS: Total Manure Collected Per Manure Group	83,700 0		83,700.0							
Unit	gallons		galions			1	and the second second			
	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	24,000.0	0.0	24,000.0	0.0	0.0	20.3	0.0	36.3	0.0	7,0
Units	Gallons		Galions		Tons	Tons	Tons	Tons	Tons	Tons
Manure Exported	59,700.0		59,700.0		0.0		0.0		0.0	
Units	gallons		galions		tons		tons		tons	
Manure Allocation Balance	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.0	0.0	0.1
Units	Gations	1	Galions		Tons	Tons	Tons	Tons	Tons	Tons
Manure Balance as a Percent of Total Manure Collected	0.0%	: i :	0.0%				100.0%			
Total Rainfall and Runoff	0		0		0		0		0	
12111111	gallons		gailons	1.	tons		tons		tons	

Appendix 3 Manure Group Information Crop Yrs. 2021	Veal Ma	nure Fall	Veal Manu	re Spring	Mik C	ion .	Small Quantity N	lanure Group	Aʻp	aca
Manure Report Date (note if averaging several reports)	October 1, 2018		October 1, 2018	$i \in \mathcal{X}$	Book Value		Book Value		Book Value	
Laboratory Name	Spectrum Analytic, Inc	2	Spectrum Analytic, Inc.		Penn State Agronomy Guide	NP.	Penn State Agronomy Guide	- 44	State Conservation Commission	
Manure Type	Other		Other		Dairy	100	Other	1 <b>1</b>	Other	
Manure Unit (ibsAon or 1000 gal)	Ib/1000 gal		15/1000 gal		Ib/ton		Ib.ton	W	lb/ton	
Total Nitrogen (N) (ibs/ton or 1000 gal)	24.03		24.03		10.00		12.00		20.00	
Ammonium N (NH <sub>4</sub> -N) (ibs/ton or 1000 gal)	16.60		16 60	-	Complete NH4-N		Complete NH4-N		Complete NH4-N	
Total Organic N (ibs/ton or 1000 gal)	7.48	Go to NMP. Index	7.48		Check N values in Manure Avg Input		Check N values in Manure Avg Input		Check N values in Manure Avg Input	
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (ibs/ton or 1000 gal)	54.97	Go to Accerda 3 Inc.d	54.97		4.00		5.00	Average of the	3.90	
Total Potash (K <sub>2</sub> O) (ibs/ton or 1000 gal)	16.87	Go to Matara Ava based	16.87		8 00		9.00	des pre di	20.60	
Percent Solids	4.17	Gratica Calculator	4.17		12.00		20 00		65.00	
PSC Value (analytical or book value)	0.87		0.87		0.80		0.80	ne-barns [	1.00	
Percent Moisture	95.83		95.83	- 120 - 149 F	83 00	Contraction and the second	60.00	view contraction of the	35.00	
Manure Group AEU's	40.27		40.27		1.00		4.80	And Land	1.20	
Description: Site & Season Applied	Concrete Tank	Fall	Concrete Tank	Spring	Pasture	Year Round	Horse Barn	Spring, Summer & Fall	Pasture	Year Round
Inventory Method	Records		Records		Calculated		Calculated		Calculated	
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc	Collected Calc	Uncollected Calc.	Collected Calo.	Uncollected Calo.
Manure Group Identification	Veal Manure Fall		Veal Manute Spring		Mik Cow	Mik Cow - uncollected	Small Quantity Manure Group	Small Quantity Manure Group -	A'paca	Alpaca - uncollected
CALCULATED: Total Manure Collected Per					0.0	20.3	15.9	36.3	0.0	7.1
Manure Group			Alles -		Toos	Tons	Tons	Tons	Tons	Tons
RECORDS: Total Manure Collected Per Manure Group	83,700 0		83,700.0				1-1			
Unit	gallons		gailoris							
	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected	Collected	Uncollected
Manure Used On-Farm	24,000.0	0.0	24,000.0	0.0	0.0	20.3	0.0	36.3	0.0	7.0
Units	Gallons		Gallons	- モリート 日本	Tons	Tons	Tons	Ions	Tons	Ions
Manure Exported	59,700.0		59,700.0		0.0		0.0		0.0	
Units	gallons		gallons		tons		tons		tons	
Manure Allocation Balance	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.0	0.0	0.1
Units	Gations		Gallons		Tons	Tons	Tons	Tons	Tons	Tons
Manure Balance as a Percent of Total Manure Collected	0.0%		0 0%				100.0%			
Total Rainfall and Runoff	0		0		0		0		0	
	gallons		gallons		tons		tons		tons	

	Manure /	Analysis 5 Yea	ar Running Av	erage						
Manure Average for Crop	Veal Manure Fail									
Years, 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago				
Manure Report Date	Oct 01 2018	Oct 01 2018	Jul 21 2015							
Laboratory Nama	Spectrum Analytic, Inc.	Spectrum Analytic, Inc.	Penn State							
Manure Type	Other	Other	Other							
Manura Unit (Iositon or 1000 gal)	lb/1000 gai	Ro/1000 gal	Rb/1000 gal							
Total Nitrogen (N) (6s/ton or 1000 gal)	24.08	28.70	19,45							
Ammonium N (NH <sub>4</sub> -N) (ibston or 1000 gal)	15.60	18.30	14.89							
Total Organic N (#siton or 1000 gal)	7.48	10.40	4.56	· · · · ·						
Total Phosphate (P <sub>2</sub> O <sub>3</sub> ) (ibs.ton or 1000 gal)	54.97	43.50	66.44							
Total Potash (K <sub>2</sub> O) (ibs/ton or 1000 gal)	16.87	16.50	17.23							
Percent Solds	4.17	3.74	4.60							
PSC Value Enter analytical or book value)	0.87	0.74	1.00							

Manure Average for Grop	Veal Manure Spring									
Years, 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago				
Manure Report Date	Oct 01 2018	Oct 01 2018	Jul 21 2015							
Laboratory Nama	Spectrum Analytic, Inc.	Spectrum Analytic, Inc.	Penn State							
Manure Type	Other	Other	Other							
Manure Unit (fbs.ton or 1000 gal)	fb/1000 gal	R/1000 gal	fo/1000 ga)							
Total Närogen (N) (ibs.ton or 1000 gal)	24.08	28.70	19.45							
Ammorium N (NH <sub>4</sub> -N) (ibs.ton or 1000 gal)	16.60	18.30	14.89							
Total Organic N (Ibs/ton or 1000 gal)	7.48	10,40	4.55							
Total Phosphate (P <sub>2</sub> O <sub>2</sub> ) (Esston or 1000 gal)	54,97	43.50	66.44							
Total Potash (K₂O) (ibs/ton or 1009 gal)	16.87	16.50	17.23							
Percent Solids	4.17	3.74	4.60							
PSC Value (Enter analytical or book value)	0.87	0.74	1.00							

Manure Average for Crop			Milk C	ow		
Years. 2019	Average	i year ago	2 years ago	3 years ago	4 years ago	5 years ago
Manure Report Date	Book Value	Book Value				
Laboratory Name	Penn State Agronomy Guide	Penn State Agronomy				
Малиге Тура	Dairy	Dziry				
Manure Unit (foston or 1000 gal)	tb/ton	noficia				
Total Nitrogen (N) (ibs-ton or 1000 gal)	10,00	10.00				
Ammon'um N (NH <sub>a</sub> -N) (Ibs/ton or 1000 gal)	Complete NH4-N					
Total Organic N (ibs.ton or 1000 gal)		10,00				
Total Phosphata (P₂O₂) (ibs/ton or 1000 gal)	4.00	4.00				
Total Potash (K <sub>2</sub> O) (ibs/ton or 1000 gal)	8.00	8.00				
Percent Solids	12.00	12.00				
PSC Value (Enter analytical or book value)	0.80	D.80				

Manure Analysis 5 Year Running Average

Manure Average for Grop	Small Quantity Manure Group									
Years. 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago				
Manura Report Dale	Book Value	Book Value								
Laboratory Name	Penn Stale Agronomy Guide	Penn State Agronomy								
Manure Type	Other	Other								
Manure Unit (fisition or 1000 gal)	lb/ton	ស្រីសា								
Total Nitrogen (N) (los/ton or 1000 gal)	12,00	12.00								
Ammoréum N (NH <sub>4</sub> -N) (ibsiton or 1000 gal)	Complete NH4-N									
Total Organic N (los/ton or 1000 gal)		12,00								
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (ibs:ton or 1000 g일)	5.00	5.00								
Total Potash (K₂O) (ibs/ton or 1000 gal)	9.00	9.00								
Percent Solids	20.00	20.00								
PSC Value (Enter analytical or book value)	0.80	03.O								

Manure Average for Grop			Alpa	;a		
Years. 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago
Manure Report Date	Book Value	Book Value				
Laboratory Nama	State Conservation Commission	State Conservation				
Manure Type	Other	Other				
Manure Unit (Ibs/ton or 1000 gal)	ib/ton	Johon				
Total Nitrogen (N) (Ibs/ton or 1000 gal)	20.00	20.00				
Ammonium N (NH <sub>2</sub> -N) (fbs/ton or 1000 gal)	Complete NH4-N					
Tolal Organic N (Ibs/ton or 1000 gal)		20.00				
Total Phosphate (P <sub>2</sub> O <sub>2</sub> ) (Ibs.ton or 1000 gal)	3.90	3.90				
Total Potash (K <sub>2</sub> O) (Ioston or 1000 gal)	20.80	20.80				
Percent Solids	65.00	65.00				
PSC Value (Enter analytical or book value)	1.00	1.00	1	a an ann 1997 a th		

App. 4: Crop Yrs. 2019		1			1		1			1			1			
CMUField ID																
Acres		48			48			4.8			48		I	48		
Sof Test Report Data		October 1, 201	8		October 1, 201	18		October 1, 201	18		October 1, 201	8		October 1, 201	8	
Laboratory Name	Spe	ectum Analytic	, inc	Spi	ectrum Analyzo	: Inc	Spe	Sotrum Analyzio	, ina	Spe	Hotom Analytic	, Irc	Spa	ແນກ Anayso	Inc	
Soil Test Levels (Mehich-3 P & K) (Show conversions to ppm in Appendix 10)	ppr1 P 94	rom K 75	рН 60	94	ррт К 75	рН 6.0	ppm P 94	FPm K 75	рн 60	94	ррат К 75	рН 60	94 94	ççm Κ 75	5H 60	
P Index Part A Evaluation		to to All Part A	4	1	to to All Part A	• •	1 6	Is to All Part A		1	A traft ItA of ol		1 1	o to All Part A	•	
Part A Result		N Based		· [ ·	N Based		N Based			N Based			N Based			
Сгор	Estab	Shed Mixed C	kasses	Estet	Visihed Mored C	¥85555	Established Mixed Grasses			Established Mored Grasses			Estab/shad Mixed Grasses			
Pianted Yield		4	ton/A		4	ton/A	4 ton'A		4 ton/A			4 ton/A				
	N	P205	K20	N	P205	K2O	N	P2O5	K2O	N	P2O5	K20	พ	P205	K2O	
PSU Sol Test Recommendation (&/A)	200	0	210	200	0	210	200	٥	210	200	0	210	200	0	210	
User So? Test Recommendation (it/A)				1							1					
Other Nutrients Applied (It/A) (Nutrients applied regardless of manure)	0	0	0	o	0	0	0	0	Q	0	0	0	0	0	0	
P Index Application Method											_					
Double Crop CarryOver N (&/A)	0			0			0			0			0			
Manure History Description Residual Manure N (ib/A)	35	Contruous	dy - Summer rop	o	Continuous C	ly - Summer rop	0	Contrauous C	siy - Summer rep	D	Continuous C	lly - Summer rop	0	Continuous Cr	у - Sutatar Ср	
Legume History Description Residual Legume N (ib/A)	o	No Previous	Year Legume	o	No Previous	Year Leguma	o	No Previous	Year Legume	0	No Previous	Үезг Legume	o	No Previous	Year Leguma	
Net Nutrients Required (R/A)	165	0	210	161	-4	163	160	-5	184	159	-6	160	135	-281	96	
Wanure Group	Femal Alpaca	a - UncoYected		Young Alpac	a - Unoslected	I	Vs'e Alçeca	- Uncollected		Veal Manure	Fal		Veal Manura	Spring		
Application Season: Management (Incorporation, cover crops, etc.)	Grazing ar dur	ry time with nut ing growing se	rient uptake ason	Grazing a dur	nyî me with nut Ing growing se	rient uptake ason	Grazing a: dur	njórma with nư làng growing se	rient uptake ason	Earty Fa'l. winter cri Incorport	Early spring ut op in double on ated after 7 day	fiziation ind. op system is or none	Spring Sp Incorpore	ring or summer tion after 7 day	rutivization- is or nona	
	Total N	NH4-N	Org. N	Total N	1014-11	Org. N	Total N	NH4-N	Org. N	Total N	7884-N	Org. N	Total N	N84-N	Org. N	
Availability Factors (Total It on 1014-11 & Organic 11)	0 20		ĺ	0 20			0 20			0 20			0 20			
Pindex Application Wethod			L	f						İ	J	1				
N Balanced Manute Rate (ton; gal/A)		41	tens/A	1	40	) tons/A		40	tons/A		32,938	g⊴!A		28,003	ge!/A	
P Removal Balanca Manura Rata		15	tons/A		14	tons/A		14	tons/A		932	92!'A		0	ge!/A	
(ton or gal/A; if required by P Index)	Crop P	Rettonal (R/A)	60.0	Crop P	Removal (&/A)	56 0	Crop P	Removal (ib/A)	55.0	Crop P	Renoval (ib/A)	54.0	Crop P	Removal (ib/A)	00	
P Index Value				1												
Planned Manure Rate (ton or gal/A)		1.06	tons/A	1	0.19 tons/A			0.2	tons/A	1	5000	ga#/A		5000	ga!/A	
Nutrients Applied at Planned Manure Rate (ib/A)	4	4 ~	22	1 1	1	4	1	1	4	24	275	84	24	275	84	
Nurient Balance after Manure	161	-4	163	160	-5	184	159	-6	180	135	-281	56	111	-556	12	
Supplemental Fertilizer (4/A)	0	0	0	0	0	0	0	0	0	0	0	0	111	0	12	
P Index Application Method	1	•	1		•		<b>1</b>	•	•							
Final Nutrient Balance (R/A)		[		1				1	I	1	1		0	-556	0	
Vuitple Application		Mutiçle Initia		1	Multiple		1	NuSpe			Vu'içle	•	1	Multiple Final	-	
Vanure Utilized on CMU		5	tons		1	ters		1	tons		24,000	ព្ននៈីហាន		24,000	gations	

				T	<b>.</b>					F					
App. 4: Crop Yrs. 2019		2			2			2			3			3	
CMUERIGID				<u> </u>											
Acres		1.5		1	1.5			1.5			1.9			1.9	•
Sol Test Report Date		October 1, 201	8	1	October 1, 201	8		October 1, 201	8		October 1, 201	8		Dotober 1, 201	8
Laboratory Name	Spe	ະໂນກ Ansiytic	Inc	Spe	Spectrum Analytic, Inc		Spe	ktrum Analytic	Inc	Sçu	cin m Analyi c	, inc	Sce	arum Anayza I	, inc
Sol Test Levels (Mehlich-3 P & K)	FPT1 P	spm K	рH	ppm P	ερπ Κ	tH.	ppm P	ppm K	pH	ppm P	βρπ K	рн	ppm P	SSOUL K	рн 
(Show conversions to ppm in Appendix 10)	85	92	58	85	92	58	65	92	58	65	1 az	58	<u>66</u>	94 	50
P Index Part A Evaluation	13	A the Part A		R	o to All Part A		No to AS Part A		No to Al Part A			No to Al Part A			
Part A Result		N Based			N Based		N Based			N Based			N Based		
Сгор	Established	d Pasture (with	out legume)	Establisher	d Pasture (with	iout legume)	Established Pasture (without legume)			Establishe	d Pasture (with	off leg.(7.8)	Established	S Pasture (with	outlegume)
Planned Yie'd		25	ton/A		2.5	i ton/A		2.5 ton/A		2.5 ton/A				25	ton/A
Dalle 37.4 Brown dive Gift	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P205	K2O	N	P205	K2O
PSU Soli Test Recommendation (IGRA)	125	0	100	125	0	100	125	0	100	125	0	100	125	0	100
User Sol Test Recommendation (b/A)								I		-	l				
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manute)	0	0	0	0	0	0	0	C	0	0	٥	0	0	0	0
P Index Application Method													l		
Double Crop CarryOver N (/b/A)	0	[		0			0			0			0		
Manure History Description Residual Manure N (ib/A)	35	Contrucus	ly - Sunvner rop	0	Contructus	d <b>y - S</b> ummer rop	0	Continuous C	ly - Summer rop	35	Continuous Ci	у - Sutviter Гор	<b>0</b>	Continuous Ci	ly - Summer rop
Legume History Description Residual Legume N (&/A)	0	No Previous	Year Legume	o	No Previous	Үезг Legurxe	0	No Previous	Year Leguma	0	No Previous	Year Legura	o	No Previous	Year Leguma
Net Nutrients Required (&/A)	90	0	100	78	-24	52	55	-73	-35	99	0	100	78	-24	52
Manure Group	V.Ik Cow - Ur	nco%ected		Driving Horse	a - Unco%ected		Winlature Por	ny - Uncollecte	d	Wik Cow - U	nco/lected		Driving Horse	- Unooffected	
Application Season Management (Incorporation, cover crops, etc.)	Grazing ar duri	nytime with nut ing grawing set	rient uptake ason	Grazing ar dur	nytime with nut ing growing se	riant uptake ason	Grazing ai dur	nytime with nut ing growing se	rient uptake ason	Graping a du	h growing set	rient uptake ason	Grezing an duri	lyfime with nub ing growing se	rient uptake ason
· · · · · · · · · · · · · · · · · · ·	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	N84-N	Org. N	Total N	1184-8	Org. N
Avarabity Factors (Total N or INH4-N & Organic N)	0 20			0 20			0 20			0 20			0 20		
P Index Application Method			-	1											
N Balanced Manute Rate (ton; gsl/A)		45	tons/A	1	33	tors/A	I	23	tons/A	1	45	tons/A		33	tons/A
O Percoval Balance Manuza Rate		9	tons/A	1	3	tors/A	1	(	tons/A		9	tons/A		3	tons/A
(ton or gat/A; If required by P Index)	Crop P	Removal ('b/A)	37.5	Crop P	Removal (&/A)	135	Crop P	Removal (W/A)	0.0	Crop P	Renoval (%A)	37.5	Crop P1	Removal (&/A)	13 5
P Index Value				1			1								
Planned Manura Rate (ton or gal/A)	1	5.97	tons/A	1	9.79 tons/A		1	0.88	tons/A		5.97	tons/A		9.79	tons/A
22 theors Applied at Placeed Manure Rate (@/A)	12	24	49	23	49	63	2	4	8	12	24	48	23	49	83
15 triant Balance after Manure	78	-74	52	55	-73	-36	53	-77	-44	78	-24	52	55	-73	-36
Surriamental Fertitres (b/A)	0	0	0		0	0	53	0	0	0	0	t o	0	0	Ū
Distay Application Helbod	ř	i•	I	-h-	ı	· ·		.1	<b></b> `		1	•		<b></b>	
r waars approximited and		t	I	-   ·	I		l		-44	· · · · · · · · · · · · · · · · · · ·			····		
FRID INVERT BASKS (IDA)		11. Andre Jacobia	1	<u>├</u> ──	J Mužicia	i .	<u> </u>	.1 Multiple Final	1 ···	- Witte Initial					
Muspie Application		watpanizal			4012405			401090100	tone		11	lora	19 tops		
Manure Utitzed on CMU		9	KO-15	1		1 1647.5			er:15	i		secta.	I	19	

Appendix 4 Crop & Manure Mgmt. Page 2

App. 4: Crop Yrs. 2019		3				
CMUF#6ID						
Acres		1.9				
Soil Test Report Date		October 1, 201	8			
Laboratory Name	Sp	-chum Analyzic	Inc			
Sof Test Lere's (Merich-3 P & K)	FØR P	ppm K	pH .			
(Show contensions to ppm in Appendix Tu)		92	j 58			
P Index Part A Evaluation		o to All Part A				
Part A Result		N Based				
Сгор	Esteb/she	d Pasture (with	out legune)			
Planned Yield		25	ton/A			
PSU Sol Test Recommendation (2/Å)	N	P2O5	К20			
	125	0	100			
User Soil Test Recommendation (&/A)		<u> </u>				
Other Nutrients Applied (It/A)		0				
Nutients applied regardless of manure)	, v	ľ	Ů			
P Index Application Method	_					
Double Crop CarryOver N (Ib/A)	0					
Vanura History Description Residual Manure N (it/A)	0	Continuous Ci	y - Summer op			
Legume History Description Residual Legume N (ib/A)	٥	No Previous	Үеат Leguria			
Net Nutrients Required (Ib/A)	55	-73	-35			
Wanure Group	Miniature Pox	ny - Unco%ected	3			
Application Season: Management (incorporation, cover crops, etc.)	Grazing ar dur	yî ne with nướ Ing gro <i>ki</i> ng sea	iant uptake Ison			
žvajahite Factore	Total N	NH4-S	Org. N			
(Total N or NH4-N & Organic N)	0 20					
P Index Application Method	_					
N Balahoed Manure Rate (ton; gal/A)		23	tons/A			
P Removal Balance Manute Rate		0	tons/A			
(ton or gaVA; if required by P Index)	Crop P	Retroval (R/A)	0.0			
P Index Value						
Planned Manure Rate (ton or ga!/A)		0,88	tons/A			
Nutrients Applied at Planned Manure Rate (ib/A)	2	4	8			
Nutrient Balance after Markire	53	-77	-44			
Supplemental Fertilizer (/b/A)	53	1 . 1	0			
Pindex Application Method		۱۱	n in			
Final Nutrient Balance (#/A)	0	.77	-44			
Vultiria Aprécation	Muttele Final					
Uanire 1837ed on C331		2 tare				
FOR THE CONTRACTOR OF THE PROPERTY OF THE PROP	1	2	KAL 4			

App. 4: Crop Yrs. 2020		1			1			1			1		1		
CVUF#GID				L	4.0			40			4.8			4.8	
Acres	<u> </u>	48	<b>D</b>		40	0		October 1, 201	8			8		October 1 201	8
Sol Test Report Date		stourn Analytin	0 	500	vitrum Arabitio	lae .	Ste	vite on Analytic	loc	Ste	ctrum Analyzic	inc	Sce	Kinum Analytic	Inc
Laboratory Name		court Majic	. 11/6.	Con P	Roo K	. #10 	toot P	L roo K	rH	rom P	Com K	DR I	rsm P	rsm K	L4
Sof Test Levels (Mehich-3 P & K) (Show conversions to ppm in Appendix 10)	94 94	75	541 60	994 94	75	50	94	75	60	84	75	60	94	75	60
P Index Part A Evaluation	N	A had IA of o		R	o to All Part A		No to All Part A		No to All Part A			No to All Part A			
Part A Result		N Based			N Based		N Based				N Based		N Based		
Сгор	Estab	shed Mired G	185169	Estab	ished Mared G	Rasses	Established Mixed Grasses			Established Mixed Grasses			Established Mixed Grasses		
Planned Yield		4	ton/A	1	4	ton/A	4 ton/A		4 ton'A			4 ton/A			
	N	P2O5	K20	N	P205	К20	N	P205	K2O	N	P2O5	K2O	ุ่ม	P2O5	K2O
PSU Sof Test Recommendation (@A)	200	0	210	200	0	210	200	0	210	200	0	210	200	0	210
User Soil Test Recommendation (@/A)															
Other Nutrients Applied (H/A) (Nutrients applied regardless of manure)	0	0	0	0	D	D	D	0	0	0	0	0	0	0	0
P Index Application Method														Y	
Double Crop CarryOver N (Ib/A)	0			0			0			0			0	ļ	
Vanura History Description Residual Manure N (Ib/A)	35	Continuous Ci	Ny - Sutritter top	0	0 Continuously - Summer Crop		0 Continuously - Summer Crop		0 Continuously - Summer Crop		ly - Summer rop	0 Continuously - Sun Crop		ty - Summer rop	
Legume History Description Residual Legume N (R/A)	0	No Previous	Year Legurte	0	0 No Previous Year Leguma		0 No Previous Year Leguma		o	No Previous	Year Leg.me	0	No Previous	Year Legunte	
Net Nutrients Required (R/A)	165	0	210	161	-4	163	160	-5	184	159	-6	160	135	-231	<del>6</del> 9
Vanure Group	Femal Alpaca	- Unco%ected		Young Alpea	a - Uncollected	I	Male Alpaca	- Uncollected		Veel Nature	Fa'l		Veal Manure	Spring	
AppScation Season, Management (Incorporation, cover crops, etc.)	Grazing an duri	ytme with nut ng growing se	dent uptake ason	Grazing ar dur	nytime with nut ing growing se	rient uptake ason	Grazing ar dur	njêrne with nub Ing growing se	rient uptake ason	Early Fail winter or incorpor	Early spring ut p in double or ded after 7 day	Szation ind. op system: /s or none	Spring Sp Incorpora	ring or summe sion after 7 day	r utivization- is or none
	Total N	NH4-71	Org. N	Total N	1484-88	Org. N	Total N	N84-N	Org. N	Total N	8H4-N	Org. N	Total N	8114-8	Org. N
Aralisbity Factors (Tetal Nier NH4-N& Organic N)	0 20	*		0 20			0 20			0 20			0 20		
P Index Application Method			L	1											-
N Balanced Manure Rate (ton; ga/A)		41	tons/A	]	40	tons/A		40	tons/A		32,958	ga%A		28,008	9¥/A
P Removal Balance Manute Rate		15	tons/A	F	14	tons/A		14	tons/A		932	g⊴/A		0	ça'/A
(ton or gaVA; If required by P Index)	Crop P	Remonal (&/A)	60.0	Crop P	Removal (&A)	56 0	Crop P	Removal (10/A)	55 0	Crop P	Retrival (%/A)	540	Crop P	Remoral (ib/A)	00
P Index Value				1											
Planned Manure Rate (ton or gal/A)		1.06	tons/A	0.19 tons/A			0.2	tons/A		5000	ga‼A		5000	ga/A	
Nutrients Applied at Planned Manure Rate (&/A)	4	4	22	1	1 1 4		1	1	4	24	275	84	24	275	84
Nutrient Balance after Manure	151	-4	163	160	-5	164	159	-6	160	135	-281	96	111	-556	12
Supplemental Fertilizer (&A)	0	0	0	0	0	0	0	0	0	0	0	0	111	0	12
P Index Application Method	· ·	-		1											
Final Nutrient Balance (R/A)			<b></b>			Г			]				0 -556 0		
Multiple Application		Mutple Intel	-		Multiple	-		Mu⁄š¢/e		Muttple			Mutple Final		
Vanure USized on CMU		5	tons	1	1	tors	1	1	tons	24,000 gallons			24,000 gators		

App. 4: Crop Yrs. 2020		2			2		2		3				3		
CMUFieldID													]		
Ages		1.5			15			1.5			1.9		-	1.9	
Scil Test Report Date	_	October 1, 20	8		October 1, 201	8		October 1, 201	8		October 1, 201	8		October 1, 201	18
Laboratory Name	Sp	ctrum Analyza	; Ina	Sp	Korum Aria'yao	, Inc	Spe	ectrum Analytic	ne inc	Sc	ktium Analytic	, Inc	Spe	ktrum An≇y±o	, ind
Soil Test Levels (Mehich-3 P & K) (Show conversions to com in Accendic 10)	ppm P	som K	F44	ppm P	ppm K	pH co	ppm P	ppm K	pH 6.0	ppm P	рот К	pH	6640 B	Fpm K	pH 5.0
Pladae Datt & Evaluation		L YA	1 30	1	ata All Dadt A	50	,	1 74	1	- 0.5	82	1 20	° .	1 97	20
Part A Result		NBased		· · · · · · · · · · · · · · · · · · ·	N Based			N Based			N Based			N Based	
Сгор	Establishe	d Pasture (with	out legane)	Establishe	d Pasture (with	out legane)	Established Pasture (without legume)			Established Pasture (wishout legume)			Established Pasture (without lagume)		
Planeted Yield		2 5	ton/A	1	25	ton/A	2.5 ton/A		2.5 kn/A			25 ton/A			
DCII Col Tool Decommendation (3/4)	н	P2O5	K20	N	P205	K20	N	P2O5	K20	N	P205	K20	N	P205	K20
FOU DUE TEST RECUMPTION (COA)	125	0	100	125	0	100	125	0	100	125	0	100	125	D	100
User So4 Test Recommendation (&/A)								1		1	İ	1			
Other Nuclents Applied (it/A) (Nutrients applied regardless of manuse)	0	0	0	0	0	0	0	C	0	0	0	0	0	0	0
P Index Application Method											•				•
Double Crop CarryOver N (&/A)	. 0			0			0			0			0		
Vanure History Description Residual Manure N (WA)	35	Continuous	∆у - Summer гор	0	Continuous Co	ly - Summer Icp	0	Continuous Ca	у - Suπ≀тин кор	35	Continuous	/у - Summer Кор	0	Continuous C	(у - Summer гор
Legume History Description Residual Legume N (&/A)	0	No Previous	Year Legara	0	No Previous	YearLeg⊔ma	0	No Previous	Year Leguma	0	No Previous	Year Legura	o	No Previous	Year Legura
Net Nutrients Required (R/A)	90	0	100	78	-24	62	55	-73	-35	90	0	100	78	-24	52
Manure Group	Wik Cow - U	collected		Oriving Horse	- Uncollected		Vinisture Por	ny - Uncollecter	t	Wik Cow - U	ico%ected		Oriving Horse	- Uncollected	
Application Season: Management (Incorporation, cover crops, etc.)	Grazing a: d⊔	yžima with nub ng growing se	ient uptake eson	Grazing ar duri	yîme with nut ng grawing sea	iert uptake sson	Grazing an duri	hà tha With Nutr Ng growing sai	tient uptake ason	Grazing ar dur	yî ne with nut ng growing sea	iert uptake asco	Grazing ar duri	y'i mə with nub ng growing sea	iert optake ason
	Tolai N	NH4-N	Org. N	Total N	N84-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total Nor NH4-N & Organic N)	0 20			0 20			0 20			0 20			0 20		
P Index Application Method									<b>4</b>	//./·					1
N Balanced Manure Rate (ton; gel/A)		45	lons/A		33	tons/A		23	tors'A		45	tors'A		33	tons/A
P Removal Balance Manure Rate		9	tons/A		3	tons/A	<b>1</b>	0	tors/A		9	tons/A		3	toos/A
(ton or gs/A; if required by P Index)	Crop P	Removal (its/A)	37.5	СкерР	(A'&) Isrones	135	Crop P f	Remonal (R/A)	0.0	Crop P	Removal (ib/A)	37.5	Crop P f	(a/A) Isroma	135
P Index Value															
Planned Manure Rate (ton or gal/A)		5.97	tons/A	9.79 tons/A			0.88	tons/A		5.97	tons/A		9.79	tons/A	
Nutriends Applied at Planned Manure Rate (ib/A)	12	24	48	23	49	88	2	4	8	12	24	48	23	49	88
Nutrient Balance after Manute	78	-24	52	55	-73	-36	53	-77	-44	78	-24	52	55	-73	-36
Supplemental Fertilizer (it/A)	0	0	0	0	0	0	53	¢	٥	0	0	0	0	0	0
P Index Application Method															
Final Nutrient Balance (北A)							0	-77	-44						
Vutiple Application		Mutple Initial			Mutple			Nuʻspla Final			Multiple Initial			Muʻsple	
Vanure Utilized on CVU		9	toos		15	tora		1	tors		11	tons		19	tons

App. 4: Crop Yrs. 2020		3	
CVUFIERID	1		
Acres		19	
Sof Test Report Date		October 1, 201	8
Leboratory Name	Spe	ktinim Analytic	Inc
Sof Test Leve's (Mehich-3 P & K)	Prm P	¢çm K	t41
(or on conversions to part in supportion 10)	· · · · · · ·	92	58
Pinder Part A Evelvetion	13	APAGAGO	
Part A Result		N Based	
Сгор	Establened	1 Pastine (with	ont leðnure)
Ranned Yield	ļ	25	ton A
PSU Sol Test Recommendation (@/A)	พ	P205	K20
	125	0	100
User Still Test Recommendation (&A)			
Other Nutrients Applied (Ib/A)	0	D	o
(Nutrients applied regardless of manure)	· ·	•	
P Index Application Method			
Double Crop CarryOver N (ib/A)	0	1	
Manure History Description Residual Manure N (IVA)	0	Continuous Ci	у - Summer юр
Legume History Description Residual Legume N ( <i>Ib</i> /A)	C	No Previous	Yeari.eguma
Net Nutrients Required (R/A)	55	-73	-36
Manute Group	Winlature Por	ay - Unco?ected	1
Application Season: Management (Incorporation, cover crops, etc.)	Grazing ar d <i>s</i> i	ng growing set	ient optake 1900
	Total N	N944-N	Org. N
(Total N or NH4-N & Organic N)	0.20		
P Index Application Method			
N Balanced Manure Rate (ton; gal/A)		23	tons/A
P Removal Balance Manure Rate		0	tons/A
(ton or gal/A; if required by P index)	Crop P I	Removal (%A)	00
P Index Value			
Planned Manure Rate (ton or gs//A)		88.0	tons/A
Numenta Arceled at Planned Manura Rate (b/A)	2	4	8
Nutrient Balance after Manure	53	-77	-44
Surgiemental Fedőzer (8/A)	53	0	0
Pindex Application Method	1	1	·
Final Nitratt Balance (0/A)	· · · · · · · ·	_77	
Naria Andrafta		Midda Deel	
waape Agge62000	· [	ie dispromitation in dispromitation	
varure utrized on CMU	1	2	FOLE

	App. 4: Crop Yrs. 2021		1			\$			1			1		1		
Acres       48       48       48       48       48       48       48       48       48       48       48       48       58       48       58	CMU#:#810															
Sol Test Resonancial for the solution of the soluticon of the solution of the solution of the solution of t	Acres		48			48		1	48			4.8		1	48	
	Soil Test Report Date		October 1, 201	18		October 1, 201	18		October 1, 20	18		October 1, 20	18		October 1, 201	18
Sol Test levels (Minhold-3F Kd) (Som conversion by min A genetic A train (Som conversion by min A genetic A train a train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som conversion by min A genetic A train (Som	Laboratory Name	Sp	ctrum Analyzo	s, Inc	Sp	ectrum Analysis	e, íne	Sp	ectrum Analyti	e, Ine	S;	ອະຫາດ Ana'ງກໍ	c, Inc	Sp	ectum Analytic	o, Inc
Bible contrained by gam in Agenda (10)         94         75         60         96         75         60 <td>Soil Test Leva's (Mehlich-3 P &amp; K)</td> <td>ppm P</td> <td>ppm K</td> <td>р<del>н</del></td> <td>ppra P</td> <td>ppm K</td> <td>рH</td> <td>ppm P</td> <td>sson K</td> <td>pH</td> <td>I ppm P</td> <td>ррт К</td> <td>рн</td> <td>F\$P P</td> <td>ppm K</td> <td>РA</td>	Soil Test Leva's (Mehlich-3 P & K)	ppm P	ppm K	р <del>н</del>	ppra P	ppm K	рH	ppm P	sson K	pH	I ppm P	ррт К	рн	F\$P P	ppm K	РA
Index fails All Part A. Part	(Show conversions to ppm in Appendix 10)	94	75	6.0	. 94	75	60	94	75	60	84	75	60	94	75	60
Part A Real-A       Image: Top Decision of the statistication decision of the statistication decision of the statistication decision of the statistication decision of the statistication decision decision of the statistication decision decision of the statistication decision decos decision decision decision decision decision decis	P Index Part A Evaluation		to to All Part A		1	lo to Al Part A		1	to to All Part A		1 !	lo to All Part A			lo to All Part A	
CrOp       Etablehed Mixed Grasses         User Softee Mighened Mixed Grasses       0	Part A Result		N Based			N Based			N Based			N 8ased			N Based	
$\begin{split} & \text{Pair red} Vield & \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad $	Сгор	Estat	Ashed Mixed (	Rasses	Estal	Established Mored Grasses		Established Mixed Grasses			Established Mired Grasses			Established Mired Grasses		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Planned Yie'd		4	ton/A		4	ton/A			ton/A			4 ton/A		4	ton/A
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	PS11 Sol Test Percent and ston ( 5/6)	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	11	P205	K2O	N	P205	K20
User 80 Test Reconnendation (6A) Other 1000000 (CRA) Charle Appeld (CRA) (CRA) (CRA) (CRA) (CRA)Image 1 CRA (CRA) (CRA)Image 1 CRA (CRA)Image 1<	and on remners the description	200	0	210	200	0	210	200	0	210	200	0	210	200	0	210
Other Katerick Apple 64 (WA) (Waterick apple 64 (WA))         0	User Sol Test Recommendation (R/A)			1							1					
Index Application Method       Image: Section	Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	Ũ	o	0	0	0	0	0	o
Double Crop Carry Over N (leX)       0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0 $\cdot$ 0       0	P Index Application Method						•						•	1	4	
Warrare History Description       35       Continuously - Summer Crop       0       Continuously - Summer 	Double Crop CarryOver N (ib/A)	0	1		0	1	· ·	0			0			0	Τ	
Leguns History Description Residual Leguns N (k/A)         0         No Previous Year Leguns         0         No         N	Vanura History Description Residual Manura N (16/A)	35	Continuous C	dy - Summer rop	0	Cor/inuous C	ку - Summer кор	0	Continuous C	sty - Summer rop	C	Continuous	sly - Summer Rop	0	Continuous C	sly - Summer rop
Net NV/Fants Required (b/A)       165       0       21D       151       4       163       160       5       184       159       -6       100       135       -281       96         Varuare Group       Femal Appace - Uncollected       Young Appace - Uncollected       Vale Appace - Uncollected       Val	Leguma History Description Residual Leguma N (Ib/A)	0	No Previous	YearLegume	0	No Previous	Year Leg.me	٥	No Previous	Year Legume	o	No Previous	Year Legume	D	No Previous	Year Legume
Variar Group       Final Algoria - Uncodeded       Variar Agrice - Uncodeded       Vale A face a - Uncodeded - Uncode - U	Net Nutrients Required (ib/A)	165	0	210	161	4	E31	160	-5	164	159	-6	160	135	-281	96
Application Session: Management (Incorporation incorporation incorporating incorporation incorporation incorporation incorpo	Vanure Group	Femal Alpaca	- Unco%ected		Young Alpeo	a - Unco?ected	ł	Va'e A'paca	- Uncollected		Veal Marure	Fall		Veal Manure	Spring	
Arababity Factors       Total N       NH4-N       Org. N       Total N       NH4-N       Org. N       Total N       NH4-N       Org. N       Total N       NH4-N       Org. N $Lral bit ty Factors       0.20       0.$	Application Season: Management (Incorporation, cover crops, etc.)	Grazing ar dur	nyárte with nut ing gra <i>ki</i> ng se	rient uptake ason	Grazing al dur	nyî me with nut ing growing sei	rient uptake ason	Grazing ar dur	nyime with nut ing growing se	rient uptake 3500	Early Fail: 1 winter cro Incorpora	Early spring ut op in double or sted after 7 day	èzaton ind. op system: ys or none	Spring Sp Incorpora	ന്നg or ടാനനം ition after 7 da;	r u%zaton- ys or none
National Products         0.20 <td>*</td> <td>Total N</td> <td>NH4-N</td> <td>Org. N</td> <td>Total N</td> <td>8884-8</td> <td>Org. N</td> <td>Total N</td> <td>884-N</td> <td>Org. N</td> <td>Total N</td> <td>NH4-N</td> <td>Org. N</td> <td>Total N</td> <td>NH4-N</td> <td>Org. N</td>	*	Total N	NH4-N	Org. N	Total N	8884-8	Org. N	Total N	884-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
P Index Application Method         Index	(Total Nor NH4-N & Organic N)	0 20			0 20			0 20			0 20			0 20		
It Balanced Manure Rate (ton; gal/A)         41 tons/A         40 tons/A         40 tons/A         32 583 gal/A         28000 gal/A           P Removal Balance Manure Rate (ton or gal/A)         15 tons/A         14 tons/A         14 tons/A         982 gal/A         0 gal/A           It Removal Balance Manure Rate (ton or gal/A)         Crop P Removal (b/A) 60.0         Crop P Removal (b/A) 55.0         Crop P Removal (b/A) 54.0         Crop P Removal (b/A) 0.0           P Index Value         Crop P Removal (b/A) 60.0         Crop P Removal (b/A) 55.0         Crop P Removal (b/A) 54.0         Crop P Removal (b/A) 0.0	P Index Application Method								•						·	
P Removal Balance Manue Rate (ton or gs/A); if regulared by P Index)         15 tons/A         14 tons/A         14 tons/A         982 gs/A         0 gs/A           Crop P Removal (b/A) 60.0         Crop P Removal (b/A) 66.0         Crop P Removal (b/A) 55.0         Crop P Removal (b/A) 54.0         Crop P Removal (b/A) 60.0           P Index Value	H Batanced Manure Rate (ton; gal/A)		41	tors/A	1	40	tors/A		40	tons/A		32,988	3 g≇/A	I	28,008	gs!/A
Item or g3/A, If reg/red b/ P Index)         Crop P Removal (b/A) 60.0         Crop P Removal (b/A) 56.0         Crop P Removal (b/A) 55.0         Crop P Removal (b/A) 54.0         Crop P Removal (b/A) 0.0           P Index / alue	P Removal Ralance Manure Rate		15	toos/A	1	14	tons/A	· · · · · · · · · · · · · · · · · · ·	14	tons/A		232	? g <u>æ</u> !/A		0	os!/A
P Index Value	(ton or gs)/A; if required by P index)	Crop P J	Removal (&A)	60.0	Crco P	Renoval (ib/A)	56.0	Crep P	Removal (@/A)	55.0	Crop P I	Removal (R/A)	54.0	Crop P	Removal (%/A)	0.0
	P lodex Value												·			
Parced Market Bate (top of pai/A) 1.06 top v/A 0.19 top v/A 0.2 top v/A 5000 pai/A 5000 pai/A	Planned Marsire Rate (fon or na'/A)	-	1.06	toos/A		0.19 tons/A			0.2	tons/A		5000	oa//A		5000	o.a∜A
	Nifranie Arriad at Ranned May ve Rate (b/ā)	4	4	22	1	1 1	4	1	1	4	24	275	84	24	275	84
National Parking a Star Manyre a 161 - 4 158 160 - 5 164 159 -6 160 135 - 204 96 111 - 556 12	National Balance after Manure	161	-4	163	160	<u> </u>	184	159		180	135	-281	96	111	-5*6	12
	Secretariantal East Trace (1/18)	0		0			0	0	<u> </u>	0			1 <u>.</u>	1 111	0	12
	Pladay Serieston Mathed		L °	I Ť	+ Ť	<u> </u>	F		I	I	Ť	Ĩ	1	t		1
	n marka separation in the data Time Notice to Delegan (In 16)	-				I	F		I.	I	ł	F	1	f		1 6
Une Recent Desired Virgin and Annual Milleria Mi	n die mit and DE Brite (NPA)	1	l 1808nia loitini			1 Milliola		I	I Muttole	1	ł	I Multinia	1		Multiple East	ł.,
ana portana ana portana	accept opposition	+	a a apa na an E	tore	1	1 1	tore	I	1	topt		24 000	l estines	24.000 mm/sets		

App. 4: Crop Yrs. 2021	]	2		2			2			з			3			
CMUFIERIO	<u> </u>			ļ				1.5			10			19		
Acres	.l	1.5	-	-	1.5	0		13	8		0ctober 1, 201	8		Detector 1, 201	8	
Sol Test Report Date	· · · · · ·	October 1, 201	B		Uctober 1, 201			UCLOCHET, 201	lan.		uthum Anal-ter	line .	Sra	chum Anal-So	inc.	
Laboratory Nama	Spe	ະຕາມາາ Analy24	, inc	5p	ecourn Anaiyac	ine T u	sp	KUUM Arayto	100			(#/~ ]	Doort P	ron K	сн.	
Sol Test Levels (Mehlich-3 P & K) (Show conversions to ppm in Appendix 10)	65	92	58	50m P 65	92	58	65	ερπ κ. 92	58	65	92	58	85	92	58	
P Index Part A Evaluation	N	o to All Part A		7	io to Al Part A		ħ	to Al Part A		N	b to All Part A		6	o to All Part A		
Part A Result		N Based			N Based			N Based			N Based			N Based		
Cop	Established	d Pasture (with	out legume)	Establishe	d Pasture (with	out legume)	Estabishe	d Pasture (with	out (egume)	Establishe	d Pasture (with	out leguna)	Establishe	l Pasture (with	outlegume)	
Parred Vield		25	ton/A		25	i tən/A	2.5 ton/A			25	i too'A		25	ton/A		
	N	P205	820	N	P205	K20	N	P205	K20	N	P205	K2O	N	P205	K2O	
PSU Sol Test Recommendation (ib/A)	125	0	100	125	0	100	125	0	100	125	0	100	125	0	100	
User Soll Test Recommendation (rb/A)																
Other Nutrients Applied (Ib/A) Nutrients applied reparaless of manufa)	0	0	0	0	0	0	0	0	0	D	0	0	0	0	0	
P Index Application Method														·	,	
Double Crop CarryOver N (#A)	0			0	1		0			0			0			
Vanure History Description Residual Manure N (Ib/A)	35	Continuous C	ily - Su⊤i⊤er rop	0	Continuous C	sly - Summer rop	0	Continuous C	ку - Summer гор	35	Continuous C	ily - Summer rep	0	Continuous	у - Summer кор	
Leguma History Description Residual Leguma N (ib'A)	0	No Previous	Year Legume	0	No Previous	Year Legura	o	No Previous	Year Leguma	0	No Previous	Year Legutva	0	No Previous	Year Leguma	
Net Nutrients Required (R/A)	90	0	100	78	-24	52	55	-73	-36	90	0	100	78	-24	52	
Varute Group	Mik Cow - Ur	nco%ected		Oriving Hors	e - Unco"ected		Miniature Po	ny – Uncořecte	d	Mik Cow - U	ncollected		Driving Horse	- Uncollected		
Application Season: Management (Incorporation, cover crops, etc.)	Grazing ar dur	njäme with Bul ing growing se	rient optake ason	Grazing a d.t	ny time with nut ring growing se	rient uptake ason	Grazing a du	nytime with nut ring growing se	rient uptake ason	Grazing ar dur	nyî me with nut 'ng growing se	rient uptake ason	Grazing ar dur	rytime with nut ing growing se	rient uptake 8507	
	Total N	NH4-N	Org. N	Total N	6H4-N	Org. N	Total N	NH4-N	Org. N	Total N	884-8	Org. N	Total N	KH4-0	Org. N	
Avaiabity Factors (Total N or 10H4-N & Organic N)	0 20	1		0 20			0 20			0 20			0 20			
P Index Application Method		1								[						
N Balanced Manute Rate (ton; gaVA)		4:	i tons/A		33	8 tons/A		23	tors/A		4	5 toos/A		33	tons/A	
P Removal Balance Manure Rate	·		) tons/A		3	3 tons/A		C.	) tons/A		9	) tons/A		3	tons/A	
(ton or gaVA; If required by P Index)	Crop P	Renoval (t/A	37.5	Crop P	Removal (b/A)	) 135	Crop P	Removal (45/A	00	Crop P	Removal (R/A)	37.5	Crop P	Removal (%/A)	135	
P Index Value																
Planned Manure Rate (ton or gal/A)		5.97	tons/A	9.79 tons/A			0.88	tons/A		5.97	tons/A	<u> </u>	9.79	tons/A		
Nutrients Applied at Planned Manure Rate (to/A)	12	24	4B	23 49 88		2	4	8	12	24	43	23	49	88		
Mitrient Balance after Manure	78	-24	52	55	-73	-36	53	-77	-44	78	-24	62	55	-73	-35	
Supplemental Fertilizer (ib/A)	0	0	0	0	0	0	53	0	0	D	0	0	0	0	0	
P Index Application Method		•				•				1						
Final Nutrient Balance (-b/A)	1	1					0	-17	-44							
Wuttple Application		MutpleInts	1		Mu/tp/e			Mu'tp'e Fina	'	Mutiple Initial			Muttple			
Manure Utilized on CMU			) teris		15	5 tons	İ	1 tons		11 tons			19 ters			

App. 4: Crop Yrs. 2021		3							
CMUFIERID									
Acres		19							
Sol Test Report Data		October 1, 201	8						
Laboratory Name	Sp	ectrum Arvahrik	, Inc						
Soil Test Leve's (Mehion-3 P & K)	ррп Р	ppm K	¢4						
(Show conversions to ppm in Appendix 10)	85	92	58						
P Index Part A Evaluation	t t	to to All Part A							
Part A Result	N Based								
Сгор	Established Pasture (without legume)								
Planned Yie'd		i ton/A							
	N	P2O5	K20						
PSU Sof Test Recommendation (&A)	125	0	100						
User Soil Test Recommendation (&/A)									
Other Nutrients Applied (k/A)		·							
Nutrients applied regardless of manure)	0	0	0						
P Index Application Nethod									
Double Crop CarryOver N (&/A)	0								
Vanure History Description	-	Contribute	Y - Summer						
Residual Manure N (E/A)	U	c	rop						
Legume History Description Residual Legume N (&/A)	o	No Previous	Year Legunx						
Ret Nutrients Required (4/A)	55	-73	-38						
Vanure Group	Wriviature Pos	ny – UncoXecter	5						
Application Season: Management (Incorporation, cover crops, etc.)	Grazing ar dur	nytime with nut ing growing set	ient uptake 1500						
Luzzahija: Cadem	Total N	NH4-R	Org. N						
(Total N or 1344-N & Organic N)	0 20								
P index Application Method									
11 Batanced Manure Rate (ton; gal/A)		23	tons/A						
P Removal Balance Manure Rate		0	tons/A						
(ton or gal/A; if required by P Index)	Crop P	Remonal (Ab'A)	00						
P Index Value									
Planned Manure Rate (ton or gal/A)		0,88	tons/A						
Nutrients Applied at Planned Manure Rate (tr/A)	2	4	8						
Nutrient Balance after Manuze	53	-77	-44						
Supplemental Fertilizer (@/A)	53	0	0						
Pinder Application Method	+		-						
Enal M thart Ralance (6/4)	0		-11						
n new macrosol best destroy	Muĭola Elosi								
	MutoreFinal								
varure utilized on CVU	2 tons								

Appendix 5 - P Index	No P Inde	Go to NMP Index			
Cron Yrs 2019	Pennsylvania P Inde	ex Version 2			Go to App 4 Input
PART A: SCREENING TOOL CMU/Field ID	I chilojitoria i indi		PART A: SCREENING	TOOL	CMU/Field ID
Is the CMU in a Special Protection watershed?		Is the CMU in a Speci	al Protection watershed?		
A significant farm management change as defined by Act 387		Is there a significant fa	arm management change as d	efned by Act 38?	If the answer is Yes to
Soil Test Mehlich 3 P oreater than 200 pom P?		Is the Soil Test Mehlic	h 3 P oreater than 200 pom P	? (enter soil test value in pom P)	any of these questions
Contributing Distance from CHILLIG receiping water <150 8 2		Is the Contributing Dis	tance from this CMI I to receive	ing water less than 150 ft 2	Part B must be used.
to minimum postance non concerning water <100 h. r		la wieter manue anali	nation planned for this field 2		
Is writter manure application planned for this field 7	-	Due D ladeu Det Due	Catori planied for this field ?	a all Dad A quartices )	
RUN P Index Part B voluntarily? (No to all Part A questions.)		Run P Index Part B VC	Kuntaniyr (Answers are Not	all Part A quescions. )	
PART B: SOURCE FACTORS: Menion 3 Soil Test P (ppm P)			Menters Son restricts	(17)	
Soli fest Rating = 0.20" Menlich 3 Soli fest P (ppm P)	-			and the second second second second second second second second second second second second second second second	Fratient Date DOOFfram
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0.2	04	0.6	0.8	10
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	Placed or injected 2" or more deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	Incorporated >1 week or not incorporated following application in Nov March	Surface applied to frozen o snow covered soil
SUPPLEMENTAL P FERTILIZER					Fertilizer P (ib P2O5/acre)
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	08 Incorporated >1 week or not incorporated following application in Nov March	10 Surface applied to frozen o snow covered soil
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod				Set 19 Barrie
MANURE P RATE					Manure P (ib P205/acre)
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen o snow covered soil
P SOURCE COEFFICIENT	Re	fer to: Test results for F	Source Coefficient OR Book	values from P Index Fact Shee	t Table 1
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeff	icient			
Source Factor Sum					
PART B: TRANSPORT FACTORS			Sallana (holomati	2	
EROSION		8	Son Loss (Enradely	,	
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 Drainage Class is Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Paterned
CONTRIBUTING DISTANCE	0 > 500 ft	2 350 to 500 ft	4 200 to 349 ft	6 100 to 199 ft: OR < 100 ft: with 35 ft: buffer	9 <sup>2</sup> < 100 ft.
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance			
MODIFIED CONNECTIVITY	50 ft. R APPLIES TO	0.85 parian Buffer D DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT
Transport Sum x Modified Connectivity / 24					
P Index Value = 2 x Source x Transport					
ow 50 or loss	Medium (2016-78	High: 80 to 99			
Ndrogen based management	Nitrogen based	Phosphorus limited to cr	op removal	Very High: 100 or greater No Phosphorus applied	

OR rapidly permeable soil near a stream
 'Briter does not apply to fields receiving manure with a 35 ft buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Version 6.3 - August 2018

Appendix 5 P Index Page - 1

Appendix 5 - P Index	No P Ind	ex Part B fi	elds in this Pl	an	Go to NMP Index						
Crop Yrs. 2020	Pennsylvania P Index Version 2  NING TOOL CMU/Field ID  PART A: SCREENING TOOL										
PART A: SCREENING TOOL CMU/Field ID		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PART A: SCREENING	TOOL	CMU/Field ID						
Is the CMU in a Special Protection watershed?		Is the CMU in a Speci	al Protection watershed?								
A significant farm management change as defined by Act 38?		Is there a significant f	arm management change as c	lefined by Act 382	Willia and starts Martin						
Soil Test Mehlich 3 P greater than 200 pom P?		Is the Soil Test Mehlio	th 3 P oreater than 200 nom P	2 (enter soil test value in nom P	in the answer is tes to						
Contributing Distance from CMLLto receiving water < 150 ft 2		Is the Contribution Dis	tance from this CHI He receiv	ion water lace then 150 8 2	Part B must be used						
Is winter manufe application planned for this field 2		la victor monute cost	salice non uns caro to recen	ang water less than 100 it.?	art billion be used.						
Pup D leday Dad D unbudach/2 (No to all Dad A quastiens )		is writer manure appl	cation planned for this held ?								
PART B: SOURCE EACTORS: Wahlah 2 Sal Tast B (com P)		IRON P INDex Part B VO	Nuntaniy? (Answers are Not	lo all Part A questions. )							
Soil Test Rating = 0.20* Mehlich 3 Soil Test D (nom D)			wenter 3 oor rest P (pp	are)							
COTHIEST Rating = 0.20 Memories Sol fest P (ppm P)											
FERILIZER P APPLIED REGARDLESS OF MANURE (Stater or other)	0.2	0.1	0.0		Fertilizer P (ib P2O5/acre)						
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	Placed or injected 2" or more deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	08 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil						
SUPPLEMENTAL P FERTILIZER					Fertilizer P (/b P205/acre)						
	02	0.4	0.6	0.8	1.0						
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	Placed or injected 2" or more deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	Incorporated >1 week or not incorporated following application in Nov March	Surface applied to frozen or snow covered soil						
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod										
MANURE P RATE					Manure P (ib P205/acre)						
MANURE APPLICATION METHOD <sup>3</sup>	0 2 Placed or injected 2" or mora deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil						
P SOURCE COEFFICIENT	Rel	er to: Test results for F	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1						
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeffi	clent									
Source Factor Sum					C. W. ST. S.						
PART B: TRANSPORT FACTORS											
EROSION			Soll Loss (torvacraryr	)							
RUNOFF POTENTIAL	0 Drainaga Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well Moderately Well	6 Drainage Class is Somewhat Poorly	8 Drainaga Class is Poorly/Very Poorly						
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned						
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft	4 200 to 349 ft	6 100 to 199 ft OR < 100 ft with 35 ft buffer	9 <sup>2</sup> < 100 ft						
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contribu	uting Distance									
MODIFIED CONNECTIVITY	50 ft R APPLIES TO	0 85 parian Buffer DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT						
Transport Sum x Modified Connectivity / 24			CONTRACTOR OF CONTRACTOR								
P Index Value = 2 x Source x Transport	1										
Low 59 or less	Mercure 40 to 78	High: 80 to 99		designed and the day of the second							
Ntrogen based management	Controgran bestell management	Phosphorus limited to cri	op removal	Very High: 100 or greater No Phosphorus applied							

1 OR rapidly permeable soil near a stream 2 '0' factor does not apply to fields receiving manure with a 35 ft. buffer. 3 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Version 6.3 - August 2018

Appendix 5 P Index Page - 1

Appendix 5 - P Index	No P Inde	Go to NMP Index			
Crop Yrs 2021	Peonsylvania P Inde	ex Version 2			Go to App 4 Input
PART A: SCREENING TOOL CMU/Field ID	i chilopitana i ma		PART A: SCREENING T	OOL	CMU/Field ID
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	al Protection watershed?		
A significant farm management change as defined by Act 38?		Is there a significant fa	erm management change as d	efined by Act 38?	If the answer is Yes to
Soil Test Mehlich 3 P greater than 200 pom P?		Is the Soil Test Mehlic	h 3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,
Contributing Distance from CMULID receiving water <150 ft 2		Is the Contributing Dis	tance from this CMU to receiv	ing water less than 150 ft.?	Part B must be used.
le wister manure application planned for this field 2		ls winter manure annli	cation planned for this field ?	3	The states
Due D Index Ded B volucion planted for this field ?		Ruo D Ioday Dad B vo	Juntarity2 (Answers are No.1	o all Pad A questions )	
Run P Index Part B voloniany? (No to an Part A questions.)		NOTE INDEX Fait D 10	Mableb 3 Sol Tast P (co	mP)	
Soil Test Pating = 0.205 Mablich 3 Soil Test P (nom P)		and the particular	a second a second a second a second a second a second a second a second a second a second a second a second a s	,	A CONTRACTOR OF A CONTRACT
Son rest Rating - 0.20 mennen s son rest r (ppin r)	1				Fedilizer P (Ib P205/acca)
FERTILIZER P APPLIED REGARDLESS OF MANORE (Stater of other)	02	0.4	0.6	0.8	1.0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	Placed or injected 2" or more deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	Incorporated >1 week or not incorporated following application in Nov March	Surface applied to frozen or snow covered sol
SUPPLEMENTAL P FERTILIZER					Fertilizer P (ib P205/acre)
	02	0.4	0.6	0.8	10
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	Placed or injected 2" or more deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	Incorporated >1 week or not incorporated following application in Nov March	Surface applied to frozen or show covered soil
Fertilizer Rating = Fertilizer Rate x Fertilizer Application M	ethod				
MANURE P RATE					Manure P (ib P205/acre)
MANURE APPLICATION METHOD	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil
P SOURCE COEFFICIENT <sup>3</sup>	Re	fer to: Test results for F	Source Coefficient OR Book	values from P Index Fact Shee	t Table 1
Manure Rating = Manure Rate x Manure Application Metho	d x P Source Coeff	icient		at the sent that	Sec. Marine
Source Factor Sum		Constant of the owner of the		And the second second	
PART B: TRANSPORT FACTORS			C. II Andread		
EROSION			Soli Loss (Loradia)	,	
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 Drainage Class is Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Paterned
CONTRIBUTING DISTANCE	0 > 500 ft	2 350 to 500 ft	4 200 to 349 ft	6 100 to 199 ft. O.R < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance			
MODIFIED CONNECTIVITY	50 ft. R APPLIES TO	0.85 iparian Buffer D DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT
Transport Sum x Modified Connectivity / 24				instantin first	
P Index Value = 2 x Source x Transport				Section 2 and 12	
PA-CONT	Medium @ to 79	High 80 to 99		Charles The States Street	
Low 35 to ease Mirogen based management	Mitrogen based management	Phosphorus limited to cr	op removal	Very High: 100 or greater No Phosphorus applied	

OR repidy permeable soil near a steam
 '9' factor does not apply to fields receiving manute with a 35 ft, buffer.
 Error Note: if there is a manute or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Version 6.3 - August 2018

Appendix 5 P Index Page - 1

## Appendix 6 Manure Management

### Date of Site Evaluation: September 25, 2018

### Statement Documenting Areas Evaluated During Site Evaluation

List and clearly identify each of the specific areas evaluated.

The following areas were evaluated: veal barn, concrete manure storage tank, mortality compost pile, horse barn, pastures, horse manure temporary stacking area, farmstead

#### Identification of Inadequate Manure Management Practices and Conditions List of each specific inadequate manure management practice or condition identified.

The manure gutter gravity transfer was overflowing with manure at the time of the site visit due to excessive rain and a lack of importing acres for manure application causing manure to fill the storage tank past its freeboard requirement. Veal manure was pooling outside the southwestern side of the veal barn due to the over flow. The fence around the top of the concrete manure storage tank has rusted. There were holes in several locations in the fence.

#### **BMPs to Address Manure Management Problem Areas**

List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above.

Mr. Stoltzfus changed the management of the manure storage by obtaining a new manure importer that is able to take veal manure in the spring and fall on a consistent basis. The new manure importer is included in Appendix 8 of this plan. New fence (382) will be installed around the top of the manure storage tank.

## Appendix 7 Stormwater Control

#### Date of Site Evaluation: September 25, 2018

## Statement Documenting Areas Evaluated During Site Evaluation

List and clearly identify each of the specific areas evaluated.

The following areas were evaluated: hay field 1, pasture fields 2 and 3

### Identification of Critical Runoff Problem Areas

List of each specific critical runoff problem area identified.

No critical runoff problem areas were identified at the time of the site visit.

### **BMPs to Address Critical Runoff Problem Areas**

List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above.

None

# Appendix 8 Importer/Broker Agreements & NBSs

Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan.
# **Exporter/Importer Agreement** Manure Used For Agricultural Land Application

Developed consistent with the PA Nutrient and Odor Management Act Program

- 1) This agreement is entered into on <u>September 25, 2018</u>, by <u>Samuel Stoltzfus</u> (the "exporter") who will supply manure, and <u>Stoltzfus Farms</u> (the "importer"), who will receive the manure from the exporter.
- 2) The purpose of this agreement is to set forth the mutual responsibilities and understanding of the parties with respect to the export of manure from the exporter to the importer.
- 3) The exporter is located at (county, twp, and address): <u>Northumberland County, Delaware Township</u> <u>16221 SR405, Watsontown, PA 17777</u>
- 4) The <u>exporter</u> will, as the supply of manure allows, provide the following amounts of manure during the seasons outlined below:

<u>Tons of N/A (species)</u> manure, per season: Spring <u>0 tons</u> Summer <u>0 tons</u> Fall <u>0 tons</u> Winter <u>0 tons</u>

#### Gallons of Veal manure, per season:

Spring up to 101,600 gal Summer O gal and Fall up to 101,600 gal Winter O gal

Total planned manure exported: (supply of manure may be less than what is planned) Tons of <u>N/A</u> (species) manure: <u>0 tons</u> Gallons of <u>Veal</u> manure: <u>up to a total of 203,200 gallons per year</u>

If multi-species are planned, please add additional lines:

- 5) The <u>importer's</u> location and other relevant information as it relates to this manure export, is as follows (maps indicating the location of importing fields must be attached to the supporting Nutrient Balance Sheets if manure is to be land applied at the importing site):
  - a) Phone number: 570-713-5929
  - b) County(s): Union County
  - c) Address: 1535 Col. John Kelly Road, Lewisburg, PA 17837
  - d) Township(s): <u>Kelly Township</u>
  - d) Owner(s) of the property receiving manure: Elvin Stoltzfus
  - e) Total cropland acres managed by the importer: 2,500 acres
  - f) Number and type of animals raised by the importer: <u>5 horses</u>, <u>2 donkeys</u>, <u>1 sheep</u>
  - g) Number of acres available for this imported manure: 25.4 acres
  - h) Other manures (type, amount) imported to the site AND/OR utilized on the site: (Note- this would include manure that is generated on the site by the importers animals, etc.) None
    - If other manure is generated, imported and/or utilized, is it applied to the same acres as indicated in item "g" above (relating to "acres available"): <u>N/A</u>
    - If other manure is generated, imported and/or utilized, is it applied during the same season as the imported manure: <u>N/A</u>

- 6) The exporter will use a Manure Export Sheet to record all manure exported to the importer. These Manure Export Sheets are available from the county conservation district or the State Conservation Commission. Computer generated forms other than the manure export sheet may be used if they contain the same information as, and are reasonably similar in format to, the forms available from the State Conservation Conservation Commission or the conservation district.
- 7) Records relating to the export of manure shall be prepared by the exporter in accordance with the following requirements of the Nutrient and Odor Management Act regulations:
  - a) A Manure Export Sheet shall be used to document all manure exports for their records
    - A copy of the Manure Export Sheet shall be provided to the importer
    - A copy of the Manure Export Sheet shall be retained on site by the exporter
  - b) When the exporter (or someone working for, or contracted by the exporter) applies the exported manure, the exporter shall maintain the following exported manure records:
    - Application dates, areas, rates and methods
  - c) Records shall be maintained by the exporter for a minimum of 3 years
  - d) A manure export informational packet (as supplied by the conservation district or State Conservation Commission) shall be provided to the importer by the time of the manure export. This information only needs to be provided once to the importer.

The manure export informational packet must include the following:

- i. Exported Manure Informational Packet Guidance Sheet
- ii. Nutrient Management Planning an Overview (Agronomy Facts 60)
- iii. Manure Management for Environmental Protection
- iv. Land Application of Manure- A supplement to the Manure Management Manual Plan Guidance
- v. Manure Export Sheet
- vi. Manure Transfer Summary Sheets
- vii. Manure Field Stacking Requirements Fact Sheet
- 8) Where applicable, the importer shall properly store manure received from the exporter in accordance with the provisions of the Manure Management Manual and the Pa Technical Guide and shall not cause contamination of surface or ground water. This shall include manure stacked in application fields which may not be retained in fields for > 120 days unless covered or otherwise protected.
- 9) Manure received by the importer shall be applied to the land at the rate(s) and method(s) provided in the attached "Nutrient Balance Sheet(s)", or in accordance with a Nutrient Management Plan approved for the importing operation. If the importer wishes to change the lands used for imported manure, the nutrient balance sheet must be revised to reflect the changes and be submitted to the conservation district or State Conservation Commission (and DEP if the exporter is a CAFO) prior to implementing the changes.
- 10) The importer shall comply with applicable manure application setbacks for the imported manure, as outlined in the Nutrient Balance Sheet map(s).
- 11) For any lands not owned by the importer where the manure will be applied (i.e., rented lands), the importer hereby confirms that the importer has the authority to apply manure on those lands.

12) This agreement shall remain in full effect unless terminated by either party upon thirty days prior written notice to the other party. If this agreement is terminated, the exporter shall notify the county conservation district office that approved their nutrient management plan, of the termination.

Exporter Signature, Name and Date Importer Signature, Name and Date (signature) (signature) Stoltzfus (name) Stillaly V \_ (name) Lagan Samu 9-9 10 . (date) 25-25-18 (date)

# **Nutrient Balance Sheet**

Prepared for

Stoltzfus Farms 1535 Col. John Kelly Road Lewisburg, PA 17837 570-713-5929

#### Prepared by

Todd C. Rush #988-NMC 120 Lake Street, Ephrata PA 17522 717-721-6795



Nutrient Management Specialist or Broker 2 Signature

**Date of Development** 

October 3, 2018

Exporter Information Samuel Stoltzfus 16221 SR405, Watsontown, PA 17777 570-538-9525

**County of Origin** 

Northumberland County

#### **Nutrient Balance Worksheet Appendices**

The following appendices need to accompany the Nutrient Balance Worksheets if applicable:

Maps of fields where manure is to applied including required manure application setbacks.

• Completed P-Index spreadsheet and Winter Matrix for each crop management unit (if using Manure Plan Basis: Option 3)

#### Nutrient Balance Sheet Summary

Importing Farm:	Stoltzfus Farms
Whole Farm Note:	None

									Starter/Other Fertilizer (Ib/A)			Su Fer	ppieme tilizer (l	ntal b/A)	Nutrient Balance (Ib/A) <sup>2</sup>		
Стор Стоир	Fields	Acres	Çıop	Manure Group	Application Season	Application Management	Planned   Rati	Manure e <sup>1</sup>	N	PzOs	K₂0	พ	P <sub>2</sub> O <sub>3</sub>	K₂O	N	P205	ĸ₂o
Cern Grain Fall & Spring	DB01W, DB02	25.4	Com for Grain (No- tব)	Veal Manure	Early Fail	Early Fa% Summer Utőzation with no cover crop. All methods of incorporation	4000	gəYA	D	0	0						
Com Grain Fail & Spring	D801W, D802	25.4	Com for Grain (No- til)	Veal Manure	Spring	Spring Spring or summer utilization-Incorporation after 7 days or none	4000	g₃VA	0	o	0	62	o	0	0	-360	-74
Soybeans Fall & Spring	D601W, D802	25.4	Sojteans with Manure	Veal Manure	Late Fail	Late Fait, Summer Utőzation, Single crop com or annuals-No cover crop	4000	AYsg	0	0	o						
Soybeans Fall& Spring	DB01W, DB02	25.4	Soyteans with Manure	Veal Manure	Spring	Spring: Spring or summer utifization-Incorporation after 7 days or none	4000	A∖keg	0	o	0	0	0	o	0	-375	-43

<sup>1</sup> See Nutrient Management Plan Summary Notes <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

NBS Version 4.3 - January 2018 NBS Summary Page - 1

# NBS Summary Notes

	Importing Farm:	Stoltzius Farms			}
CMUTTERID	Crop	Manure Group	Planned Rate Notes	Kutrient Balance Notes	Notes
Corn Grain Fail & Spring	Corn for Grain (No-5))	Veal Manure	Planned rate can be applied annually	Nutrient Balances for P205 and K20 are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer reads	Do not spyly imported veal markers within 100 feat of water wells or 150 feat of surface water. Imported veal marker may only be apphed at the planned rate per sore in the fail and spring each urop year. Do not apply offer markers to the same feats as imported veal markers in the same corp year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fail yeal manue apple sion.
Corn Grain Fail & Spring	Corn for Grain (No-51)	Veal Nanure	Planned rate can be applied annually	Nutrient Balances for P205 and K20 are based on Grop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported vieal manure within 160 feet of water wells or 150 feet of surface water. Imported veal manure may only be applied at the planned rate per abre in the fat and spring each crop year. Do not apply other manures to the same fields as imported yeal manure in the same crop year.
Soyteans Fail & . Spring	Soyteans with Marure	Veal Manure	Planned rate can be epp?ed annuaty	Nutrient Balances for P205 and K20 are based on Crop Removal and SHOULD NOT be used to determine additional ferbinger needs	De not apply imported veal manure within 100 feet of water wells on 150 feet of surface water Imported veal manure may only be applied at the phanned rate per abre in the fail and spring each error year. Do not apply ofter manures to this same focks as imported veal manure in the same corp year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fail veal manure application.
Soyteans Fail & Spring	Soybeans with Manure	Veal Narone	Planned rate can be applied annually	Nutrient Balances for P205 and K20 are based on Crop Removal and SHOULD NOT be used to determina additional fertilizer needs	Do not apply imported veal manure within 100 feat of water wells or 150 feet of surface water. Imported veal manure may only be applied at the planned rate per oure in the fail and spring each crop year. Do not apply other manures to the same feids as imported yeal manure in the same crop year.

NBS Summary Notes Page - 1

NBS Version 4.3 - January 2018

Manure	Group	Information
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Appendic 3 Manure Group Information	Veal Manure
Manure Report Date (note if averaging several reports)	October 1, 2018
Laboratory Name	Spectrum Analytic, Inc.
Manore Type	Other
Manure Unit (ibs/ton or 1000 gal)	b/1000 gai
Total Nitrogen (N) (ibs/ton or 1000 gal)	24.08
Ammonium N (NH <sub>1</sub> -N) (Resiton or 1000 gal)	16.60
Total Organic N (ibs/ton or 1000 gal)	7.48
Total Phosphale (P <sub>2</sub> O <sub>3</sub> ) (Ibs/ton or 1000 gal)	54.97
Total Potash (K <sub>2</sub> O) (ibs.ton or 1000 gal)	16.87
Percent Solids	4.17
PSC Value (analytical or book value)	0.87

Manure Group Info Prinkout Page - 1

NBS Version 4.3 - January 2018

Nutrient Balance Sheets	Corn	Corn Grain Fall & Spring			Grain Fail &	Spring	80yl	beans Fail &	Spring	Sojtears Fail& Spring						
Crop Group Indentification																
Fields		DB01W, DB0	22		DB01W DB	12		OB01W, DB	52		D801W, D80	)2				
Acres		25.4			25.4			25.4			25 4					
NBS Option	Option 2	Nitrogen Re	quirement	Option 2	2 Nătrogen Re	quirement	Option 2	Ntrogen Re	quirement	Option 2	2 Norogen Re	quirement				
PBanking					1		·	1			. T					
Venich 3 Sof Fest P For Octob 2 Actes maximum Sol Tool	Ppm P	•		ррп м	-		ppm P	-		Secure 1	4					
For Option 3 enter soil test for Pi	165			166			166			166						
Pindar Pat A Evolution		1		1						∔I						
Part & Result	BI	stevent Ben	dend.	- DI	des aut Dea	Sec. 4				Pindar ort Required						
Crop		n fra Grein ()	(A +3)		net in the	Useu La eur	P 1	NAK MEG	ureo	P Index not Reguzed						
Crop Precod Viold		000	(2 22)	00	000 012010	ro-09)	34	Destrip Write N	sar.≊e	50,	Deans with N	काधन व				
Osilies fies	·	200	V DUA	<u> </u>	20.	DPA		0	1		6:	1241'A				
Crop Removal Recommendations (LB/A)	200	F205 E0	60	200	80	60	208	65	91	208	P205 65	91				
Soil Test Recommendation (R/A)		1			· · · ·											
Other Nutter/s Appled (ib/A)	0	0		1 <u> </u>	1	0		· · ·			•					
(Nutrients applied regardless of manute)	↓ °			, u	0 0			۲ °	۰ I	Ľ.	0	Ŷ				
P Index Application Method	<u> </u>				· · · · · · · · · · · · · · · · · · ·											
Double Crop CarryOver N (R/A)	0			0			0			0						
Vanure History Description Residual Mature N (6/A)	35	35 Continuously - Summer Crop			Continuous C	ly - Sutiviter Icp	35	Contruous C	ху - Summer гор	0	Contruous C	ly - Summer rop				
Legume History Description Residual Leguma N (&/A)	65	85 Soybeans, 65 bu'A			Soybean	s, 65 bu'A	0	No Prev Les	ious Year Junte	0 No Pred Leg		ous Year ora				
Net Nutrients Required (6/A)	100	60	60	81	81 -140 -7			65	91	154	-155	24				
Manute Group	Veal Name	e		Veal Manur	e		Veal Marvin	e		Veal Markin	e					
Units	&/1000 gal			1/1000 gel			&∕1000 gal			%γ1000 gal						
Vanute Nutrient Content	N	P205	K20	N	N P205 K20			P205	K20	N	P205	K20				
(its fon or 1000 gal)	24 03	54 97	16 87	24 63	54 97 16 87		24.03	54 97	16.87	24.03	54.97	15.87				
Application Season: Management (Incorporation, cover crops, etc.)	Early Fail. S cover	iommer utika orop: All met incorporation	etion with no loods of	Spring. Spring or summer utilization- Incorporation after 7 days or none			Late Fail. S crop.com c	ummer Utőz Ir annuals-W	ation. Single cover crop	Spring Spr Incorporat	r utization- ys or none					
t silebāts Endern	Total N	13H4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N Org. N		Total N	NH4-N	Org. N				
(Total N or 10H4-N & Organie N)	0.20			0 20			0 20			0 20	1					
P Index Application Nethod							·					ſ				
V Balanced Manure Rate (top: pa/A)		20 747		· ····· ··· · · · · · · · · · · · · ·	18.815	co <sup>1/4</sup>		35.692	oz/à	I	31.950	00''b				
P Removal Balance Man ve Rate		1 455	09//A		n	as/A		1 162	02/1Å		n	03/8				
(ton or ga/A; if required by P index)	Crop P Re	movel (3/A)	£0.0	Crop P Re	- enovel (3/A)	0.0	Crop P R	(A/A)	65.0	Croo P R		0.0				
P Index Value						••										
Planned Mapire Rate (Ion or nal/A)		4 000	02/1A	1 ·	4.000	asVA.	• • • • • • • • • • • • • • • • • • • •	4,000	0.154		4.000	aslis				
Mithants Annied at Plannad Marura Pota	i	[]		ł		8-171		-,	3-114			948 <b>A</b>				
(/b/A)	19	220	67	19	220	67	19	220	67	19	220	67				
tolariena Balance alter Manure	81	-140	-7	62	-350	-74	0	-155	24	0	-375	-43				
Suppremental Fertilizer (@/A)	0	0	0	62	0	0	- 0	0	0	0	0	0				
P Index Application Method	<b> </b>															
Final Nutrent Balance (AdA)				0	-350	-74		L		0	-375	-43				
Vutple Application	'	ebhl siqtuV	Ι.		Mu'side Final		<u> </u>	Wutiple Initia	!		Multiple Final					
Sol test or Crop Removal	Nutrient Bala are based of SHOULD No additional fe	Nutrent Balances for P205 and K20 Nut are based on Crop Removal and Ere SHOULD NOT be used to determine SH additional fertilizer needs additional			Nutrient Balances for P2O5 and K2O Na tee based on Crop Removal and easi SHOULD NOT be used to determine St additional fertilizer needs			ances for P20 h Crop Remo DT be used to rtőzer needs	05 and K2O wal and o determine	Numient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs						

NBS Version 4.3 - January 2018

Crop & Manure Mgmt Printout Page - 1

### Appendix 1 Operation Maps

Maps (or aerial photographs) required in Nutrient Balance Sheets must identify: road and road names adjacent to and within the operation; field identification, boundaries and acreage; manure application setback areas and vegetated buffers and associated landscape features (streams and other water bodies, sinkholes, and active water wells or springs); and location of in-field manure stacking areas (including each site in stacking area rotation).



# Appendix 9 Operation Maps

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Topographic Map and Soils Map** must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary.





Northumberland County Soils Legend

- ALBRIGHTS SILT LOAM, 3 TO 8 PERCENT SLOPES АЬВ
- ALLENWOOD GRAVELLY SILT LOAM, 0 TO 3 PERCENT SLOPES ALLENWOOD GRAVELLY SILT LOAM, 15 TO 25 PERCENT SLOPES AnA
- AnD AoB
- ALLENWOOD AND WASHINGTON SOILS, 3 TO 3 PERCENT SLOPES ALLENWOOD AND WASHINGTON SOILS, 8 TO 15 PERCENT SLOPES A0C
- ALVIRA SILT LOAM, 6 TO 3 PERCENT SLOPES ArA
- ÅrB ALVIRA SILT LOAM 3 TO & PERCENT SLOPES
- ALVIRA SILT LOAM, 8 TO 15 PERCENT SLOPES ArC
- AsB
- ALVIRA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES BARBOUR SOILS, FREQUENTLY FLOODED Ba
- Rh BARBOUR-LINDEN COMPLEX, RARELY FLOODED
- Bc BASHER SOILS
- BASHER SOILS, FREQUENTLY FLOODED Bd
- BEDINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES BEDINGTON SILT LOAM, 8 TO 15 PERCENT SLOPES BeB
- BeC. R-D
- BEDINGTON SILT LOAM, 15 TO 25 PERCENT SLOPES BERKS SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES BkB
- BkC
- BERKS SHALY SILT LOAM, 8 TO 15 PERCENT SLOPES BERKS SHALY SILT LOAM, 15 TO 25 PERCENT SLOPES BkD
- BUCHANAN GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES BaB
- BUCHANAN GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES BaC
- BUCHANAN VERY STONY LOAM, 0 TO 8 PERCENT SLOPES BiB
- RτD BUCHANAN VERY STONY LOAM, 8 TO 25 PERCENT SLOPES
- CALVIN-KLINESVILLE SHALY SILT LOAMS, 3 TO 8 PERCENT SLOPES CaB
- CALVIN-KLINESVILLE SHALY SILT LOAMS, 8 TO 15 PERCENT SLOPES CALVIN-KLINESVILLE SHALY SILT LOAMS, 15 TO 25 PERCENT SLOPES CaC
- CaD
- DAMŞ DAM DEKALB EXTREMELY STONY SANDY LOAM, 0 TO 8 PERCENT SLOPES DeB
- DeD
- DEKALB EXTREMELY STONY SANDY LOAM, \$ TO 25 PERCENT SLOPES DEKALB EXTREMELY STONY SANDY LOAM, \$ TO 25 PERCENT SLOPES DeF
- DUMPS, MINE Du
- Dy DYSTROCHREPTS, BOULDERY
- EDOM COMPLEX, 3 TO 8 PERCENT SLOPES EdB
- EDOM COMPLEX, 8 TO 15 PERCENT SLOPES EDOM COMPLEX, 15 TO 25 PERCENT SLOPES EdC
- EdD
- ELLIBER CHERTY SILT LOAM, 3 TO & PERCENT SLOPES EsB
- ELLIBER CHERTY SILT LOAM, 8 TO 15 PERCENT SLOPES ELLIBER CHERTY SILT LOAM, 15 TO 25 PERCENT SLOPES ExC
- EsD
- ELLIBER VERY CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES ELLIBER VERY CHERTY SILT LOAM, 8 TO 15 PERCENT SLOPES FtB
- EIC
- ELLIBER VERY CHERTY SILT LOAM, 15 TO 25 PERCENT SLOPES ELLIBER VERY CHERTY SILT LOAM, 25 TO 70 PERCENT SLOPES EiD EIF
- EVENDALE CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES
- HaB
- HAGERSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES HAGERSTOWN SILT LOAM, 8 TO 15 PERCENT SLOPES HaC
- HAGERSTOWN SILT LOAM, 15 TO 25 PERCENT SLOPES HARTLETON CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES Hall
- HtB
- HtC
- HARTLETON CHANNERY SILT LOAM, \$ TO 15 PERCENT HARTLETON CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES. HtĐ
- If∎B HAZLETON AND CLYMER EXTREMELY STONY SANDY LOAMS, 0 TO 8 PERCENT SLOPES
- HaD HAZLETON AND CLYMER EXTREMELY STONY SANDY LOAMS, 8 TO 25 PERCENT SLOPES
- HAZLETON AND CLYMER EXTREMELY STONY SANDY LOAMS, 25 TO 80 PERCENT SLOPES Haf

- Πv HOLLY SILT LOAM
- Hy
- HOLLY SILT LOAM HOLLY SILT LOAM, PONDED HOLLY SILT LOAM, RARELY FLOODED Ð
- KREAMER CHERTY SILT LOAM, 3 TO 8 PERCENT SLOPES KREAMER CHERTY SILT LOAM, 8 TO 15 PERCENT SLOPES KmB
- KmC LaB
- LAIDIG GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES LAIDIG GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES LaC
- LAIDIG EXTREMELY STONY LOAM, 0 TO 8 PERCENT SLOPES LbB
- LAIDIG AND MECKESVILLE EXTREMELY STONY SOILS, 8 TO 25 PERCENT SLOPES LAIDIG AND MECKESVILLE EXTREMELY STONY SOILS, STEEP LdD
- LdF
- I LR LAKIN LOAMY FINE SAND, 3 TO 8 PERCENT SLOPES LAKIN LOAMY FINE SAND, 8 TO 15 PERCENT SLOPES
- LFC
- LECK KILL SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES LaB
- LECK KILL SHALY SILT LOAM, 8 TO 15 PERCENT SLOPES LøC
- LECK KILL SHALY SILT LOAM, 15 TO 25 PERCENT SLOPES ۵D
- 1 ... LINDEN SULT LOAM
- MECKESVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES MkB
- MECKESVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES MECKESVILLE SILT LOAM, 15 TO 25 PERCENT SLOPES MkC
- MkD
- MONONGAHELA SILT LOAM, © TO 3 PERCENT SLOPES MONONGAHELA SILT LOAM, 3 TO 8 PERCENT SLOPES МоА
- MoB
- OPEQUON SILTY CLAY LOAM, 3 TO 8 PERCENT SLOPES ΟρB OpD
- OPEQUON SILTY CLAY LOAM, & TO 25 PERCENT SLOPES OPEQUON SILTY CLAY LOAM, 25 TO 50 PERCENT SLOPES ΟρΕ
- Pa PITS
- QUARRIES Ou
- Rn B
- RUSHTOWN VERY SHALY SILT LOAM, 3 TO 8 FERCENT SLOPES RUSHTOWN VERY SHALY SILT LOAM, 8 TO 25 PERCENT SLOPES B<sub>W</sub>C
- SHELMADINE SILT LOAM, 0 TO 3 PERCENT SLOPES
- ShB SHELMADINE SILT LOAM, 3 TO 8 PERCENT SLOPES
- SHELMADINE VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES \$mВ
- 11£ UDIFLUVENTS, COAL OVERWASH
- UDIFLUVENTS AND FLUVAQUENTS, GRAVELLY Ug
- цĿ UDORTHENTS, SANDSTONE AND SHALE UNADILLA SILT LOAM, 3 TO 8 PERCENT SLOPES UnB
- UNADILLA SILT LOAM, 8 TO 15 PERCENT SLOPES UaC
- UNADILLA SILT LOAM 15 TO 25 PERCENT SLOPES lísÐ
- URBAN LAND Ur
- w WATER
- WASHINGTON SILT LOAM, WET SUBSTRATUM, 3 TO 8 PERCENT SLOPES WaB
- WATSON SILT LOAM, 0 TO 3 PERCENT SLOPES WATSON SILT LOAM, 3 TO 8 PERCENT SLOPES WЪA
- WBB
- WATSON SILT LOAM, 8 TO 15 PERCENT SLOPES wъс
- WeB
- WEIKERT SHALY SILT LOAM, 3 TO 8 PERCENT SLOPES WEIKERT SHALY SILT LOAM, 8 TO 15 PERCENT SLOPES WeC
- WEIKERT SHALY SILT LOAM, 15 TO 25 PERCENT SLOPES WEIKERT AND KLINESVILLE SHALY SILT LOAMS, STEEP W2D
- WKE
- WHEELING SOILS, 0 TO 3 PERCENT SLOPES WHEELING SOILS, 3 TO 8 PERCENT SLOPES WsA
- WsB
- WsC WHEELING SOILS, 8 TO 15 PERCENT SLOPES WYOMING GRAVELLY SANDY LOAM, 0 TO 3 PERCENT SLOPES WYA
- WYOMING GRAVELLY SANDY LOAM, 3 TO 8 PERCENT SLOPES

# Appendix 10 Crop Years 2019 Supporting Information & Documentation

Includes if applicable the Rainfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates.

### **Emergency Response Plan**

If an emergency spill or leak should occur you need to take the following actions:

#### 1) Ensure that you and other people are safe. If the spill or leak involves a public road:

a. Contact the police for traffic control: State Police - 911

b. Use flares, safety cones, etc. to warn approaching motorists

#### 2) Stop the leak or spill:

a. If the leak or spill occurs while emptying the storage:

i. Stop pumps, close valves and / or stop siphoning of manure

ii. Park on top of the flexible piping to pinch it closed

iii. If necessary, direct manure to another storage structure

iv. Plug holes in the impoundment, build dams to capture the leak and either pump the manure back into the storage or spread it on crop fields according to your nutrient management plan

b. If the spill happens while on the road:

i. Pull off to the side of the road

ii. Plug the leak or otherwise stop the flow of manure from the tank

iii. Build a berm or dike to keep manure from flowing into streams, ditches, etc.

iv. Call the police for traffic control: State Police - 911

#### 3) Contain and control the leak or spill:

a. Build a containment dam to capture the manure using soil, gravel, hay bales, etc. Provide an area for the impounded manure to run into and be temporarily stored. Limit the area in contact with manure. Local individuals with excavation and manure hauling equipment are:

i. Menno Reiff – 570-966-4349

ii. Small Job Excavating – 570-523-9567

b. Prevent manure from running into streams, ditches, waterways, etc.

c. Use absorbent materials such as straw, hay, sawdust, animal feed or soil to soak up the manure and to limit or stop manure flow.

d. Check for contaminated subsurface tile lines and divert manure flow from inlet structures

#### 4) Notify the proper authorities:

Pennsylvania Department of Environmental Protection Emergency Response – 570-327-3636 Northumberland County Conservation District – 570-495-4665 PA Fish & Boat Commission Southeast Regional Office – 814-359-5250 TeamAg, Inc. Nutrient Management Specialist – 570-764-7003

a. Make a record of the details of the spill and the actions you took to remedy the situation. Take pictures of the extent of the spill as well as your containment and cleanup practices.

b. If a spill enters a sinkhole or otherwise has the potential to enter groundwater, notify adjacent landowners who use private wells for their water supply.

#### 5) Clean up the leak or spill:

a. Clean up procedures may be directed by the authorities listed above.

b. Pick up absorbent materials you used and properly dispose of the material.

c. Restore damaged areas if necessary.





### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

**DATE:** October 22, 2018

- TO: Karl G. Brown, Executive Secretary State Conservation Commission
- **FROM:** Michael J. Walker, NM Regional Coordinator State Conservation Commission
- **SUBJECT:** Nutrient Management Plan Review (1) Luzerne County, Pennsylvania

### Action Requested

Action on a Nutrient Management Plan for the following operation in Luzerne County:

1. Kiliti Family Farms - David Kiliti – Farm located at 62 Kiliti Road, Berwick, PA 18603 (crop year 2019, 2020 and 2021)

### **Background**

I have completed the required review of the subject nutrient management plan listed above. Final corrections to the plan were received at the PDA Region 2 office on October 18, 2018. As of that date, the plan is considered to be in its final form. The operation is located in Luzerne County and considered to be a volunteer animal operation (VAO) under the PA Nutrient and Odor Management Act. This operation is classified as a Concentrated Animal Feeding Operation (CAFO) under DEP regulatory authority and is required to hold an approved Act 38 NMP. The Commission is the proper authority to take action on this plan, because Luzerne Conservation District is not delegated plan review and action responsibilities under the PA Nutrient and Odor Management Act Program.

A brief description of the operation, concluding with the staff recommendation, is attached. Also attached is a copy of the complete nutrient management plan for the operation.

Thank you for considering this plan for Commission action.

#### **Farm Descriptions**

Kiliti Family Farm - David Kiliti NMP, Luzerne County – David and Marilee Kiliti reside at 22 Kiliti Road, Berwick, PA and are proposing to construct a duck barn and HPDE lined earthen manure storage at their farm located at 62 Kiliti Road, Berwick, PA. The Kiliti's will maintain their existing beef herd of 20 beef steers on the operation but the existing goats, laying chickens and guinea hens will be removed prior to the construction of the duck barn. The beef animals have free access to the pasture, beef barn and runin shed year round. Feed and water will be provided to the beef animals throughout the pasture and in the barn. All beef manure able to be collected in the barn or run-in shed will be land applied to crop fields under Kiliti's control in the spring and fall. The proposed duck operation will average 13 flocks per year of 19,500 starter ducks and 19,500 finisher ducks. Starter ducks will be kept in the starter portion of the duck barn for 17 days and then moved to the finisher portion of the duck barn for 21 additional days. Ducks will be 100% confined to the duck barn. Duck manure will be handled as a liquid and will be transferred using a scraper and gravity flow pipe system to a proposed HDPE lined earthen manure storage pond. The combined animal equivalent units (AEUs) on Kiliti agricultural operation are planned at 106.23. The operation consists of 35.9 acres of cropland of which 19 acres are typically kept in hay, 18.4 acres of pasture and 19.2 acres of farmstead. Cattle have access to a 6.7 acre wooded section of pasture, identified as field DKP2; however, these acres were not included in the AEU per acre calculation for this operation because they are not managed as cropland, hayland or pasture. The current crop rotation of owned land is one year of corn grain followed by six years of alfalfa-grass hay. Kiliti's also rent 14.3 acres (one field) which the rotation is two years of corn grain followed by one year of soybeans. The animal equivalent units per acre for the Kiliti Family Farms - David Kiliti operation equals to 1.96, classifying the operation as a volunteer animal operation under Act 38 of 2005.

A 100' x 240' x 12' HDPE lined earthen manure storage pond is proposed for the liquid duck manure with a usable capacity of 1,088,652 gallons. An incinerator is planned to be installed to handle animal mortality. The duck manure will be handled as a liquid and applied/exported in the spring and fall. A certified custom hauler is planned to be utilizes to apply this liquid duck manure. Beef cattle generate approximately 147 tons of manure which all will be utilized on lands under Kiliti control. The ducks are estimated to produce approximately 1,245,529.8 gallons of manure annually. The proposed NMP includes two known exporter/importer agreement and associated nutrient balance sheets for exporting over 3,428,680 gallons of duck manure per year to the neighboring farms for crop production.

BMPs listed to be implemented on the Kiliti Family Farms include: Animal Mortality Facility, Critical Area Planting, Division, Fencing, Grassed Waterway, Heavy Use Area Protection, Lined outlets, Livestock Pipelines, Roof Runoff Structure, Spring Development, Stream Crossing, Structure for Water Controls, Underground Outlets, Waste Storage Facility, Waster Transfer, Water & Sediment Control Basin and Watering Facilities. Kiliti's are working with DEP Streambank Fencing program to exclude the beef animals from the stream. The duck barn and HDPE lines storage are planned to be installed in the Spring 2019.

Based on my review, the NMP developed for Kiliti Family Farms - David Kiliti operation meets the requirements of the PA Nutrient and Odor Management Act and Regulations, and I therefore recommend Commission approval.

# **Nutrient Management Plan**

### For Crop Year(s)

2019

2020

2021

#### **Prepared For**

**Operator's Name, Mailing Address, Telephone Number(s)** 

Kiliti's Family Farm, LLC – David L. Kiliti, 22 Kiliti Road, Berwick, PA 18603, 570-441-3936 (David Cell)

#### **Operation's Location Address (if different than above)**

62 Kiliti Road, Berwick, PA 18603

#### Site Name (CAFOs)

Kiliti's Family Farm, LLC CAFO

### **Prepared By**

Nutrient Management Specialist's Name, Address, Telephone Number(s)

Todd C. Rush

TeamAg Inc. 120 Lake Street Ephrata, PA 17522 570-764-7003

Nutrient Management Specialist's Program Certification Number #988-NMC

### Administratively Complete Date

### **Plan Approval Date**

### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)



# **Table of Contents**

Nutrient Management Plan Summary (Excel)

Nutrient Management Plan Summary Notes (Excel)

Manure Spreader Calibration Notes (Excel)

Additional Nutrient Management Plan Requirements (Word)

**Operator Management Map (Mapping Program)** 

- Appendix 1: Nutrient Management Plan Agreement & Responsibilities (Word)
- Appendix 2: Operation Information (Word)
- Appendix 3: Manure Group Information (Excel)
- Appendix 4: Crop & Manure Management Information (Excel)
- Appendix 5: Phosphorus Index (Excel)
- Appendix 6: Manure Management (Word)
- Appendix 7: Stormwater Control (Word)
- Appendix 8: Importer/Broker Agreements & Nutrient Balance Sheets (Word & Excel)
- Appendix 9: Operation Maps (Mapping Program)

### **Topographic Map**

Soils Map

Appendix 10: Supporting Information & Documentation (Excel) (List below the required documents included in the plan.)

Average Manure Nutrient Content

**Rainfall Worksheet** 

Winter Manure Storage Capacity Calculations

**Emergency Response Plan** 

# Nutrient Management Plan Summary

Total acres rep	MP Summa	iry:	54.3							(	Crop Y	ear(s)	2019			
Whole Farm Not	te:	None If manure ru field. The fer manure can field.	ns out for any tilizer required be determine	field, consult d on any part o d from the 'Ne	Appendix 4 of the pla of the field that does r t Nutrients Required'	n for that not receive for that										
Operation Acro Total Acres:	<b>es:</b> 80.2	_ Tota	I Acres Avail	able For Nutr	ient Application Und	der Operato	or's Con	trol: C	)wned:	40		R	ented:	14.3		
Ani	mal Equiva	alent Units:	106.23		Animal Equ	uivalent U	nits Per	Acre:	1.96							
								Sta Feri	arter/Ot tilizer (l	ther lb/A)	Suj Feri	opleme tilizer (l	ntal b/A)	Nutri	ent Bal (Ib/A) <sup>2</sup>	ance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	Ν	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000	gal/A	0	0	0						
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0						
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Summer	Summer: Summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	18	0	-246	0
DK2	2.7	Corn for Grain (No- till)	Liquid Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	6000	gal/A	15	0	0						
DK2	2.7	Corn for Grain (No- till)	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	6000	gal/A	0	0	0	0	0	0	0	-276	-102

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

								Starter/Other Fertilizer (Ib/A		her b/A)	Su Fert	opleme tilizer (l	ntal b/A)	Nutr	lutrient Balan (Ib/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	N	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K₂O
DK3	2.4	Corn for Grain (No- till)	Liquid Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	4000	gal/A	15	0	0						
DK3	2.4	Corn for Grain (No- till)	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	60	0	0	0	-184	-58
DK4	3.8	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	156	0	-92	0
DK5	2	Corn for Grain (No- till)	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	6000	gal/A	15	0	0	30	0	4	0	-138	0
DK6	3.2	Corn for Grain (No- till)	Beef Finisher Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	4	tons/A	15	0	0						
DK6	3.2	Corn for Grain (No- till)	Beef Finisher Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4	tons/A	0	0	0	80	0	22	0	-64	0
DK7	3.9	Planting Alfalfa-Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	56	0	-92	0
DKP1	18.4	Established Pasture (without legume)	Beef Finishing Cattle - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	71	0	45	0	-35	0
EH1	14.3	Corn for Grain (No- till)	Liquid Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	6000	gal/A	15	0	0	30	0	0	0	-138	-26

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

# NMP Summary Notes

CMU/Field ID	Notes
DK1	
DK1	
DK1	None
DK2	
DK2	None
DK3	
DK3	None
DK4	Note mechanical manure application setback of 100 feet from water well.
DK5	None
DK6	
DK6	None
DK7	Note mechanical manure application setback of 100 feet from surface water.
DKP1	This field is managed as permanent grass pasture. An average of 20 beef finisher cattle have free access to this pasture for an average of 18 hours per day year round or equivalent. Water and supplemental feed are provided in the pasture and at the cattle barn.
EH1	None

Crop Years 2019

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

# Manure Spreader Calibration Notes

1				Crop Years 2019
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
3.75 tons per acre	IH 550 Box Spreader	Slow	Case 730	4th Gear, Half Throttle, 540 RPM
4,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A
6,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A

# Nutrient Management Plan Summary

Total acres reported in NMP Summary:				54.3							(	Crop Y	ear(s)	2020		
Whole Farm No	te:	None If manure ru field. The fe manure can	ns out for any rtilizer required be determined	field, consult d on any part o d from the 'Ne	Appendix 4 of the pla of the field that does r t Nutrients Required'	n for that not receive for that	-									
Operation Acr Total Acres: Ani	es: 80.2 mal Equiva	field. _ Tota alent Units:	I Acres Avail: 106.23	able For Nutr -	ient Application Und Animal Equ	der Operato uivalent U	or's Con nits Per	trol: C Acre:	<b>)wned:</b> 1.96	_40		_ R	ented:	<u>14.3</u>		lance
								Fert	tilizer (l	b/A)	Fert	tilizer (l	b/A)		(lb/A) <sup>2</sup>	
CMU/Field ID	Acres	Сгор	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000	gal/A	0	0	0						
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0						
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Summer	Summer: Summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	18	0	-246	0
DK2	2.7	Planting Alfalfa-Grass with Manure	Beef Finisher Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4	tons/A	0	0	0						
DK2	2.7	Planting Alfalfa-Grass with Manure	Beef Finisher Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4	tons/A	0	0	0	0	0	28	0	-64	84

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

								Sta Fer	arter/Ot tilizer (I	her b/A)	Su Fer	Supplementa Fertilizer (lb//		Nutr	Nutrient Balar (Ib/A) <sup>2</sup>	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K₂O
DK3	2.4	Planting Alfalfa-Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000	gal/A	0	0	0						
DK3	2.4	Planting Alfalfa-Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	82	0	-184	0
DK4	3.8	Established Alfalfa Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000	gal/A	0	0	0	0	0	156	0	-92	0
DK5	2	Planting Alfalfa-Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	156	0	-92	0
DK6	3.2	Planting Alfalfa-Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000	gal/A	0	0	0						
DK6	3.2	Planting Alfalfa-Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	102	0	-184	0
DK7	3.9	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	56	0	-92	0
DKP1	18.4	Established Pasture (without legume)	Beef Finishing Cattle - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing	See Notes	0	0	0	71	0	45	0	-35	0

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

							St Fei	arter/Ot tilizer (l	her b/A)	Suj Fer	opleme tilizer (l	ntal b/A)	Nutr	ient Bal (Ib/A) <sup>2</sup>	lance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	$P_2O_5$	K₂O	Ν	$P_2O_5$	K <sub>2</sub> O
EH1	14.3	Corn for Grain (No- till)	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	6000 gal/A	15	0	0	70	0	0	0	-138	-26

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

# NMP Summary Notes

CMU/Field ID	Notes
DK1	
DK1	
DK1	None
DK2	
DK2	None
DK3	
DK3	None
DK4	Note mechanical manure application setback of 100 feet from water well.
DK5	None
DK6	
DK6	None
DK7	Note mechanical manure application setback of 100 feet from surface water.
DKP1	This field is managed as permanent grass pasture. An average of 20 beef finisher cattle have free access to this pasture for an average of 18 hours per day year round or equivalent. Water and supplemental feed are provided in the pasture and at the cattle barn.
FH1	None

Crop Years 2020

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

# Manure Spreader Calibration Notes

1				Crop Years 2020
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
3.75 tons per acre	IH 550 Box Spreader	Slow	Case 730	4th Gear, Half Throttle, 540 RPM
4,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A
6,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A

# Nutrient Management Plan Summary

Total acres rep	ported in N	IMP Summa	iry:	54.3			Crop Year(s) 2021										
Whole Farm Not	te:	None If manure ru field. The fer manure can field.	ns out for any tilizer required be determine	field, consult d on any part o d from the 'Ne	Appendix 4 of the pla of the field that does r t Nutrients Required'	n for that not receive for that	-										
Operation Acro Total Acres:	<b>es:</b> 80.2	_ Tota	l Acres Avail	able For Nutr	ient Application Und	der Operato	or's Con	trol: C	)wned:	40		R	ented:	14.3			
Ani	mal Equiv	alent Units:	ent Units: <u>106.23</u>		Animal Equ	uivalent U	nits Pei	r Acre: 1.96 Starter/Other Fertilizer (Ib/A)			Suj Feri	Supplemental Nutr Fertilizer (Ib/A)			ient Bal (Ib/A) <sup>2</sup>	ent Balance	
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000	gal/A	0	0	0							
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0							
DK1	3.6	Established Alfalfa Grass with Manure	Liquid Duck Manure	Summer	Summer: Summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0	0	0	18	0	-246	0	
DK2	2.7	Established Alfalfa Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000	gal/A	0	0	0							
DK2	2.7	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000	gal/A	0	0	0							

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

							Starter/Other Fertilizer (Ib/A)			Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>		
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	N	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O	Ν	$P_2O_5$	K <sub>2</sub> O
DK2	2.7	Established Alfalfa Grass with Manure	Liquid Duck Manure	Summer	Summer: Summer utilization- Incorporation after 7 days or none	4000 gal/A	0	0	0	0	0	28	0	-276	0
DK3	2.4	Established Alfalfa Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000 gal/A	0	0	0						
DK3	2.4	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000 gal/A	0	0	0	0	0	82	0	-184	0
DK4	3.8	Established Alfalfa Grass with Manure	Beef Finisher Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4 tons/A	0	0	0						
DK4	3.8	Established Alfalfa Grass with Manure	Beef Finisher Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4 tons/A	0	0	0	0	0	112	0	-64	0
DK5	2	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000 gal/A	0	0	0	0	0	156	0	-92	0
DK6	3.2	Established Alfalfa Grass with Manure	Liquid Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	4000 gal/A	0	0	0						
DK6	3.2	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000 gal/A	0	0	0	0	0	102	0	-184	0

<sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes). <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

							Starter/Other Fertilizer (Ib/A)		Supplemental Fertilizer (Ib/A)			Nutr	Nutrient Balance (Ib/A) <sup>2</sup>		
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	Ν	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O	Ν	$P_2O_5$	K₂O
DK7	3.9	Established Alfalfa Grass with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	4000 gal/A	0	0	0	0	0	56	0	-92	0
DKP1	18.4	Established Pasture (without legume)	Beef Finishing Cattle - Uncollected	Grazing	Grazing anytime with nutrient uptake during growing season	Grazing See Notes	0	0	0	71	0	45	0	-35	0
EH1	14.3	Soybeans with Manure	Liquid Duck Manure	Spring	Spring: Spring or summer utilization- Incorporation after 7 days or none	6000 gal/A	0	0	0	0	0	0	0	-138	-16

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

# NMP Summary Notes

CMU/Field ID	Notes
DK1	
DK1	
DK1	None
DK2	
DK2	
DK2	None
DK3	
DK3	None
DK4	
DK4	Note mechanical manure application setback of 100 feet from water well.
DK5	None
DK6	
DK6	None
DK7	Note mechanical manure application setback of 100 feet from surface water.
DKP1	This field is managed as permanent grass pasture. An average of 20 beef finisher cattle have free access to this pasture for an average of 18 hours per day year round or equivalent. Water and supplemental feed are provided in the pasture and at the cattle barn.
EH1	None

Crop Years 2021

 <sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).
 <sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

# Manure Spreader Calibration Notes

1				Crop Years 2021
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
3.75 tons per acre	IH 550 Box Spreader	Slow	Case 730	4th Gear, Half Throttle, 540 RPM
4,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A
6,000 gallons per acre	Commercial Applicator Used	N/A	N/A	N/A

# **Additional Nutrient Management Plan Requirements**

Best Management Practice	NRCS Practice Code <sup>1</sup>	BMP Location	Implementation Season & Year			
Animal Mortality Facility	316	South of proposed duck barn	Summer / 2019			
Critical Area Planting	342	Areas disturbed by construction activities	Fall / 2019			
Diversion	362	South of field DK4	Fall / 2019			
Fence	382	Streambank in pasture DKP1	Fall / 2018			
Grassed Waterway / Swale	412	Upslope of duck barn, manure storage & stormwater basins	Summer / 2019			
Heavy Use Area Protection	561	South side of cattle barn	Fall / 2019			
Lined Outlet	468	Swale & underground outlet pipe outlets	Summer / 2019			
Livestock Pipeline	516	Fall / 2018				
Roof Runoff Structure	558	South side of cattle barn roof	Fall / 2019			
Spring Development	574	Spring in pasture DKP1	Fall / 2018			
Steam Crossing	578	Pasture DKP1	Fall / 2018			
Structure for Water Control	587	Swale inlet pipes	Summer / 2019			
Structure for Water Control	587	Level spreader at swale outlet north of duck barn	Summer / 2019			
Structure for Water Control	587	Stormwater diversion inlet pipe	Fall / 2019			
Structure for Water Control	587	Level spreader at underground outlet pipe in field DK5	Fall / 2019			
Underground Outlet	620	Cattle barn roof gutters to outlet	Fall / 2019			
Underground Outlet	620	Swales to stormwater basin	Summer / 2019			
Underground Outlet	nderground Outlet 620 Stormwater diversion to level spreader					
Waste Storage Facility	313	East of duck barn at Farmstead 2	Summer / 2019			
Waste Transfer	634	Proposed duck barn to waste storage facility	Summer / 2019			
Water & Sediment Control Basin	638	West of duck barn & manure storage	Summer / 2019			

# Manure Management and Stormwater BMP Implementation Summary

	Watering Facility	614	Pasture DKP1	Fall / 2018
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1 If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank.

### **In-Field Manure Stacking Procedures**

Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles.

This operation does not field stack manure.

## **Additional CAFO Requirements**

In-field stacking criteria, winter storage requirements, and other issues identified by DEP's review of the nutrient management plan.

1. No Concentrated Animal Feeding Operation (CAFO) may stack manure for greater than 14 days unless the stack is properly located and covered or otherwise stored/protected to prevent discharge to surface water during a storm event.

2. No CAFO may land apply manure within 100 ft, of a surface water or conduit to surface water (such as, but not limited to, a sink hole, tile drain inlet, or irrigation well), unless a permanent 35 ft vegetated buffer is present between the surface water or conduit to surface water. Importers utilized by the CAFO operation should use the setbacks identified in their Nutrient Management Plan or the Nutrient Balance Sheet provided by the CAFO operator. These setbacks requirements may be greater than 100 foot in some cases.

3. CAFO operators are advised to have their manure storage facilities near empty by December 15th, in order to provide as much manure storage time during winter months. This operation should have at least a minimum of 4 vertical feet or 8 feet along the slope distance from the top of the storage embankment (2.41 vertical feet of usable storage plus 1 vertical foot of freeboard plus 0.59 vertical feet for the volume of a 100 year / 24 hour storm event) of space in the 100' x 240' x 12' HDPE lined earthen manure storage pond on December 15th. This will allow for 464,516 gallons of storage over the 76 day winter period. See Appendix 10 for required winter storage volume calculations.

4. Measures taken to prevent a discharge to surface water from the storage of raw materials such as feed and supplies, is as follows: Duck feed is stored as dry feed is sealed bins. Cattle feed is stored as dry feed in buildings. Other raw materials such as chemicals or fuels are discussed in the farm's Pollution Prevention and Contingency Plan.

## **Proposed Manure Storage Description**

Type, dimensions, volume, freeboard and location on map.

A 100' x 240' x 12' HDPE lined earthen manure storage pond is proposed for this operation to provide long term storage for liquid duck manure. The usable capacity of the storage will be 1,088,652 gallons when accounting for a 1 foot free board and the 7.09 inch / 106,066 gallon volume of a 100 year / 24 hour storm event. The total freeboard required for the storage will be 19.09 inches. The storage will be constructed at farmstead 2 to the east of the proposed duck barn. Manure will transfer by gravity from the duck barn to the storage. Upon completion, two representative manure samples must be taken directly from the manure in the structure during manure removal and submitted to a laboratory for analysis. One sample must be taken in the spring and one sample must be taken in the fall. Per Act 38 guidelines, because the manure stored in the structure is exposed to precipitation, one manure sample will be required each season that manure is removed and applied to cropland.
#### **Description of Planned Alternative Manure Technology Practices**

Type of practice, volume of manure addressed, and result of practice.

There are no alternative manure technology practices planned for this operation.

#### **Exported Manure Summary**

Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan.

Excess duck manure is exported to known importers for application on crop land. See Appendix 8 for details.

#### **Operator Management Map**

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Operator Management Map** is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9.

# DK1 3.6ac DK2 2.7ac DK3 2.4ac DK4 3.8ac DK7 3.9ac DK5 2ac EH1 14.3ac DK P DK6 3.2ac DK Legend Local Roads enns Rd WaterLine AppSetback100ft ExistingFence Fields FarmBoundary NeighboringWells ExistingBarns ProposedBarn Buildings ProposedManureStorage WasteTransfer AnimalMortalityFacility AnimalConcentrationArea **\/TeamA**g ⊐Feet 200 800 1,200 0 400 Incorporated Ś

Kiliti's Family Farm, LLC Operator Management Map

\*\*Field verification of application setbacks and buffers is required prior to land application of manure.\*\*

# Kiliti's Family Farm, LLC Farmstead & Planned Practice Map



#### Appendix 1

### **Nutrient Management Plan Agreement & Responsibilities**

#### **Plan Implementation Requirements**

# This nutrient management plan has been developed to meet the requirements of the following programs:

Х	Pennsylvania Act 38 of 2005		CAO X VAO (check one)							
Х	Pennsylvania CAFO (Concentrated Animal Feeding Operation) program									
	Other program:									

Plans developed under these programs are required to be implemented as approved in order to maintain compliance with the specific law or program. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions; installation of listed BMPs within implementation timeframes; and record keeping obligations of the program.

#### The nutrient management plan has been developed as a: (check one)

	1-Year Plan for Crop Year		(annual update	s will be completed)
Х	3-Year Plan for Crop Years	2019	2020	2021

#### Records required to be maintained include the following:

1) Annual crop yields

Х

Х

- 2) Manure and fertilizer application rates, locations and date of application
- 3) Manure production figures for the various manure groups listed in your plan
- 4) Soil test reports (testing required every 3 years per crop management unit)
- 5) Manure test reports (testing required once a year for each manure group)
- 6) Number of animals on pasture, number of days on pasture, and hours per day on pasture
- 7) For operations exporting manure, Manure Export Sheets
- 8) BMP designs and certification for new liquid and semi-solid manure storage facilities

#### The following has been confirmed:

Verification of Ag E&S Plan

Verification of Existing Site Specific Emergency Response Plan

Verification that owners of rented/leased lands have been notified that a nutrient management plan has been developed which calls for manure to be applied to their lands and that they have no objections to the plan requirements.

Х	Owners	Not
Х	Owners	No

- tified
- No Rented/Leased Lands

### **Specialist Signature**

I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the program(s) indicated above; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

**Specialist Signature** 

Tallik

Date

07/06/18	
----------	--

#### **Operator Signature**

I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

D. / althe

**Operator Signature** 

**Operator Title** 

Date

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# Appendix 2 Operation Information

#### **Operation Description**

Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management, including atypical manure (contributing animal groups, collection, storage and handling procedures); mortality composting management.

Kiliti's Family Farm, LLC operates a grain, forage and beef cattle farm in Luzerne County, PA. The operation is proposing to construct a duck barn at the operation in 2019. The operation consists of 35.9 acres of cropland of which 19 acres are typically kept in hay, 18.4 acres of pasture and 19.2 acres of farmstead. Cattle have access to a 6.7 acre wooded section of pasture, identified as field DKP2; however these acres were not included in the AEU per acre calculation for this operation because they are not managed as cropland, hayland or pasture. The operation's current crop rotation for fields DK1 through DK7 is one year of corn grain followed by six years of alfalfa-grass hay. The operation's current crop rotation for field EH1 is two years of corn grain followed by one year of soybeans. Corn and soybeans are established using no-till planting methods. Fields are moldboard plowed and disked in the spring prior to seeding hay. The cattle herd averages 20 beef finishing cattle. Cattle have free access to pasture year round from the cattle barn. Collected cattle manure is handled as a solid and accumulates in the cattle barn. Collected cattle manure is applied for corn, soybeans and hay in the spring and fall. The proposed duck operation will average 13 flocks per year of 19,500 starter ducks and 19,500 finisher ducks. Starter ducks will be kept in the starter portion of the duck barn for 17 days and then moved to the finisher portion of the duck barn for 21 additional days. Ducks will be 100% confined to the duck barn. Duck manure will be handled as a liquid and will be transferred using a scraper and gravity flow pipe system to a proposed HDPE lined earthen manure storage pond. Duck manure will be applied for corn and soybeans in the spring and fall, as well as, hay in the spring, summer and fall. Excess duck manure will be exported to known importers for application on cropland. Mortalities will be incinerated on the operation. Ashes from the incinerator will be added to the proposed HDPE lined earthen manure storage pond.

### County(s)

Luzerne County / Salem Township

#### Name of Receiving Stream(s)/Watershed(s)

Unnamed Tributary to Walker Run – CWF

#### **Notation of Special Protection Waters**

None

#### **Operation Acres**

Total Acres: 80.2 acres

#### **Total Acres Available for Nutrient Application Under Operator's Control**

Owned: 40.0 acres

Rented: 14.3 acres

#### Names & Addresses of Owners of Rented or Leased Land

Edward Heller, 4210 North Market Street, Berwick, PA 18603

#### **Existing Manure Storages & Capacity**

Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures.

There are no manure storage structures on the operation at this time.

#### Manure Application Equipment Capacity & Practical Application Rates

Description of application equipment, practical application rates based on calibration and calibration method used, the data recorded during equipment calibration is to be retained on the farm. If applicable, name and Act 49 certification number of custom applicator.

The operation uses an International Harvester 550 box type manure spreader for solid cattle manure application. The spreader holds approximately 135 cubic feet or approximately 3.75 tons of manure. Based on the operator's records, the average manure application rate is 1 load or 3.75 tons per acre for this manure spreader. The operation will use a custom manure applicator to apply liquid duck manure. Kendal Weaver 227-MB1, Tri County Spreading, 5144 Snydertown Road, Paxinos, PA 17860, 570-672-2550. The custom manure applicators equipment has been calibrated to apply manure at the rates listed in this plan.

Appendix 3 Manure Group Information Crop Yrs. 2019	Liquid Duck	Manure	Beef Finisher Manure			
Manure Report Date (note if averaging several reports)	Book Value		April 12, 2018			
Laboratory Name	PSU Agronomy Guide		Spectrum Analytic, Inc.			
Manure Type	Poultry	-	Other			
Manure Unit (Ibs/ton or 1000 gal)	lb/1000 gal		lb/ton			
Total Nitrogen (N) (lbs/ton or 1000 gal)	33.00		12.80			
Ammonium N (NH₄-N) (Ibs/ton or 1000 gal)	Complete NH4-N		1.40			
Total Organic N (lbs/ton or 1000 gal)	Check N values in Manure Avg Input	Go to NMP Index	11.40			
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	23.00	Go to Appendix 3 Input	8.40			
Total Potash (K <sub>2</sub> O) (Ibs/ton or 1000 gal)	16.00	Go to Manure Avg Input	14.40			
Percent Solids	5.00	Grazing Calculator	27.65			
PSC Value (analytical or book value)	0.80		0.80			
Percent Moisture	95.00		72.35			
Manure Group AEU's	87.23	-	19.00			
Description: Site & Season Applied	Earthen Manure Storage	Summer & Fall	Cattle Barn	Spring & Fall		
Inventory Method	Calculated		Records			
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.		
Manure Group Identification	Liquid Duck Manure		Beef Finisher Manure	Beef Finisher Manure -		
CALCULATED: Total Manure Collected Per Manure Group	1,245,529.8			127.4		
Units	gallons			Tons		
RECORDS: Total Manure Collected Per Manure Group			19.0			
Unit			tons			
	Collected	Uncollected	Collected	Uncollected		
Manure Used On-Farm	223,400.0	0.0	24.0	127.3		
Units	Gallons		Tons	Tons		
Manure Exported	1,022,129.8		0.0			
Units	gallons		tons			
Manuna Allegetica: Delet	0.0	0.0	-5.0	0.1		
Ivianure Allocation Balance	Gallons		Tons	Tops		
Manure Balance as a	GailUlis		10115	1015		
Percent of Total Manure Collected	0.0%		-26.3%			
Total Rainfall and Runoff	181,614		0			
	gallons		tons			

Appendix 3 Manure Group Information Crop Yrs. 2019	Liquid Duck	Manure	Beef Finisher Manure				
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values			
Animal Group 1	Starter Duck		Beef Finishing Cattle	Beef Finishing Cattle			
Animal Type	Duck, starter: 0–17 days		Beef Finishing: 8-24 mo.	Total Nitrogen (N) lbs/ton			
Animal Number	19,500	-	20	14.00			
Animal Weight	1.36		950	Total Phosphate (P2O5) lbs/ton			
Animal Group AUs	26.52		19.00	5.00			
Animal Group AEUs	16.06	-	19.00	Total Potash (K2O) lbs/ton			
Daily Manure Production	13.0		49.0	8.00			
Total Days Manure Produced	221		365	PSC Value			
Total Manure Produced	76,192			0.80			
Days On Pasture	0		365				
Hours Per Day On Pasture	0		18				
Total Bedding	0			Grazing Calculator			
Total Washwater	216,667						
CALCULATED - Total Uncollected Manure Per Animal Group			127.4	127 - Tons			
CALCULATED-Total Manure Collected Per Animal Group	292,859	App 3 Input					
Animal Group 2	Finisher Duck						
Animal Type	Duck, finisher: 17-38 days	-					
Animal Number	19500						
Animal Weight	4.88	-					
Animal Group AUs	95.16						
Animal Group AEUs	71.17	-					
Daily Manure Production per AU	13.0						
Total Days Manure Produced	273	-					
Total Manure Produced	337,723						
Days On Pasture	0						
Hours Per Day On Pasture	0						
Total Bedding	0						
Total Washwater	433,334						
CALCULATED - Total Uncollected Manure Per Animal Group							
CALCULATED-Total Manure Collected Per Animal Group	771,057	App 3 Input					

Appendix 3 Manure Group Information Crop Yrs. 2020	Liquid Duck	Manure	Beef Finisher Manure			
Manure Report Date (note if averaging several reports)	Book Value		April 12, 2018			
Laboratory Name	PSU Agronomy Guide		Spectrum Analytic, Inc.			
Manure Type	Poultry		Other			
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	_	lb/ton	_		
Total Nitrogen (N) (lbs/ton or 1000 gal)	33.00		12.80	_		
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	Complete NH4-N		1.40	_		
Total Organic N (lbs/ton or 1000 gal)	Check N values in Manure Avg Input	Go to NMP Index	11.40			
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	23.00	Go to Appendix 3 Input	8.40			
Total Potash (K <sub>2</sub> O) (Ibs/ton or 1000 gal)	16.00	Go to Manure Avg Input	14.40			
Percent Solids	5.00	Grazing Calculator	27.65			
PSC Value (analytical or book value)	0.80		0.80			
Percent Moisture	95.00		72.35			
Manure Group AEU's	87.23	-	19.00			
Description: Site & Season Applied	Earthen Manure Storage	Summer & Fall	Cattle Barn	Spring & Fall		
Inventory Method	Calculated		Records			
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.		
Manure Group Identification	Liquid Duck Manure		Beef Finisher Manure	Beef Finisher Manure -		
CALCULATED: Total Manure Collected Per Manure Group	1,245,529.8			127.4		
Units	gallons			Tons		
RECORDS: Total Manure Collected Per Manure Group			19.0			
Unit			tons			
	Collected	Uncollected	Collected	Uncollected		
Manure Used On-Farm	212,600.0	0.0	20.3	127.3		
Units	Gallons		Tons	Tons		
Manure Exported	1,032,929.8		0.0			
Units	gallons		tons			
Monuro Allogetica Dela	0.0	0.0	-1.3	0.1		
Ivianure Allocation Balance	Gallons		Tons	Tops		
Manure Balance as a Percent of Total Manure	0.0%		-6.6%	1010		
Collected	181 614		0			
	gallons		tons			
	94.10110					

Appendix 3 Manure Group Information Crop Yrs. 2021	Liquid Duck	Manure	Beef Finisher Manure				
Manure Report Date (note if averaging several reports)	Book Value		April 12, 2018				
Laboratory Name	PSU Agronomy Guide	_	Spectrum Analytic, Inc.				
Manure Type	Poultry		Other				
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	_	lb/ton	_			
Total Nitrogen (N) (lbs/ton or 1000 gal)	33.00		12.80	_			
Ammonium N (NH₄-N) (Ibs/ton or 1000 gal)	Complete NH4-N		1.40				
Total Organic N (lbs/ton or 1000 gal)	Check N values in Manure Avg Input	Go to NMP Index	11.40				
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	23.00	Go to Appendix 3 Input	8.40				
Total Potash (K <sub>2</sub> O) (Ibs/ton or 1000 gal)	16.00	Go to Manure Avg Input	14.40				
Percent Solids	5.00	Grazing Calculator	27.65				
PSC Value (analytical or book value)	0.80		0.80				
Percent Moisture	95.00		72.35				
Manure Group AEU's	87.23		19.00				
Description: Site & Season Applied	Earthen Manure Storage	Summer & Fall	Cattle Barn	Spring & Fall			
Inventory Method	Calculated		Records				
	Collected Calc.	Uncollected Calc.	Collected Calc.	Uncollected Calc.			
Manure Group Identification	Liquid Duck Manure		Beef Finisher Manure	Beef Finisher Manure -			
CALCULATED: Total Manure Collected Per Manure Group	1,245,529.8			127.4			
Units	gallons			Tons			
RECORDS: Total Manure Collected Per Manure Group			19.0				
Unit			tons				
	Collected	Uncollected	Collected	Uncollected			
Manure Used On-Farm	229,800.0	0.0	28.5	127.3			
Units	Gallons		Tons	Tons			
Manure Exported	1,015,729.8		0.0				
Units	gallons		tons				
Manuro Allocation Polocas	0.0	0.0	-9.5	0.1			
	Gallons		Tons	Tons			
Manure Balance as a Percent of Total Manure Collected	0.0%		-50.0%				
Total Rainfall and Runoff	181,614		0				
	gallons		tons				

App. 4: Crop Yrs. 2019		DK1			DK1		DK1			DK2			DK2			
CMU/Field ID																
Acres		3.6			3.6		3.6		2.7			2.7				
Soil Test Report Date		April 12, 2018	}	April 12, 2018		April 12, 2018		April 12, 2018			April 12, 2018					
Laboratory Name	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spectrum Analytic, Inc.			Spectrum Analytic, Inc.			
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	
(Show conversions to ppm in Appendix 10)	40	72	6.5	40	72	6.5	40	72	6.5	55	62	6.3	55	62	6.3	
P Index Part A Evaluation	Fa	Farm Mgmt Change		Fa	irm Mgmt Char	nge	Fa	rm Mgmt Char	nge	Fai	rm Mgmt Char	nge	Fa	rm Mgmt Chan	ge	
Part A Result		Part B		Part B			Part B			Part B			Part B			
Crop	Established	d Alfalfa Grass	with Manure	Established	d Alfalfa Grass	with Manure	Established	d Alfalfa Grass	with Manure	Cor	n for Grain (No	o-till)	Cor	n for Grain (No	o-till)	
Planned Yield		4	ton/A		4	ton/A		4	ton/A		150	bu/A		150	bu/A	
DCI   Soil Test Decommondation (Ik/A)	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	
PS0 Soli Test Recommendation (ID/A)	200	30	210	200	30	210	200	30	210	150	0	90	150	0	90	
User Soil Test Recommendation (Ib/A)																
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	
P Index Application Method																
Double Crop CarryOver N (lb/A)	0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	35	Continuous	sly - Summer rop	0	Continuous	sly - Summer rop	0	Continuous C	sly - Summer rop	35	35 Continuously - Summer Crop		0 Continuously - Summer Crop			
Legume History Description Residual Legume N (lb/A)	0	No Previous	Year Legume	0	0         No Previous Year Legume         0         No Previous Year Legume         40         1st yr. after alfalfa <25% stand		0 1st yr. after alfalfa <25% stand									
Net Nutrients Required (Ib/A)	165	30	210	145	-62	146	125	-154	82	60	0	90	30	-138	-6	
Manure Group	Liquid Duck N	Manure	1	Liquid Duck N	Manure		Liquid Duck N	Manure		Liquid Duck N	lanure		Liquid Duck N	lanure	1	
Application Season: Management (Incorporation, cover crops, etc.)	Early Fall: I winter cro Incorpora	Early spring uti op in double cro ated after 7 day	lization incl. op system: /s or none	Spring: Spring or summer utilization- Incorporation after 7 days or none		Summer: Summer utilization-Incorporation after 7 days or none			Early Fall: Summer utilization with no cover crop: All methods of incorporation			Spring: Spring or summer utilization- Incorporation after 7 days or none				
Availability Fasters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.15			0.15			
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	
N Balanced Manure Rate (ton: gal/A)		33.333	gal/A		29.293	gal/A		25.253	gal/A		12.121	gal/A		6.061	gal/A	
		2 609			0			0			2 609			0	dal/A	
(ton or gal/A; If required by P Index)	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	0.0	Crop P	Removal (lb/A)	0.0	Crop P F	Removal (Ib/A)	60.0	Crop P I	Removal (lb/A)	0.0	
P Index Value		65	0010		65	0.0		65	0.0	F	67	0010		67	0.0	
Planned Manure Rate (ton or gal/A)		4000	gal/A		4000	gal/A		4000	gal/A		6000	gal/A		6000	gal/A	
Nutrients Applied at Planned Manure Rate (Ib/A)	20	92	64	20	92	64	20	92	64	30	138	96	30	138	96	
Nutrient Balance after Manure	0	-62	146	0	-154	82	0	-246	18	30	-138	-6	0	-276	-102	
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	
P Index Application Method	, , , , , , , , , , , , , , , , , , ,	Ň	Ŭ	, v	Ĭ	Ŭ	, v	Ĭ			Ŭ	Ĭ	Ŭ	Ŭ	Ŭ	
Final Nutrient Balance (Ib/A)							n	-246	n				n	-276	-102	
		Multiple Initial	I	-	Multiple	I		Multiple First	, v		Multiple Initial	I		Multiple Final	-102	
Manure Utilized on CMU		14,400	gallons		14,400	gallons		14,400	gallons		16,200	gallons		16,200 gallons		

App. 4: Crop Yrs. 2019		DK3			DK3		DK4			DK5			DK6			
CMU/Field ID																
Acres		2.4			2.4		3.8		2.0			3.2				
Soil Test Report Date		April 12, 2018	3	April 12, 2018			April 12, 2018			April 12, 2018			April 12, 2018			
Laboratory Name	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	Spectrum Analytic, Inc.			Spectrum Analytic, Inc.			Spectrum Analytic, Inc.		
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	рН	ppm P	ppm K	pН	
(Snow conversions to ppm in Appendix 10)	84	72	6.5	84	72	6.5	115	65	6.8	172	56	6.7	83	37	6.5	
P Index Part A Evaluation	Fa	arm Mgmt Chai	nge	Farm Mgmt Change			Fa	irm Mgmt Char	nge	Farm Mgmt Change			Fa	rm Mgmt Chan	ge	
Part A Result		Part B		Part B				Part B			Part B			Part B		
Сгор	Co	rn for Grain (N	o-till)	Co	rn for Grain (No	o-till)	Established	d Alfalfa Grass	with Manure	Cor	n for Grain (No	o-till)	Co	m for Grain (No	o-till)	
Planned Yield	150 bu/A				150	bu/A		4	ton/A		150	) bu/A		150	bu/A	
DCI   Sail Tast Decommon detion (Ib/A)	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	
PSU Soli Test Recommendation (ID/A)	150	0	70	150	0	70	200	0	220	150	0	100	150	0	130	
User Soil Test Recommendation (Ib/A)																
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	15	0	0	0	0	0	0	0	0	15	0	0	15	0	0	
P Index Application Method																
Double Crop CarryOver N (lb/A)	0			0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	35	Continuous	sly - Summer rop	0	Continuous Ci	sly - Summer rop	35	Continuous	sly - Summer rop	35	35 Continuously - Summer Crop		35 Continuously - Summer Crop			
Legume History Description Residual Legume N (lb/A)	0	No Previous	Year Legume	0	0     No Previous Year Legume     0     No Previous Year Legume     40     1st yr. after alfalfa <25% stand		0 No Previous Year Legume									
Net Nutrients Required (Ib/A)	100	0	70	80	-92	6	165	0	220	60	0	100	100	0	130	
Manure Group	Liquid Duck I	Manure		Liquid Duck N	Manure		Liquid Duck Manure			Liquid Duck Manure			Beef Finisher Manure			
Application Season: Management (Incorporation, cover crops, etc.)	Early Fall: cover crop:	Summer utiliza All methods of	ation with no incorporation	Spring: Sp Incorpora	ring or summe ation after 7 day	r utilization- ys or none	Spring: Spring or summer utilization- Incorporation after 7 days or none			Spring: Spring or summer utilization- Incorporation after 7 days or none			Early Fall: Summer utilization with no cover crop: All methods of incorporation			
Availability Fasters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.15			0.20			
P Index Application Method	April - Oct:	No incorp or ir	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	
N Balanced Manure Rate (ton; gal/A)		20,202	gal/A		16,162	gal/A		33,333	gal/A		12,121	gal/A		39	tons/A	
D Removal Palance Manura Pata		2 609	Allen (		0	A/len		2 609	A/lan		2 609	A/lan		7	tons/A	
(ton or gal/A; If required by P Index)	Crop P	Removal (Ib/A)	60.0	Crop P	Removal (Ib/A)	0.0	Crop P	Removal (Ib/A)	60.0	Crop P	Removal (Ib/A)	60.0	Crop P	Removal (lb/A)	60.0	
P Index Value	Clop I	66	00.0	Oldp 1	66	0.0	01001	65	00.0	Citop i	70	00.0		32	00.0	
Planned Manure Rate (top or gal/A)		4000	A/len		4000	A/len		4000	A/len		6000	A/len		3 75	tons/A	
Nutriente Applied et Diepped Menure Dete (lb/A)	20		gai/A	20		gai/A	20		gai/A	20	400	gailA	10		5 A	
Nutrient Bolonce offer Manure Rate (ID/A)	20	92	04	20	92	04 E0	20	92	150	30	100	90	10	32		
	80	-92	6	00	-184	-58	0	-92	150	30	-138	4	90	-32	10	
Supplemental Fertilizer (Ib/A)	0	0	0	60	0	0	0	0	156	30	0	4	0	0	0	
P Index Application Method	-	1	1	-	1	1		1	1		1	1		1		
Final Nutrient Balance (Ib/A)				0	-184	-58	0	-92	0	0	-138	0				
Multiple Application		Multiple Initia	l		Multiple Final									Multiple Initial		
Manure Utilized on CMU		9,600	) gallons	1	9,600	gallons		15,200 gallons			12,000	gallons	12 tons			

App. 4: Crop Yrs. 2019		DK6		DK7			DKP1			EH1			
CMU/Field ID													
Acres		3.2			3.9		18.4			14.3			
Soil Test Report Date		April 12, 2018	}	April 12, 2018			April 12, 2018				April 12, 2018		
Laboratory Name	Spe	ctrum Analytic	, Inc.	Spe	Spectrum Analytic, Inc.			Spectrum Analytic, Inc.			ctrum Analytic,	Inc.	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	
(Show conversions to ppm in Appendix 10)	83	37	6.5	129	131	6.5	74	83	6.0	129	77	6.2	
P Index Part A Evaluation	Fa	rm Mgmt Char	nge	Farm Mgmt Change <150ft			Farm	Mgmt Change	<150ft	Farm Mgmt Change			
Part A Result		Part B			Part B			Part B			Part B		
Crop	Cor	n for Grain (No	o-till)	Planting A	Alfalfa-Grass w	ith Manure	Established	d Pasture (with	out legume)	Cor	n for Grain (No	o-till)	
Planned Yield		150 bu/A			4	ton/A		2.5	ton/A		150	bu/A	
	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	
PSU Soil Test Recommendation (Ib/A)	150	0	130	200	0	120	125	0	100	150	0	70	
User Soil Test Recommendation (Ib/A)													
Other Nutrients Applied (Ib/A)	0	0	0	0	0	0	0	0	0	15	0	0	
(Nutrients applied regardless of manure)													
Double Crop CarryOver N (lb/A)	0	0			0		0			U			
Manure History Description Residual Manure N (Ib/A)	0 Continuously - Summer Crop			35 Continuously - Summer Crop			35	Continuous C	ily - Summer rop	35 Continuousiy - Summer Crop			
Legume History Description Residual Legume N (lb/A)	0 No Previous Year Legume			0 No Previous Year Legume			0	No Previous	Year Legume	40 Soybeans, 40 bu/A			
Net Nutrients Required (Ib/A)	90	-32	76	165	0	120	90	0	100	60	0	70	
Manure Group	Beef Finisher	Manure		Liquid Duck N	lanure		Beef Finishing	g Cattle - Unco	llected	Liquid Duck Manure			
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Sp Incorpora	ring or summe tion after 7 day	r utilization- ys or none	Spring: Spring or summer utilization- Incorporation after 7 days or none			Grazing anytime with nutrient uptake during growing season			Early Fall: Summer utilization with no cover crop: All methods of incorporation			
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.20			0.15			0.20			0.15			
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	Surface app	. when frozen/s	snow covered	April - Oct:	No incorp or in	corp > 1 wk.	
N Balanced Manure Rate (ton; gal/A)		35	tons/A		33,333	gal/A		32	tons/A		12,121	gal/A	
P Romoval Balanco Manuro Pato		3	tons/A		2.609	al/A		8	tons/A		2.609	dal/A	
(ton or gal/A; If required by P Index)	Crop P I	Removal (lb/A)	28.0	Crop P	Removal (lb/A)	60.0	Crop P I	Removal (lb/A)	37.5	Crop P F	Removal (lb/A)	60.0	
P Index Value		32			74			37			79		
Planned Manure Rate (ton or gal/A)		3.75	tons/A		4000	gal/A		6.92	tons/A		6000	gal/A	
Nutrients Applied at Planned Manure Rate (Ib/A)	10	32	54	20	92	64	19	35	55	30	138	- 96	
Nutrient Balance after Manure	80	-64	22	0	-92	56	71	-35	45	30	-138	-26	
Supplemental Fertilizer (Ib/A)	80	0	22	0	0	56	71	0	45	30	0	0	
	00	U		0	0	50		0			0	0	
											100		
Final Nutrient Balance (Ib/A)	0	-64	0	0	-92	0	0	-35	0	0	-138	-26	
Multiple Application		Multiple Final											
Manure Utilized on CMU	1	12	tons		15,600	gallons		127	tons	85,800 gallons			

App. 4: Crop Yrs. 2020		DK1		DK1		DK1			DK2			DK2				
CMU/Field ID																
Acres		3.6			3.6			3.6			2.7			2.7		
Soil Test Report Date		April 12, 2018	3		April 12, 2018	}		April 12, 2018	3		April 12, 2018	3		April 12, 2018	5	
Laboratory Name	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic.	, Inc.	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	рН	
(Show conversions to ppm in Appendix 10)	40	72	6.5	40	72	6.5	40	72	6.5	55	62	6.3	55	62	6.3	
P Index Part A Evaluation	Fa	rm Mgmt Char	nge	Fa	irm Mgmt Chan	nge	Fa	arm Mgmt Char	nge	Fa	rm Mgmt Char	nge	Farm Mgmt Change			
Part A Result	-	Part B		Part B		Part B			Part B				Part B			
Crop	Establishe	d Alfalfa Grass	with Manure	Established Alfalfa Grass with Manure		Established Alfalfa Grass with Manure			Planting Alfalfa-Grass with Manure			Planting /	Alfalfa-Grass w	ith Manure		
Planned Yield	4 ton/A		4 ton/A		4 ton/A			4 ton/A			4 ton/A					
	N	N P205 K20		N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	
PSU Soil Test Recommendation (Ib/A)	200	30	210	200	30	210	200	30	210	200	0	220	200	0	220	
User Soil Test Recommendation (Ib/A)						-			-		-	-		-	-	
Other Nutrients Applied (Ib/A)			-	-	_	-			-	-				-		
(Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method																
Double Crop CarryOver N (lb/A)	0		0			0		0			0					
Manure History Description Residual Manure N (Ib/A)	35 Continuously - Summer Crop		0	Continuous Ci	sly - Summer rop	0	Continuous C	sly - Summer rop	35	Continuous C	sly - Summer rop	0	Continuous Cr	sly - Summer rop		
Legume History Description Residual Legume N (lb/A)	0	No Previous	Year Legume	0	No Previous	Year Legume	0 No Previous Year Legume		0	No Previous Year Legume		0	No Previous	Year Legume		
Net Nutrients Required (Ib/A)	165	30	210	145	-62	146	125	-154	82	165	0	220	155	-32	166	
Manure Group	Liquid Duck I	Vanure	-	Liquid Duck Manure			Liquid Duck I	Vanure	•	Beef Finisher	Manure	•	Beef Finisher	Manure	•	
Application Season: Management (Incorporation, cover crops, etc.)	Early Fall: winter cro Incorport	Early spring ut op in double cr ated after 7 da	ilization incl. op system: ys or none	Spring: Spring or summer utilization- Incorporation after 7 days or none		Summer: Summer utilization-Incorporation after 7 days or none		Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none		ilization incl. op system: ys or none	Spring: Sp Incorpora	ring or summer ation after 7 day	r utilization- ys or none			
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.20			0.20			
P Index Application Method	April - Oct:	No incorp or ir	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	icorp > 1 wk.	
N Balanced Manure Rate (ton; gal/A)		33,333	3 gal/A		29,293	gal/A		25,253	gal/A		65	tons/A		61	tons/A	
P Removal Balance Manure Rate		2,609	gal/A		0	gal/A		0	gal/A		7	tons/A		3	tons/A	
(ton or gal/A; If required by P Index)	Crop P	Removal (Ib/A)	60.0	Crop P	Removal (lb/A)	0.0	Crop P	Removal (lb/A)	0.0	Crop P	Removal (lb/A)	) 60.0	Crop P	Removal (lb/A)	28.0	
P Index Value		65			65			65			19			19		
Planned Manure Rate (ton or gal/A)		4000	gal/A		4000	gal/A		4000	gal/A		3.75	tons/A		3.75	tons/A	
Nutrients Applied at Planned Manure Rate (Ib/A)	20	92	64	20	92	64	20	92	64	10	32	54	10	32	54	
Nutrient Balance after Manure	0	-62	146	0	-154	82	0	-246	18	0	-32	166	0	-64	112	
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	18	0	0	0	0	0	28	
P Index Application Method	-		-	-	-	-	-		-	-	-	-	-	1	-	
Final Nutrient Balance (Ib/A)							0	-246	0				0	-64	84	
		Multiple Initia	I		Multiple	I		Multiple Final			Multiple Initia	I	-	Multiple Final	L	
		1/ /00			1/ ///			1/ //			10	) tons				
	1	14,400	galions	1	14,400	galions	1	14,400	galions	1	10	10115	1	10	10115	

App. 4: Crop Yrs. 2020		DK3			DK3			DK4			DK5			DK6		
CMU/Field ID																
Acres		2.4			2.4			3.8			2.0			3.2		
Soil Test Report Date		April 12, 2018			April 12, 2018	3		April 12, 2018	1		April 12, 2018	3		April 12, 2018	1	
Laboratory Name	Spe	ctrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	рН	
(Show conversions to ppm in Appendix 10)	84	72	6.5	84	72	6.5	115	65	6.8	172	56	6.7	83	37	6.5	
P Index Part A Evaluation	Fa	rm Mgmt Char	ge	Farm Mgmt Change			Fa	rm Mgmt Chan	ige	Fa	rm Mgmt Char	nge	Farm Mgmt Change			
Part A Result		Part B		Part B			Part B				Part B		Part B			
Crop	Planting A	Alfalfa-Grass w	ith Manure	Planting	Planting Alfalfa-Grass with Manure			Established Alfalfa Grass with Manure			Alfalfa-Grass w	rith Manure	Planting Alfalfa-Grass with Manure			
Planned Yield	4 ton/A		4 ton/A		4 ton/A				4	ton/A	4 ton/A					
	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K2O	
PSU Soil Test Recommendation (lb/A)	200	0	210	200	0	210	200	0	220	200	0	220	200	0	230	
User Soil Test Recommendation (lb/A)																
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P Index Application Method					1	1					1	1			4	
Double Crop CarryOver N (Ib/A)	0		0			0			0			0				
Manure History Description Residual Manure N (Ib/A)	35 Continuously - Summer Crop		0	Continuous C	sly - Summer rop	35	Continuous Ci	ily - Summer rop	35	Continuously - Summer Crop		35 Continuously - Sumr Crop		ly - Summer		
Legume History Description Residual Legume N (lb/A)	0	0 No Previous Year Legume		0 No Previous Year Legume		0	No Previous	Year Legume	0	No Previous	Year Legume	0	No Previous	Year Legume		
Net Nutrients Required (Ib/A)	165	0	210	145	-92	146	165	0	220	165	0	220	165	0	230	
Manure Group	Liquid Duck N	lanure		Liquid Duck Manure			Liquid Duck N	Nanure		Liquid Duck I	Manure		Liquid Duck N	lanure	4	
Application Season: Management (Incorporation, cover crops, etc.)	Early Fall: I winter cro Incorpora	Early spring uti op in double cro ated after 7 day	lization incl. op system: vs or none	Spring: Sp Incorpora	oring or summe ation after 7 day	r utilization- ys or none	Early Fall: winter cro Incorpora	Early spring uti op in double cro ated after 7 day	lization incl. op system: /s or none	Spring: Sp Incorpora	Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: I winter cro Incorpora	Early spring util p in double cro ated after 7 day	lization incl. op system: ys or none	
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
Availability Factors (Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.15			0.15			
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	1corp > 1 wk.	
N Balanced Manure Rate (ton; gal/A)		33,333	gal/A		29,293	gal/A		33,333	gal/A		33,333	gal/A		33,333	3 gal/A	
P Romoval Balance Manure Pate		2.609	nal/A		0	) gal/A		2.609	gal/A		2.609	A/lan		2.609	) dal/A	
(ton or gal/A; If required by P Index)	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	<u> </u>	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	60.0	Crop P I	Removal (lb/A)	) 60 0	
P Index Value		66	00.0		66	0.0		65	00.0		54	00.0		73		
Planned Manure Rate (ton or gal/A)		4000	gal/A		4000	gal/A		4000	gal/A		4000	gal/A		4000	) gal/A	
Nutrients Applied at Planned Manure Rate (Ib/A)	20	02	64	20	02	64	20	02	64	20	02	64	20	02	64	
Nutrient Balance after Manure	0	-92	146	0	-184	82	0	-92	156	0	-92	156	0	-92	166	
Supplemental Fertilizer (Ib/A)	0	-02	0	0	-10-	82	0	-32	156	0	-32	156	0	-02	0	
	U	U	U	U	U	02	U	U	100	U	U	100	0			
				•	404	•	•	00	•	•	00	•			1	
	-	0		U	-184	U	U	-92	U	U	-92	U		Maddad 1 201	<u> </u>	
		iviuitipie Initial			iviuitiple Final									Multiple Initial		
Manure Utilized on CMU		9,600 gallons			9,600	gallons		15,200	gallons		8,000	gallons		12,800	/ gallons	

App. 4: Crop Yrs. 2020	DK6			DK7		DKP1			EH1				
CMU/Field ID													
Acres		3.2			3.9			18.4			14.3		
Soil Test Report Date		April 12, 2018	3		April 12, 2018			April 12, 2018			April 12, 2018		
Laboratory Name	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.	
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	рН	ppm P	ppm K	pН	
(Show conversions to ppm in Appendix 10)	83	37	6.5	129	131	6.5	74	83	6.0	129	77	6.2	
P Index Part A Evaluation	Fa	rm Mgmt Char	nge	Farm	Mgmt Change	<150ft	Farm	Mgmt Change	<150ft	Fa	rm Mgmt Char	ge	
Part A Result		Part B			Part B			Part B			Part B		
Crop	Planting A	Alfalfa-Grass w	vith Manure	Established	d Alfalfa Grass	with Manure	Establishe	d Pasture (with	out legume)	Cor	n for Grain (No	o-till)	
Planned Yield		4	ton/A		4	ton/A		2.5	ton/A		150	bu/A	
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	
PSU Soil Test Recommendation (lb/A)	200	0	230	200	0	120	125	0	100	150	0	70	
Liser Soil Test Recommendation (Ib/A)		-				-	-	-			-		
Other Nutrients Applied (Ib/A)													
(Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	15	0	0	
P Index Application Method													
Double Crop CarryOver N (lb/A)	0		0			0			0				
Manure History Description Residual Manure N (Ib/A)	0 Continuously - Summer Crop		35	Continuous Ci	ly - Summer rop	35 Continuously - Summer Crop			35 Continuously - Summ Crop				
Legume History Description Residual Legume N (lb/A)	0	No Previous	Year Legume	0	No Previous	Year Legume	ne 0 No Previous Year Legume		0	No Previous	Year Legume		
Net Nutrients Required (lb/A)	145	-92	166	165	0	120	90	0	100	100	0	70	
Manure Group	Liquid Duck N	Manure	<u> </u>	Liquid Duck N	Manure	Į	Beef Finishin	g Cattle - Unco	llected	Liquid Duck Manure		I	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Sp Incorpora	ring or summe ttion after 7 da	r utilization- ys or none	Spring: Sp Incorpora	ring or summe ation after 7 day	r utilization- /s or none	Grazing ar duri	nytime with nut ing growing se	with nutrient uptake wing season		ring or summe tion after 7 day	r utilization- /s or none	
Availability Fasters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.15			0.15			0.20			0.15			
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	Surface app	. when frozen/s	snow covered	April - Oct:	No incorp or in	corp > 1 wk.	
N Balanced Manure Rate (ton; gal/A)		29,293	gal/A		33,333	gal/A		32	tons/A		20,202	gal/A	
P Removal Balance Manure Rate		C	) gal/A		2.609	gal/A		8	tons/A		2.609	gal/A	
(ton or gal/A; If required by P Index)	Crop P I	Removal (lb/A)	9	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	37.5	Crop P I	Removal (lb/A)	60.0	
P Index Value	01001	73	0.0	0.00	74	00.0	Crop I	37	01.0	olop I I	79	00.0	
		1000	aol/A		4000	aal/A		6.02	tono/A		6000	aol/A	
	00	4000	gai/A	00	+000	yavA	40	0.32	10115/A	00	400	yai/A	
Nutrients Applied at Planned Manure Rate (Ib/A)	20	92	64	20	92	64	19 35 55		30	138	96		
Nutrient Balance after Manure	0	-184	102	0	-92	56	71 -35 45		70	-138	-26		
Supplemental Fertilizer (Ib/A)	0	0	102	0	0	56	56 71 0 45		70	0	0		
P Index Application Method		T	1		1	T		T	T		<b>T</b>	1	
Final Nutrient Balance (Ib/A)	0	-184	0	0	-92	0	0	-35	0	0	-138	-26	
Multiple Application		Multiple Final											
Manure Utilized on CMU		12,800	) gallons		15,600	gallons	127 tons			85,800 gallons			

App. 4: Crop Yrs. 2021		DK1		DK1			DK1			DK2			DK2		
CMU/Field ID															
Acres		3.6			3.6			3.6			2.7			2.7	
Soil Test Report Date		April 12, 2018	3		April 12, 2018			April 12, 2018			April 12, 2018			April 12, 2018	
Laboratory Name	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	40	72	6.5	40	72	6.5	40	72	6.5	55	62	6.3	55	62	6.3
P Index Part A Evaluation	Fa	irm Mgmt Char	nge	Farm Mgmt Change		Fa	arm Mgmt Char	ige	Fa	rm Mgmt Char	ige	Farm Mgmt Change			
Part A Result		Part B		Part B		Part B				Part B		Part B			
Сгор	Establishee	d Alfalfa Grass	with Manure	Established	Established Alfalfa Grass with Manure		Established Alfalfa Grass with Manure			Established Alfalfa Grass with Manure			Established	Alfalfa Grass	with Manure
Planned Yield	4 ton/A		4 ton/A		4 ton/A			4 ton/A			4 ton/A				
	Ν	P2O5	P2O5 K2O		P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
PSU Soil Test Recommendation (Ib/A)	200	30	210	200	30	210	200	30	210	200	0	220	200	0	220
User Soil Test Recommendation (Ib/A)															
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			1												
Double Crop CarryOver N (lb/A)	0		0			0			0			0			
Manure History Description Residual Manure N (Ib/A)	35 Continuously - Summer		0	Continuous	ly - Summer	0	Continuous	ly - Summer	35	Continuous	ly - Summer	0	Continuous	ly - Summer	
Legume History Description Residual Legume N (Ib/A)	0	No Previous	Year Legume	0	No Previous	Year Legume	0	0 No Previous Year Legume		0	No Previous Year Legum		0	No Previous	Year Legume
Net Nutrients Required (Ib/A)	165	30	210	145	-62	146	125	-154	82	165	0	220	145	-92	156
Manure Group	Liquid Duck I	Manure	<u>.</u>	Liquid Duck Manure			Liquid Duck I	Manure	<u>.</u>	Liquid Duck N	lanure	<u>.</u>	Liquid Duck N	lanure	•
Application Season: Management (Incorporation, cover crops, etc.)	Early Fall: winter cro Incorpor	Early spring ut op in double cr ated after 7 day	ilization incl. op system: ys or none	Spring: Spring or summer utilization- Incorporation after 7 days or none		Summer: Summer utilization-Incorporation after 7 days or none		an Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none		lization incl. op system: /s or none	Spring: Sp Incorpora	ring or summe tion after 7 day	r utilization- /s or none		
Availability Fasters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.15			0.15		
P Index Application Method	April - Oct:	No incorp or ir	ncorp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.
N Balanced Manure Rate (ton; gal/A)		33,333	gal/A		29,293	gal/A		25,253	gal/A		33,333	gal/A		29,293	gal/A
P Removal Balance Manure Rate		2,609	) gal/A		0	gal/A		0	gal/A		2,609	gal/A		0	gal/A
(ton or gal/A; If required by P Index)	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	0.0	Crop P	Removal (lb/A)	0.0	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	0.0
P Index Value		65			65			65			67			67	
Planned Manure Rate (ton or gal/A)		4000	gal/A		4000	gal/A		4000	gal/A		4000	gal/A		4000	gal/A
Nutrients Applied at Planned Manure Rate (Ib/A)	20	92	64	20	92	64	20	92	64	20	92	64	20	92	64
Nutrient Balance after Manure	0	-62	146		-154	82		-246	18	0	-92	156		-184	92
Supplemental Fertilizer (Ib/A)	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0
P Index Application Method	U	U	U	0	U	U	0	U	10	U	U	U	U	U	U
Final Nutrient Balance (Ib/A)							0	-246	0						
Multiple Application		Multiple Initia	I		Multiple	I		Multiple Final	I		Multiple Initial	1		Multiple	1
Manura Utilizad on CMU		1/ /00	Laglons		1/ /00	gallons		1/ /00	gallons		10.200	gallons			
		14,400	galions	1	14,400	gailoris		14,400	gallulis		10,000	galions		10,000	galloris

App. 4: Crop Yrs. 2021		DK2		DK3			DK3			DK4			DK4		
CMU/Field ID															
Acres		2.7			2.4			2.4			3.8			3.8	
Soil Test Report Date		April 12, 2018	3		April 12, 2018			April 12, 2018	3		April 12, 2018	3		April 12, 2018	
Laboratory Name	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	рН	ppm P	ppm K	pН	ppm P	ppm K	рН	ppm P	ppm K	pН
(Snow conversions to ppm in Appendix 10)	55	62	6.3	84	72	6.5	84	72	6.5	115	65	6.8	115	65	6.8
P Index Part A Evaluation	Fa	irm Mgmt Chai	nge	Farm Mgmt Change		Farm Mgmt Change			Farm Mgmt Change			Farm Mgmt Change			
Part A Result		Part B		Part B			Part B			Part B		Part B			
Сгор	Established	d Alfalfa Grass	with Manure	Established	d Alfalfa Grass	with Manure	Established Alfalfa Grass with Manure			Established Alfalfa Grass with Manure			Established	Alfalfa Grass	with Manure
Planned Yield		4 ton/A		4 ton/A		4 ton/A			4 ton/A			4 ton/A			
	Ν	P2O5 K2O		N	P2O5	K2O	Ν	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
PSU Soil Test Recommendation (Ib/A)	200	0	220	200	0	210	200	0	210	200	0	220	200	0	220
User Soil Test Recommendation (Ib/A)															
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method			1		1			1	1			1			
Double Crop CarryOver N (lb/A)	0		0			0			0			0			
Manure History Description	0 Continuously - Summer		35	Continuous	ly - Summer	0	Continuous	sly - Summer	35	Continuous	sly - Summer	0 Continuously - Summe		ly - Summer	
Legume History Description Residual Legume N (Ib/A)	0	No Previous	Year Legume	0	No Previous	Year Legume	0	0 No Previous Year Legume		0	No Previous Year Legum		0	0 No Previous Year Legum	
Net Nutrients Required (Ib/A)	125	-184	92	165	0	210	145	-92	146	165	0	220	155	-32	166
Manure Group	Liquid Duck I	Manure	-	Liquid Duck Manure			Liquid Duck I	Manure	•	Beef Finisher	Manure	-	Beef Finisher	Manure	•
Application Season: Management (Incorporation, cover crops, etc.)	Summer: Sur af	mmer utilization ter 7 days or n	n-Incorporation	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none		Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none		ilization incl. op system: ys or none	Spring: Sp Incorpora	ring or summe tion after 7 day	r utilization- /s or none		
Availability Fasters	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.20			0.20		
P Index Application Method	April - Oct:	No incorp or ir	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	ncorp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.
N Balanced Manure Rate (ton; gal/A)		25,253	gal/A		33,333	gal/A		29,293	3 gal/A		65	tons/A		61	tons/A
P Removal Balance Manure Rate		(	) gal/A		2,609	gal/A		0	) gal/A		7	tons/A		3	tons/A
(ton or gal/A; If required by P Index)	Crop P	Removal (lb/A)	0.0	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	0.0	Crop P	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	28.0
P Index Value	0.001	67	0.0	orop i	66	00.0	erop i	66	0.0	orop i	51	00.0	erop i	51	20.0
Planned Manure Rate (ton or gal/A)		4000	gal/A		4000	gal/A		4000	gal/A		3.75	tons/A		3.75	tons/A
Nutrients Applied at Planned Manure Rate (Ib/A)	20	92	64	20	92	64	20	92	64	10	32	54	10	32	54
Nutrient Balance after Manure	0	-276	28	0	_02	1/6	0	-18/	82	0	-32	166	0	-64	112
Supplemental Eartilizer (/k/A)	0	-210	20	0	-92	0	0	-104	02	0	-32	00	0	-04	112
P Index Application Method	U	U	20	U	U	U	U	U	82	U	U	U	U	U	112
Final Nutrient Balance (Ib/A)	n	-276	n				0	-18/	0				n	-64	0
	, v	Multiple Fine	l v		Multiple Initial	1	v	Multiple Final	l v		Multiple Initial	1	, v	Multiple Final	v
			)						)				Multiple Final		
Manure Utilized on CMU		10,800 gallons			9,600	gallons		9,600	gallons		14	tons		14	tons

App. 4: Crop Yrs. 2021		DK5			DK6			DK6			DK7			DKP1	
CMU/Field ID															
Acres		2.0			3.2			3.2			3.9			18.4	
Soil Test Report Date		April 12, 2018			April 12, 2018			April 12, 2018			April 12, 2018			April 12, 2018	
Laboratory Name	Spe	ctrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.	Spe	ectrum Analytic	, Inc.	Spe	ctrum Analytic	, Inc.
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН	ppm P	ppm K	pН
(Show conversions to ppm in Appendix 10)	172	56	6.7	83	37	6.5	83	37	6.5	129	131	6.5	74	83	6.0
P Index Part A Evaluation	Fa	rm Mgmt Char	Change		Farm Mgmt Change		Fa	rm Mgmt Chan	ge	Farm	Mgmt Change	<150ft	Farm Mgmt Change <150ft		
Part A Result		Part B		Part B				Part B			Part B		Part B		
Crop	Established	I Alfalfa Grass	with Manure	Established	Established Alfalfa Grass with Manure			Established Alfalfa Grass with Manure			Established Alfalfa Grass with Manure			d Pasture (with	out legume)
Planned Yield	4 ton/A		4 ton/A		4 ton/A		4 ton/A			2.5 ton/A					
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O
PSU Soil Test Recommendation (lb/A)	200	0	220	200	0	230	200	0	230	200	0	120	125	0	100
User Soil Test Recommendation (lb/A)		-	-		-			-			-	-	-	-	
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method					1						1				
Double Crop CarryOver N (lb/A)	0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	35	35 Continuously - Summer Crop		35	Continuous	ly - Summer rop	0	Continuous Ci	ly - Summer op	35	Continuous	ily - Summer rop	35	Continuous	ly - Summer rop
Legume History Description Residual Legume N (lb/A)	0	No Previous	Year Legume	0	No Previous	Year Legume	0	No Previous	revious Year Legume 0 No Previous Year Legume		Year Legume	0 No Previous Year Leg		Year Legume	
Net Nutrients Required (Ib/A)	165	0	220	165	0	230	145	-92	166	165	0	120	90	0	100
Manure Group	Liquid Duck N	lanure		Liquid Duck Manure			Liquid Duck N	lanure	1	Liquid Duck N	Manure	1	Beef Finishin	g Cattle - Unco	llected
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Sp Incorpora	ring or summe tion after 7 day	r utilization- ys or none	Early Fall: winter cro Incorpora	Early spring uti op in double cro ated after 7 day	lization incl. op system: vs or none	Spring: Sp Incorpora	ring or summe tion after 7 day	r utilization- /s or none	Spring: Sp Incorpora	ring or summe ation after 7 day	r utilization- ys or none	Grazing ar duri	nytime with nut	rient uptake ason
	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
Availability Factors (Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.15			0.20		
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	April - Oct:	No incorp or in	corp > 1 wk.	Surface app	when frozen/s	snow covered
N Balanced Manure Rate (ton: gal/A)		33,333	gal/A		33,333	gal/A		29,293	gal/A		33,333	gal/A		32	tons/A
D Demoural Dalance Manute Data		2 609	A/len		2 609			0	aal/A		2 609	asl/A		8	tons/A
(ton or gal/A; If required by P Index)	Crop P I	Removal (lb/A)	60.0	Crop P	Removal (lb/A)	60.0	Crop P I	Removal (lb/A)	0.0	Crop P	Removal (Ib/A)	60.0	Crop P	emoval (lb/A)	37.5
	010011	54	00.0		73	00.0	Сюрт	73	0.0	01001	74	00.0	Сюрт	37	57.5
Planned Manura Rate (ten er gel/A)		4000	aal/A		10	aal/A		4000	aal/A		4000	aol/A		6.02	tono/A
		4000	yai/A		4000	yai/A		4000	yai/A		4000	yai/A	40	0.32	10115/A
Nutrients Applied at Planned Manure Rate (Ib/A)	20	92	64	20	92	64	20	92	64	20	92	64	19	35	55
Nutrient Balance after Manure	0	-92	156	156 0 -92 166		166	0	-184	102	0	-92	56	71	-35	45
Supplemental Fertilizer (Ib/A)	0	0	156	0	0	0	0	0	102	0	0	56	71	0	45
P Index Application Method		<b>T</b>	<b>T</b>		1	T		T	r		1	T		<b>T</b>	T
Final Nutrient Balance (Ib/A)	0	-92	0				0	-184	0	0	-92	0	0	-35	0
Multiple Application					Multiple Initial			Multiple Final							
Manure Utilized on CMU		8,000 gallons			12,800	gallons		12,800 gallons			15,600	600 gallons 127 tons			

App. 4: Crop Yrs. 2021		EH1	
CMU/Field ID			
Acres		14.3	
Soil Test Report Date		April 12, 2018	
Laboratory Name	Spe	ctrum Analytic,	Inc.
Soil Test Levels (Mehlich-3 P & K)	ppm P	ppm K	рН
(Show conversions to ppm in Appendix 10)	129	77	6.2
P Index Part A Evaluation	Fa	rm Mgmt Chan	ge
Part A Result		Part B	
Сгор	Soy	beans with Ma	nure
Planned Yield		40	bu/A
DSU Soil Toot Decommondation (Ib/A)	N	P2O5	K2O
FS0 Soli Test Recommendation (ID/A)	128	0	80
User Soil Test Recommendation (lb/A)			
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	0	0	0
P Index Application Method			
Double Crop CarryOver N (Ib/A)	0		
Manure History Description Residual Manure N (lb/A)	35	Continuous Cr	ly - Summer op
Legume History Description Residual Legume N (lb/A)	0	No Previous	Year Legume
Net Nutrients Required (lb/A)	93	0	80
Manure Group	Liquid Duck N	lanure	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Sp Incorpora	ring or summer tion after 7 day	utilization- s or none
Availability Eastern	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.15		
P Index Application Method	April - Oct:	No incorp or in	corp > 1 wk.
N Balanced Manure Rate (ton; gal/A)		18,788	gal/A
P Removal Balance Manure Rate		1,739	gal/A
(ton or gal/A; If required by P Index)	Crop P F	Removal (lb/A)	40.0
P Index Value		79	
Planned Manure Rate (ton or gal/A)		6000	gal/A
Nutrients Applied at Planned Manure Rate (lb/A)	30	138	96
Nutrient Balance after Manure	0	-138	-16
Supplemental Fertilizer (Ib/A)	0	0	0
	, v	Ŭ	, v
	•	120	16
	U	-130	-10
		05 000	
Manure Utilized on CMU	1	85,800	gallons

Appendix 5 - P Index					Go to NMP Index	
Crop Yrs. 2019	Pennsylvania P Inde	ex Version 2	Go to App 4 Input			
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING 1	TOOL	CMU/Field ID	DK1
Is the CMU in a Special Protection watershed?		Is the CMU in a Special	Protection watershed?			No
A significant farm management change as defined by Act 38?		Is there a significant far	m management change as d	efined by Act 38?	If the answer is Yes to	Yes
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	40
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dista	ance from this CMU to receiv	ing water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?			No
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B volu	untarily? (Answers are No t	o all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)			Mehlich 3 Soil Test P (pp	om P)		40
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)				8		
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0, 0, 0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-, -, -
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0, 0, 0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-, -, -
Fertilizer Rating = Fertilizer Rate x Fertilizer Application N	lethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	92, 92, 92
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.6, 0.6, 0.6
P SOURCE COEFFICIENT <sup>3</sup>	Re	fer to: Test results for P	Source Coefficient OR Book	values from P Index Fact Sheet	Table 1	0.8, 0.8, 0.8
Manure Rating = Manure Rate x Manure Application Meth	od x P Source Coeff	icient				132
Source Factor Sum						140
PART B: TRANSPORT FACTORS			Soil Loss (top/acre/y	7)		16
EROSION			Soli Loss (Ion/Actery)	·)		1.0
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 Drainage Class is Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance	•			6
MODIFIED CONNECTIVITY	50 ft. R APPLIES TO	0.85 iparian Buffer D DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24						0.23
P Index Value = 2 x Source x Transport						65
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied		

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Crop Yrs. 2019

PART A: SCREENING TOOL CMU/Field ID	DK2	DK3	DK4	DK5	DK6	DK7	DKP1
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Soil Test Mehlich 3 P greater than 200 ppm P?	55	84	115	172	83	129	74
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	Yes	Yes
Is winter manure application planned for this field ?	No	No	No	No	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	55	84	115	172	83	129	74
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	11	17	23	34	17	26	15
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0, 0	0, 0	0	0	0, 0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-y	-, -	-	-	-, -	-	-
SUPPLEMENTAL P FERTILIZER	0, 0	0, 0	0	0	0, 0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-, -	-, - -	-	-	-, -	-	•
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	138, 138	92, 92	92	138	32, 32	92	35
MANURE APPLICATION METHOD <sup>3</sup>	0.6, 0.6	0.6, 0.6	0.6	0.6	0.6, 0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8, 0.8	0.8, 0.8	0.8	0.8	0.8, 0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	132	88	44	66	30	44	28
Source Factor Sum	143	105	67	100	47	70	43
PART B: TRANSPORT FACTORS EROSION	1.6	1.6	1.6	0.34	0.34	2.8	0.42
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	2	6	4	4	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface	6	8	12	8	8	13	10
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.32	0.48	0.35	0.35	0.53	0.43
P Index Value = 2 x Source x Transport	67	66	65	70	32	74	37
		·			•		

Low: 59 or less

Nitrogen based management

Crop Yrs. 2019

0100 110. 2010	
PART A: SCREENING TOOL CMU/Field ID	EH1
Is the CMU in a Special Protection watershed?	No
A significant farm management change as defined by Act 38?	Yes
Soil Test Mehlich 3 P greater than 200 ppm P?	129
Contributing Distance from CMU to receiving water <150 ft.?	No
Is winter manure application planned for this field ?	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	129
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	26
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-
SUPPLEMENTAL P FERTILIZER	0
	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0
MANURE P RATE	138
MANURE APPLICATION METHOD <sup>3</sup>	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8
Manure Rating = Manure Rate x Manure Application Metho	66
Source Factor Sum	92
PART B: TRANSPORT FACTORS	0.36
EROSION	0.00
RUNOFF POTENTIAL	4
SUBSURFACE DRAINAGE	0
CONTRIBUTING DISTANCE	6
Transport Sum = Erosion + Runoff Potential + Subsurface	10
MODIFIED CONNECTIVITY	1.0
Transport Sum x Modified Connectivity / 24	0.43
P Index Value = 2 x Source x Transport	79
Low: 59 or less	

Appendix 5 - P Index					Go to NMP Index						
Crop Yrs. 2020	Pennsylvania P Inde	ennsylvania P Index Version 2									
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	FOOL	CMU/Field ID	DK1					
Is the CMU in a Special Protection watershed?		Is the CMU in a Special	Protection watershed?			No					
A significant farm management change as defined by Act 38?		Is there a significant far	m management change as d	lefined by Act 38?	If the answer is Yes to	Yes					
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	40					
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dista	ance from this CMU to receiv	ing water less than 150 ft.?	Part B must be used.	No					
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?	-		No					
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B volu	untarily? (Answers are Not	to all Part A questions.)		No					
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)			Mehlich 3 Soil Test P (pp	om P)		40					
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						8					
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0, 0, 0					
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-, -, -					
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0, 0, 0					
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-, -, -					
Fertilizer Rating = Fertilizer Rate x Fertilizer Application N	ethod					0					
MANURE P RATE					Manure P (Ib P2O5/acre)	92, 92, 92					
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.6, 0.6, 0.6					
P SOURCE COEFFICIENT <sup>3</sup>	Re	fer to: Test results for P	Source Coefficient OR Book	values from P Index Fact Shee	Table 1	0.8, 0.8, 0.8					
Manure Rating = Manure Rate x Manure Application Method	od x P Source Coeff	icient				132					
Source Factor Sum						140					
PART B: TRANSPORT FACTORS				->		10					
EROSION			Soli Loss (ton/acre/y	1)		1.0					
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 <i>Drainage Class is</i> Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 <i>Drainage Class is</i> Poorly/Very Poorly	4					
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0					
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0					
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance				6					
MODIFIED CONNECTIVITY	50 ft. R APPLIES TO	0.85 iparian Buffer D DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0					
Transport Sum x Modified Connectivity / 24						0.23					
P Index Value = 2 x Source x Transport						65					
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied							

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Crop Yrs. 2020

PART A: SCREENING TOOL CMU/Field ID	DK2	DK3	DK4	DK5	DK6	DK7	DKP1
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Soil Test Mehlich 3 P greater than 200 ppm P?	55	84	115	172	83	129	74
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	Yes	Yes
Is winter manure application planned for this field ?	No	No	No	No	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	55	84	115	172	83	129	74
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	11	17	23	34	17	26	15
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0, 0	0, 0	0	0	0, 0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-, -	-, -	-	-	-, -	-	-
SUPPLEMENTAL P FERTILIZER	0, 0	0, 0	0	0	0, 0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-, -	-, -	-	-	-, -	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	32, 32	92, 92	92	92	92, 92	92	35
MANURE APPLICATION METHOD <sup>3</sup>	0.6, 0.6	0.6, 0.6	0.6	0.6	0.6, 0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8, 0.8	0.8, 0.8	0.8	0.8	0.8, 0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	30	88	44	44	88	44	28
Source Factor Sum	41	105	67	78	105	70	43
PART B: TRANSPORT FACTORS EROSION	1.6	1.6	1.6	0.34	0.34	2.8	0.42
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	2	6	4	4	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface	6	8	12	8	8	13	10
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.32	0.48	0.35	0.35	0.53	0.43
P Index Value = 2 x Source x Transport	19	66	65	54	73	74	37

Nitrogen based management

Crop Yrs. 2020

0100 110. 2020	
PART A: SCREENING TOOL CMU/Field ID	EH1
Is the CMU in a Special Protection watershed?	No
A significant farm management change as defined by Act 38?	Yes
Soil Test Mehlich 3 P greater than 200 ppm P?	129
Contributing Distance from CMU to receiving water <150 ft.?	No
Is winter manure application planned for this field ?	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	129
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	26
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-
SUPPLEMENTAL P FERTILIZER	0
	-
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0
MANURE P RATE	138
MANURE APPLICATION METHOD <sup>3</sup>	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8
Manure Rating = Manure Rate x Manure Application Metho	66
Source Factor Sum	92
PART B: TRANSPORT FACTORS EROSION	0.36
RUNOFF POTENTIAL	4
SUBSURFACE DRAINAGE	0
CONTRIBUTING DISTANCE	6
Transport Sum = Erosion + Runoff Potential + Subsurface	10
MODIFIED CONNECTIVITY	1.0
Transport Sum x Modified Connectivity / 24	0.43
P Index Value = 2 x Source x Transport	79
Low: 59 or less	

Appendix 5 - P Index					Go to NMP Index	
Crop Yrs. 2021	Pennsylvania P Index Version 2 Go to App 4 Input					
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	FOOL	CMU/Field ID	DK1
Is the CMU in a Special Protection watershed?	Is the CMU in a Special Protection watershed?				No	
A significant farm management change as defined by Act 38?	Is there a significant farm management change as defined by Act 38? If the answer is Yes to				Yes	
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions,	40
Contributing Distance from CMU to receiving water <150 ft.?		Is the Contributing Dista	ance from this CMU to receiv	ring water less than 150 ft.?	Part B must be used.	No
Is winter manure application planned for this field ?		Is winter manure applic	ation planned for this field?			No
Run P Index Part B voluntarily? (No to all Part A questions.)	1	Run P Index Part B volu	untarily? (Answers are Not	to all Part A questions.)		No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)			Mehlich 3 Soil Test P (pp	om P)		40
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)						8
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)					Fertilizer P (lb P2O5/acre)	0, 0, 0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-, -, -
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	0, 0, 0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	-, -, -
Fertilizer Rating = Fertilizer Rate x Fertilizer Application N	ethod					0
MANURE P RATE					Manure P (lb P2O5/acre)	92, 92, 92
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	0.6, 0.6, 0.6
P SOURCE COEFFICIENT <sup>3</sup> Refer to: Test results for P Source Coefficient OR Book values from P Index Fact Sheet Table 1					Table 1	0.8, 0.8, 0.8
Manure Rating = Manure Rate x Manure Application Method	od x P Source Coeff	icient				132
Source Factor Sum						140
PART B: TRANSPORT FACTORS EROSION	FACTORS EROSION Soil Loss (ton/acre/yr)					1.6
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 <i>Drainage Class is</i> Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly	4
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	0
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	0
Transport Sum = Erosion + Runoff Potential + Subsurface Drainage + Contributing Distance						6
MODIFIED CONNECTIVITY	50 ft. R APPLIES TO	0.85 iparian Buffer D DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	1.0
Transport Sum x Modified Connectivity / 24						0.23
P Index Value = 2 x Source x Transport						65
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	p removal	Very High: 100 or greater No Phosphorus applied		

OR rapidly permeable soil near a stream
 "9" factor does not apply to fields receiving manure with a 35 ft. buffer.
 Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

Crop Yrs. 2021

PART A: SCREENING TOOL CMU/Field ID	DK2	DK3	DK4	DK5	DK6	DK7	DKP1
Is the CMU in a Special Protection watershed?	No	No	No	No	No	No	No
A significant farm management change as defined by Act 38?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Soil Test Mehlich 3 P greater than 200 ppm P?	55	84	115	172	83	129	74
Contributing Distance from CMU to receiving water <150 ft.?	No	No	No	No	No	Yes	Yes
Is winter manure application planned for this field ?	No	No	No	No	No	No	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No	No	No	No	No	No	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	55	84	115	172	83	129	74
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	11	17	23	34	17	26	15
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0, 0, 0	0, 0	0, 0	0	0, 0	0	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-, -, -	-, -	-, -	-	-, -	-	-
SUPPLEMENTAL P FERTILIZER	0, 0, 0	0, 0	0, 0	0	0, 0	0	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-, -, -	-, -	-, -	-	-, -	-	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0	0	0	0	0	0	0
MANURE P RATE	92, 92, 92	92, 92	32, 32	92	92, 92	92	35
MANURE APPLICATION METHOD <sup>3</sup>	0.6, 0.6, 0.6	0.6, 0.6	0.6, 0.6	0.6	0.6, 0.6	0.6	1
P SOURCE COEFFICIENT <sup>3</sup>	0.8, 0.8, 0.8	0.8, 0.8	0.8, 0.8	0.8	0.8, 0.8	0.8	0.8
Manure Rating = Manure Rate x Manure Application Metho	132	88	30	44	88	44	28
Source Factor Sum	143	105	53	78	105	70	43
PART B: TRANSPORT FACTORS EROSION	1.6	1.6	1.6	0.34	0.34	2.8	0.42
RUNOFF POTENTIAL	4	4	4	4	4	4	4
SUBSURFACE DRAINAGE	0	0	0	0	0	0	0
CONTRIBUTING DISTANCE	0	2	6	4	4	6	6
Transport Sum = Erosion + Runoff Potential + Subsurface	6	8	12	8	8	13	10
MODIFIED CONNECTIVITY	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transport Sum x Modified Connectivity / 24	0.23	0.32	0.48	0.35	0.35	0.53	0.43
P Index Value = 2 x Source x Transport	67	66	51	54	73	74	37

Low: 59 or less

Nitrogen based management

Crop Yrs. 2021

0100 110. 2021	
PART A: SCREENING TOOL CMU/Field ID	EH1
Is the CMU in a Special Protection watershed?	No
A significant farm management change as defined by Act 38?	Yes
Soil Test Mehlich 3 P greater than 200 ppm P?	129
Contributing Distance from CMU to receiving water <150 ft.?	No
Is winter manure application planned for this field ?	No
Run P Index Part B voluntarily? (No to all Part A questions.)	No
PART B: SOURCE FACTORS: Mehlich 3 Soil Test P (ppm P)	129
Soil Test Rating = 0.20* Mehlich 3 Soil Test P (ppm P)	26
FERTILIZER P APPLIED REGARDLESS OF MANURE (Starter or other)	0
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	-
SUPPLEMENTAL P FERTILIZER	0
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER <sup>3</sup>	-
Fertilizer Rating = Fertilizer Rate x Fertilizer Application Me	0
MANURE P RATE	138
MANURE APPLICATION METHOD <sup>3</sup>	0.6
P SOURCE COEFFICIENT <sup>3</sup>	0.8
Manure Rating = Manure Rate x Manure Application Metho	66
Source Factor Sum	92
PART B: TRANSPORT FACTORS EROSION	0.36
RUNOFF POTENTIAL	4
SUBSURFACE DRAINAGE	0
CONTRIBUTING DISTANCE	6
Transport Sum = Erosion + Runoff Potential + Subsurface	10
MODIFIED CONNECTIVITY	1.0
Transport Sum x Modified Connectivity / 24	0.43
P Index Value = 2 x Source x Transport	79
Low: 59 or less	

#### Date of Site Evaluation: April 6, 2018

#### Statement Documenting Areas Evaluated During Site Evaluation

List and clearly identify each of the specific areas evaluated.

The following areas were evaluated: cattle barn, former goat barn (note: due to the duck integrator requirements, goats are no longer kept on the operation), pasture access area, pond and stream area in the pasture, proposed location of duck barn and HDPE lined earthen manure storage pond

# Identification of Inadequate Manure Management Practices and Conditions

List of each specific inadequate manure management practice or condition identified.

The area where cattle access the pasture south of the cattle barn lacks vegetation due to heavy cattle traffic. Roof water from the south side of the cattle barn roof flows through this area during storm events. Cattle have free access to a pond and surface water year round while in the pasture. Long term manure storage will be needed for duck manure to avoid winter manure applications. Morality management will be needed for the duck flocks.

#### **BMPs to Address Manure Management Problem Areas**

List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above.

A section of reinforced gravel heavy use area (561) will be installed on the south side of the cattle barn to provide a stable location for cattle to access the barn. Accumulated manure will be removed from this area and applied to cropland prior to installing the heavy use area. Roof gutters and downspouts (558) will be installed on the cattle barn roof to collect roof runoff water and prevent it from washing through the barn access area. The downspouts will be connected to underground outlet (620) pipe to convey roof water to a stable outlet south of the barn. Fence (382) will be installed around the pond and on both sides of the streambank in pasture DKP1 to control cattle access to surface water. A stream crossing (578) will be installed east of the pond to provide a stable location for cattle to cross surface water. A spring development system (574) will be installed at the existing spring in pasture DKP1. Livestock pipeline (516) will convey water collected at the spring development to frost free water troughs (614) in pasture DKP1 to provide an off-stream water source for cattle. An HDPE lined earthen manure storage pond will be constructed east of the proposed duck barn at farmstead 2 to provide long term storage for liquid duck manure. A gravity pipe manure transfer system (634) will be installed to convey duck manure from the duck barn to the proposed HDPE lined earthen manure storage pond. A mortality incinerator (316) will be installed for duck mortality management. Critical area planting (342) will be used to seed areas disturbed by construction activities.

# Appendix 7 Stormwater Control

Date of Site Evaluation: April 6, 2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

The following areas were evaluated: farmsteads, all fields (DK1 through DK7, DKP1, DKP2 and EH1) were evaluated, specifically areas near surface water in fields EH1, DK7, DKP1 and DKP2 were investigated for critical runoff problem areas

#### **Identification of Critical Runoff Problem Areas**

List of each specific critical runoff problem area identified.

Practices will be needed to control stormwater from impacting the proposed duck barn and manure storage. Stormwater from fields DK1 through DK4 is causing gully erosion at the field access lane east of the buildings at Farmstead 1. Stormwater runoff from Kiliti Road washes through the driveway on the western side of Farmstead 1.

#### **BMPs to Address Critical Runoff Problem Areas**

List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above.

Critical area planting (342) will be used to seed areas disturbed by construction activities. Vegetated swales (412) will be constructed upslope of the proposed duck barn and manure storage to capture surface water and convey it away from the structures. Surface water inlets (587) and underground outlet pipes (620) will be installed at the swales to collect stormwater and convey it to the proposed stormwater basin. The swales will outlet into a stormwater basin (638) east of the duck barn and manure storage. Roof runoff water from the duck barn will also be collected by the swales. Rock lined outlets (468) and a level spreader (587) will be installed at swales, underground outlet pipe and basin outlet locations. A diversion (362) will be installed along the southern edge of field DK4 to collect upslope stormwater. Surface water inlet (587) and underground outlet pipe (620) will be installed to convey stormwater from the diversion to a level spreader (587) located in field DK5.

# Appendix 8 Importer/Broker Agreements & NBSs

Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan.

## **Exporter/Importer Agreement** Manure Used For Agricultural Land Application

Developed consistent with the PA Nutrient and Odor Management Act Program

- 1) This agreement is entered into on June 8, 2018, by <u>Kiliti's Family Farm, LLC</u> (the "exporter") who will supply manure, and <u>Andrew Hess</u> (the "importer"), who will receive the manure from the exporter.
- 2) The purpose of this agreement is to set forth the mutual responsibilities and understanding of the parties with respect to the export of manure from the exporter to the importer.
- The exporter is located at (county, twp, and address): <u>Luzerne County, Salem Township</u> 62 Kiliti Road, Berwick, PA 18603
- 4) The <u>exporter</u> will, as the supply of manure allows, provide the following amounts of manure during the seasons outlined below:

#### Tons of N/A manure, per season:

Spring <u>0 tons</u> or Summer <u>0 tons</u> or Fall <u>0 tons</u> or Winter <u>0 tons</u>

#### Gallons of Duck manure, per season:

Spring up to 139,880 gallons or Summer <u>0 gallons</u> or Fall up to 139,880 gallons or Winter <u>0 gallons</u>

Total planned manure exported: (supply of manure may be less than what is planned) Tons of <u>N/A</u> manure: <u>0 tons per year</u> Gallons of <u>Duck</u> manure: <u>up to a total of 139,880 gallons per year</u>

If multi-species are planned, please add additional lines:

- 5) The <u>importer's</u> location and other relevant information as it relates to this manure export, is as follows (maps indicating the location of importing fields must be attached to the supporting Nutrient Balance Sheets if manure is to be land applied at the importing site):
  - a) Phone number: 570-394-2309
  - b) County(s): Luzerne
  - c) Address: 714 Stone Church Road, Berwick, PA 18603
  - d) Township(s): Salem
  - d) **Owner(s) of the property receiving manure**: <u>Andrew Hess, Albert Weaver, Jeff Hess, Brandon Schultz,</u> <u>Celis Luciw</u>
  - e) Total cropland acres managed by the importer: 75 acres
  - f) Number and type of animals raised by the importer: <u>15 head of beef cattle</u>
  - g) Number of acres available for this imported manure: 53.8 acres
  - h) Other manures (type, amount) imported to the site AND/OR utilized on the site: (Note- this would include manure that is generated on the site by the importers animals, etc.) <u>433 tons of beef manure</u>
    - If other manure is generated, imported and/or utilized, is it applied to the same acres as indicated in item "g" above (relating to "acres available"): <u>No</u>

# • If other manure is generated, imported and/or utilized, is it applied during the same season as the imported manure: <u>No</u>

- 6) The exporter will use a Manure Export Sheet to record all manure exported to the importer. These Manure Export Sheets are available from the county conservation district or the State Conservation Commission. Computer generated forms other than the manure export sheet may be used if they contain the same information as, and are reasonably similar in format to, the forms available from the State Conservation Commission or the conservation district.
- 7) Records relating to the export of manure shall be prepared by the exporter in accordance with the following requirements of the Nutrient and Odor Management Act regulations:
  - a) A Manure Export Sheet shall be used to document all manure exports for their records
    - A copy of the Manure Export Sheet shall be provided to the importer
    - A copy of the Manure Export Sheet shall be retained on site by the exporter
  - b) When the exporter (or someone working for, or contracted by the exporter) applies the exported manure, the exporter shall maintain the following exported manure records:
    - Application dates, areas, rates and methods
  - c) Records shall be maintained by the exporter for a minimum of 3 years
  - d) A manure export informational packet (as supplied by the conservation district or State Conservation Commission) shall be provided to the importer by the time of the manure export. This information only needs to be provided once to the importer.
    - The manure export informational packet must include the following:
      - i. Exported Manure Informational Packet Guidance Sheet
      - ii. Nutrient Management Planning an Overview (Agronomy Facts 60)
      - iii. Manure Management for Environmental Protection
      - iv. Land Application of Manure- A supplement to the Manure Management Manual Plan Guidance
      - v. Manure Export Sheet
      - vi. Manure Transfer Summary Sheets
    - vii. Manure Field Stacking Requirements Fact Sheet
- 8) Where applicable, the importer shall properly store manure received from the exporter in accordance with the provisions of the Manure Management Manual and the Pa Technical Guide and shall not cause contamination of surface or ground water. This shall include manure stacked in application fields which may not be retained in fields for > 120 days unless covered or otherwise protected.
- 9) Manure received by the importer shall be applied to the land at the rate(s) and method(s) provided in the attached "Nutrient Balance Sheet(s)", or in accordance with a Nutrient Management Plan approved for the importing operation. If the importer wishes to change the lands used for imported manure, the nutrient balance sheet must be revised to reflect the changes and be submitted to the conservation district or State Conservation Commission (and DEP if the exporter is a CAFO) prior to implementing the changes.
- 10) The importer shall comply with applicable manure application setbacks for the imported manure, as outlined in the Nutrient Balance Sheet map(s).
- 11) For any lands not owned by the importer where the manure will be applied (i.e., rented lands), the importer hereby confirms that the importer has the authority to apply manure on those lands.

12) This agreement shall remain in full effect unless terminated by either party upon thirty days prior written notice to the other party. If this agreement is terminated, the exporter shall notify the county conservation district office that approved their nutrient management plan, of the termination.

Exporter Signature, Name and Date		Importer Signature, Name and Date	
Darel & Philiti	(signature)	Challe	(signature)
DAvid L KiLiti	(name)	Andrew Hess	(name)
6/8/2018	(date)	6-5-18	(date)

October 2017 Version

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# **Nutrient Balance Sheet**

Prepared for

Andy Hess 714 Stone Church Road Berwick, PA 18603 570-394-2309

### Prepared by

Todd C. Rush #988-NMC 120 Lake Street, Ephrata PA 17522 717-721-6795



Nutrient Management Specialist or Broker 2 Signature

Date of Development

August 3, 2018

**Exporter Information** Kiliti's Famly Farm, LLC 62 Kiliti Road Berwick, PA 18603

**County of Origin** 

Luzerne County

### **Nutrient Balance Worksheet Appendices**

The following appendices need to accompany the Nutrient Balance Worksheets if applicable:

• Maps of fields where manure is to applied including required manure application setbacks.

• Completed P-Index spreadsheet and Winter Matrix for each crop management unit (if using Manure Plan Basis: Option 3)

# Nutrient Balance Sheet Summary

Importing Farm:	Andy Hess
Whole Farm Note:	None

							<u> </u>		St Fei	arter/Oth rtilizer (Ik	arter/Other tilizer (Ib/A)		Supplemental Fertilizer (Ib/A)			Nutrient Balance (Ib/A) <sup>2</sup>		
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O	
Corn Grain Spring	AH1 through AH18	53.8	Corn for Grain	Duck Manure	Spring	Spring: Spring or summer utilization-Incorporation within 5–7 days	2400	gal/A	0	0	0	96	0	0	0	1	4	
Corn Grain Fall	AH1 through AH18	53.8	Corn for Grain	Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	2400	gal/A	0	0	0	108	0	0	0	1	4	
Grass Hay Spring	AH1 through AH18	53.8	Established Mixed Grasses	Duck Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	2600	gal/A	0	0	0	167	0	158	0	0	0	
Grass Hay Fall	AH1 through AH18	53.8	Established Mixed Grasses	Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	2600	gal/A	0	0	0	167	0	158	0	0	0	
Sudangrass Spring	AH1 through AH18	53.8	Sudangrass	Duck Manure	Spring	Spring: Spring or summer utilization-Incorporation within 5–7 days	2600	gal/A	0	0	0	74	0	158	0	0	0	
Sudangrass Fall	AH1 through AH18	53.8	Sudangrass	Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	2600	gal/A	0	0	0	87	0	158	0	0	0	

### **NBS Summary Notes**

Importing Farm: Andy Hess

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
Corn Grain Spring	Corn for Grain	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year.
Corn Grain Fall	Corn for Grain	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall duck manure application.
Grass Hay Spring	Established Mixed Grasses	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year.
Grass Hay Fall	Established Mixed Grasses	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall duck manure application.
Sudangrass Spring	Sudangrass	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year.
Sudangrass Fall	Sudangrass	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall duck manure application.

# Manure Group Information

Appendix 3 Manure Group Information	Duck Manure
Manure Report Date (note if averaging several reports)	Book Value
Laboratory Name	PSU Agronomy Guide
Manure Type	Poultry
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal
Total Nitrogen (N) (lbs/ton or 1000 gal)	33.00
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	0.00
Total Organic N (lbs/ton or 1000 gal)	33.00
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	23.00
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	16.00
Percent Solids	5.00
PSC Value (analytical or book value)	0.80

Nutrient Balance Sheets	Co	Corn Grain Spring			Corn Grain Fall			Grass Hay Spring		Grass Hay Fall			Su	dangrass Sp	ring	Sudangrass Fall			
Crop Group Indentification		11 through AL	110		11 through AL	110	A L	1 through Al	110		1 through AL	110	Δ1	11 through Al	110	AH1 through AH18			
Acres		53.8	110	7.1	53.8	110		53.8	110	53.8		53.8			53.8				
NBS Option	Opt	tion 1 P Rem	oval	Opt	ion 1 P Rem	oval	Opt	ion 1 P Rem	oval	Option 1 P Removal			Option 1 P Removal			Option 1 P Removal			
P Banking		No			No		No		No		No			No					
Moblich 3 Soil Tost P	ppm P			ppm P			ppm P		ppm P			ppm P			ppm P				
For Option 2 enter maximum Soil Test												ppm							
For Option 3 enter soil test for PI																			
P Index Part A Evaluation								1											
Part A Result	P Index not Required			P In	dex not Requ	uired	P In	dex not Req	uired	P In	dex not Requ	ired	P In	dex not Requ	uired	P In	dex not Requ	uired	
Сгор	Corn for Grain			(	Corn for Grain	n	Establi	shed Mixed (	Grasses	Establis	shed Mixed O	Brasses		Sudangrass			Sudangrass		
Planned Yield		140	bu/A		140	bu/A		4	ton/A		4	ton/A		4	ton/A		4	ton/A	
	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	N	P2O5	K2O	
Crop Removal Recommendations (LB/A)	140	56	42	140	56	42	200	60	200	200	60	200	120	60	200	120	60	200	
Soil Test Recommendation (lb/A)																			
Other Nutrients Applied (Ib/A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(Nutrients applied regardless of manure)	-	, , , , , , , , , , , , , , , , , , ,			Ŭ	, ,	÷		Ů	, , , , , , , , , , , , , , , , , , ,	Ū	-		<u> </u>	Ĵ		Ŭ	Ů	
P Index Application Method		1												1			1		
Double Crop CarryOver N (Ib/A)	0	Fraguest	Cummer	0	Fraguesti	Cummer	0	Fraguest		0	Frequently	Cummer	0	Frequently	. Cummer en	0	Fraguest	Cummers	
Residual Manure N (Ib/A)	20	Cr	op	20	Cr	op	20	Ci	rop	20	Cr	op	20	Ci	rop	20	Cr	op	
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	0 No Previous Year Legume		0	No Previ Leg	ious Year ume	0 No Previous Year Legume		0	No Previous Year Legume		0	0 No Previou Legun			
Net Nutrients Required (Ib/A)	120	56	42	120	120 56 42		180	60	200	180	60	200	100	60	200	100	60	200	
Manure Group	Duck Manur	e		Duck Manur	e		Duck Manur	e		Duck Manur	e		Duck Manur	e		Duck Manur	e	1	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/1000 gal			lb/1000 gal			
Manure Nutrient Content	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	
(lbs/ton or 1000 gal)	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00	
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spri Incorpor	ing or summe ration within 5	er utilization- 5–7 days	Early Fall: Summer utilization with no cover crop: All methods of incorporation			Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: S cover o i	ummer utiliza crop: All meth incorporation	ation with no nods of	Spring: Spring or summ Incorporation within		J or summer utilization- ion within 5–7 days		ummer utiliza crop: All meth incorporation	ation with no hods of		
Availability Factors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	
(Total N or NH4-N & Organic N)	0.30			0.15			0.15			0.15			0.30			0.15			
P Index Application Method																			
N Balanced Manure Rate (ton; gal/A)		12,121	gal/A		24,242	gal/A	36,364 gal/A				36,364	gal/A		10,101	gal/A		20,202	gal/A	
P Removal Balance Manure Rate		2,435	gal/A		2,435	gal/A		2,609	gal/A		2,609	gal/A		2,609	gal/A		2,609	gal/A	
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	56.0	Crop P Re	emoval (lb/A)	56.0	Crop P Re	moval (lb/A)	60.0	Crop P Re	moval (lb/A)	60.0	Crop P Re	emoval (lb/A)	60.0	Crop P Re	emoval (lb/A)	60.0	
P Index Value																			
Planned Manure Rate (ton or gal/A)		2,400	gal/A		2,400	gal/A		2,600	gal/A		2,600	gal/A		2,600	gal/A		2,600	gal/A	
Nutrients Applied at Planned Manure Rate (Ib/A)	24	55	38	12	55	38	13	60	42	13	60	42	26	60	42	13	60	42	
Nutrient Balance after Manure	96	1	4	108	1	4	167	0	158	167	0	158	74	0	158	87	0	158	
Supplemental Fertilizer (Ib/A)	96	0	0	108	0	0	167	0	158	167	0	158	74	0	158	87	0	158	
P Index Application Method					1													1	
Final Nutrient Balance (lb/A)	0	1	4	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	
Multiple Application					1	1					0	-		1 -			1 -	1	
oil test or Crop Removal SHOULD NOT be used to determine additional fertilizer needs adv			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs		Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs			Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs					

# Appendix 1 Operation Maps

Maps (or aerial photographs) required in Nutrient Balance Sheets must identify: road and road names adjacent to and within the operation; field identification, boundaries and acreage; manure application setback areas and vegetated buffers and associated landscape features (streams and other water bodies, sinkholes, and active water wells or springs); and location of in-field manure stacking areas (including each site in stacking area rotation).





# **Exporter/Importer Agreement** Manure Used For Agricultural Land Application

Developed consistent with the PA Nutrient and Odor Management Act Program

- 1) This agreement is entered into on July 30, 2018, by Kiliti's Family Farm, LLC (the "exporter") who will supply manure, and Lupini Farms (the "importer"), who will receive the manure from the exporter.
- 2) The purpose of this agreement is to set forth the mutual responsibilities and understanding of the parties with respect to the export of manure from the exporter to the importer.
- The exporter is located at (county, twp, and address): <u>Luzerne County, Salem Township</u>
   62 Kiliti Road, Berwick, PA 18603
- 4) The <u>exporter</u> will, as the supply of manure allows, provide the following amounts of manure during the seasons outlined below:

### Tons of N/A manure, per season:

Spring <u>0 tons</u> or Summer <u>0 tons</u> or Fall <u>0 tons</u> or Winter <u>0 tons</u>

### Gallons of Duck manure, per season:

Spring <u>up to 3,288,800 gallons</u> or Summer <u>0 gallons</u> or Fall <u>up to 3,288,800 gallons</u> or Winter <u>0</u> gallons

#### **Total planned manure exported: (supply of manure may be less than what is planned)** Tons of N/A manure: 0 tons per year

Gallons of Duck manure: up to a total of 3,288,800 gallons per year

If multi-species are planned, please add additional lines:

- 5) The <u>importer's</u> location and other relevant information as it relates to this manure export, is as follows (maps indicating the location of importing fields must be attached to the supporting Nutrient Balance Sheets if manure is to be land applied at the importing site):
  - a) Phone number: 570-204-3825
  - b) County(s): Columbia & Luzerne
  - c) Address: 609 Mifflin Nescopeck Highway, Nescopeck, PA 18635
  - d) Township(s): Salem, Nescopeck, Mifflin & North Center
  - d) Owner(s) of the property receiving manure: Christopher & Shawnna Lupini
  - e) Total cropland acres managed by the importer: 1,700 acres
  - f) Number and type of animals raised by the importer: None
  - g) Number of acres available for this imported manure: <u>411.1 acres</u>
  - h) Other manures (type, amount) imported to the site AND/OR utilized on the site: (Note- this would include manure that is generated on the site by the importers animals, etc.) <u>None</u>
    - If other manure is generated, imported and/or utilized, is it applied to the same acres as indicated in item "g" above (relating to "acres available"): <u>N/A</u>

# • If other manure is generated, imported and/or utilized, is it applied during the same season as the imported manure: <u>N/A</u>

- 6) The exporter will use a Manure Export Sheet to record all manure exported to the importer. These Manure Export Sheets are available from the county conservation district or the State Conservation Commission. Computer generated forms other than the manure export sheet may be used if they contain the same information as, and are reasonably similar in format to, the forms available from the State Conservation Commission or the conservation district.
- 7) Records relating to the export of manure shall be prepared by the exporter in accordance with the following requirements of the Nutrient and Odor Management Act regulations:
  - a) A Manure Export Sheet shall be used to document all manure exports for their records
    - A copy of the Manure Export Sheet shall be provided to the importer
    - A copy of the Manure Export Sheet shall be retained on site by the exporter
  - b) When the exporter (or someone working for, or contracted by the exporter) applies the exported manure, the exporter shall maintain the following exported manure records:
    - Application dates, areas, rates and methods
  - c) Records shall be maintained by the exporter for a minimum of 3 years
  - d) A manure export informational packet (as supplied by the conservation district or State Conservation Commission) shall be provided to the importer by the time of the manure export. This information only needs to be provided once to the importer.
    - The manure export informational packet must include the following:
      - i. Exported Manure Informational Packet Guidance Sheet
      - ii. Nutrient Management Planning an Overview (Agronomy Facts 60)
      - iii. Manure Management for Environmental Protection
      - iv. Land Application of Manure- A supplement to the Manure Management Manual Plan Guidance
      - v. Manure Export Sheet
      - vi. Manure Transfer Summary Sheets
    - vii. Manure Field Stacking Requirements Fact Sheet
- 8) Where applicable, the importer shall properly store manure received from the exporter in accordance with the provisions of the Manure Management Manual and the Pa Technical Guide and shall not cause contamination of surface or ground water. This shall include manure stacked in application fields which may not be retained in fields for > 120 days unless covered or otherwise protected.
- 9) Manure received by the importer shall be applied to the land at the rate(s) and method(s) provided in the attached "Nutrient Balance Sheet(s)", or in accordance with a Nutrient Management Plan approved for the importing operation. If the importer wishes to change the lands used for imported manure, the nutrient balance sheet must be revised to reflect the changes and be submitted to the conservation district or State Conservation Commission (and DEP if the exporter is a CAFO) prior to implementing the changes.
- 10) The importer shall comply with applicable manure application setbacks for the imported manure, as outlined in the Nutrient Balance Sheet map(s).
- 11) For any lands not owned by the importer where the manure will be applied (i.e., rented lands), the importer hereby confirms that the importer has the authority to apply manure on those lands.

12) This agreement shall remain in full effect unless terminated by either party upon thirty days prior written notice to the other party. If this agreement is terminated, the exporter shall notify the county conservation district office that approved their nutrient management plan, of the termination.

Exporter Signature, Name and Date			
Paul Kiliti	(signature)	Chip	(signature)
DAVID Kilit.	(name)	Chris Lopini	(name)
8-6-2018	(date)	7-30-18	(date)

October 2017 Version

# **Nutrient Balance Sheet**

### Prepared for

Lupini Farms 609 Mifflin Nescopeck Highway Nescopeck, PA 18635 570-204-3825 - Chris Lupini

### Prepared by

Todd C. Rush #988-NMC 120 Lake Street, Ephrata PA 17522 717-721-6795



Nutrient Management Specialist or Broker 2 Signature

Date of Development

August 6, 2018

Exporter Information Kiliti's Famly Farm, LLC 62 Kiliti Road Berwick, PA 18603

**County of Origin** 

Luzerne County

### **Nutrient Balance Worksheet Appendices**

The following appendices need to accompany the Nutrient Balance Worksheets if applicable:

• Maps of fields where manure is to applied including required manure application setbacks.

• Completed P-Index spreadsheet and Winter Matrix for each crop management unit (if using Manure Plan Basis: Option 3)

# Nutrient Balance Sheet Summary

Importing Farm:	Lupini Farms
Whole Farm Note:	None

									St Fei	arter/Oth rtilizer (Ib	ner b/A)	Su Fer	pplemei tilizer (ll	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned I Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O
Corn Grain Spring	A,B,C,D,E,F,G12, H12,I,J,P12,P34, BH1,BH2,BH3,B H4,BH5,BH6,BH7- 8,BH9,SUT1,SUT 2,SUT3A,SUT3B	411.1	Corn for Grain (No- till)	Duck Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	4	10	2	136	0	0	0	-114	-70
Corn Grain Fall	A,B,C,D,E,F,G12, H12,I,J,P12,P34, BH1,BH2,BH3,B H4,BH5,BH6,BH7- 8,BH9,SUT1,SUT 2,SUT3A,SUT3B	411.1	Corn for Grain (No- till)	Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	4	10	2	136	0	0	0	-114	-70
Soybeans Spring	A,B,C,D,E,F,G12, H12,I,J,P12,P34, BH1,BH2,BH3,B H4,BH5,BH6,BH7- 8,BH9,SUT1,SUT 2,SUT3A,SUT3B	411.1	Soybeans with Manure	Duck Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	0	0	0	0	-114	-30
Soybeans Fall	A,B,C,D,E,F,G12, H12,I,J,P12,P34, BH1,BH2,BH3,B H4,BH5,BH6,BH7- 8,BH9,SUT1,SUT 2,SUT3A,SUT3B	411.1	Soybeans with Manure	Duck Manure	Early Fall	Early Fall: Summer utilization with no cover crop: All methods of incorporation	8000	gal/A	0	0	0	0	0	0	0	-114	-30
Wheat Spring	A,B,C,D,E,F,G12, H12,I,J,P12,P34, BH1,BH2,BH3,B H4,BH5,BH6,BH7- 8,BH9,SUT1,SUT 2,SUT3A,SUT3B	411.1	Wheat	Duck Manure	Spring	Spring: Spring or summer utilization-Incorporation after 7 days or none	8000	gal/A	0	0	0	38	0	25	0	-99	0

									St Fei	arter/Otl tilizer (II	ner b/A)	Su Fer	ppleme tilizer (l	ntal b/A)	Nutr	ient Bala (Ib/A) <sup>2</sup>	ance
Crop Group	Fields	Acres	Crop	Manure Group	Application Season	Application Management	Planned M Rate	Manure e <sup>1</sup>	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K₂O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
Wheat Fall	A,B,C,D,E,F,G12, H12,I,J,P12,P34, BH1,BH2,BH3,B H4,BH5,BH6,BH7- 8,BH9,SUT1,SUT 2,SUT3A,SUT3B	411.1	Wheat	Duck Manure	Early Fall	Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none	8000	gal/A	0	0	0	38	0	25	0	-99	0

# **NBS Summary Notes**

Importing Farm: Lupini Farms

CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
Corn Grain Spring	Corn for Grain (No-till)	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year.
Corn Grain Fall	Corn for Grain (No-till)	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall duck manure application.
Soybeans Spring	Soybeans with Manure	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year.

					20
CMU/Field ID	Crop	Manure Group	Planned Rate Notes	Nutrient Balance Notes	Notes
Soybeans Fall	Soybeans with Manure	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall duck manure application.
Wheat Spring	Wheat	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year.
Wheat Fall	Wheat	Duck Manure	Planned rate can be applied annually	Nutrient Balances for P2O5 and K2O are based on Crop Removal and SHOULD NOT be used to determine additional fertilizer needs	Do not apply imported duck manure within 100 feet of water wells or 150 feet of surface water. Imported duck manure may only be applied at the planned rate per acre once per crop year. Do not apply other manures to the same fields as imported duck manure in the same crop year. Fields must have 25% cover from a growing crop, crop residue or cover crop at the time of fall duck manure application.

# Manure Group Information

Appendix 3 Manure Group Information	Duck Manure
Manure Report Date (note if averaging several reports)	Book Value
Laboratory Name	PSU Agronomy Guide
Manure Type	Poultry
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal
Total Nitrogen (N) (lbs/ton or 1000 gal)	33.00
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	0.00
Total Organic N (lbs/ton or 1000 gal)	33.00
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	23.00
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	16.00
Percent Solids	5.00
PSC Value (analytical or book value)	0.80

Nutrient Balance Sheets	Corn Grain Spring		c	Corn Grain Fa	all	S	oybeans Spr	ing	Soybeans Fall		Wheat Spring		Wheat Fall					
Fields	A.B.C.D.E.F.C	B,C,D,E,F,G12,H12,I,J,P12,P34,BH1,BHA,B,C,D,E,F,G12,H12,I,J,P12,P34,BH1,BH		A.B.C.D.E.F.C	G12.H12.I.J.P1	12.P34.BH1.BH	A,B,C,D,E,F,G12,H12,I,J,P12,P34,BH1,B		HA.B.C.D.E.F.G12.H12.LJ.P12.P34.BH1.B		A.B.C.D.E.F.G12.H12.L.J.P12.P34.BH1.BH							
Acres		411.1		411.1			411.1		411.1		411 1		411 1					
NBS Option	Option 2 Nitrogen Requirement Option 2 Nitro		Nitrogen Red	quirement	Option 2	Nitrogen Re	quirement	Option 2	Nitrogen Red	quirement	Option 2 Nitrogen Requirement		Option 2 Nitrogen Requirement					
P Banking																		
Mehlich 3 Soil Test P	ppm P			ppm P			ppm P			ppm P			ppm P			ppm P		
For Option 2 enter maximum Soil Test For Option 3 enter soil test for PI	178			178			178			178			178			178		
P Index Part A Evaluation																		
Part A Result	P In	dex not Requ	uired	P Index not Required		P Index not Required		P Index not Required		P Index not Required		P Index not Required						
Сгор	Corn	for Grain (N	o-till)	Corn for Grain (No-till)		Soyt	Soybeans with Manure		Soybeans with Manure		Wheat		Wheat					
Planned Yield		200	bu/A	200 bu/A 70 bu/A		70 bu/A		85 bu/A		85 bu/A								
	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K2O	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
Crop Removal Recommendations (LB/A)	200	80	60	200	80	60	224	70	98	224	70	98	85	85	153	85	85	153
Soil Test Recommendation (Ib/A)																		
Other Nutrients Applied (lb/A) (Nutrients applied regardless of manure)	4	10	2	4	10	2	0	0	0	0	0	0	0	0	0	0	0	0
P Index Application Method														•				
Double Crop CarryOver N (lb/A)	0			0			0			0			0			0		
Manure History Description Residual Manure N (Ib/A)	20	Frequently Cr	- Summer op	20	Frequently Ci	/ - Summer rop	20	Frequently C	y - Summer rop	20	Frequently Ci	r - Summer op	7	Frequent Ci	ly - Winter rop	7	Frequentl Cr	y - Winter op
Legume History Description Residual Legume N (Ib/A)	0	No Previ Leg	ous Year ume	0	No Previ Leg	ious Year jume	0	No Prev Leç	ious Year jume	0	No Previ Leg	ous Year ume	0	Soybean	s, 70 bu/A	0	Soybeans	s, 70 bu/A
Net Nutrients Required (Ib/A)	176	70	58	176	70	58	204	70	98	204	70	98	78	85	153	78	85	153
Manure Group	Duck Manur	е		Duck Manur	е		Duck Manur	е		Duck Manur	e		Duck Manu	re		Duck Manur	e	
Units	lb/1000 gal			lb/1000 gal			lb/1000 gal lb/1000 gal		lb/1000 gal		lb/1000 gal							
Manure Nutrient Content	N	P205	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20	N	P2O5	K20
(lbs/ton or 1000 gal)	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00	33.00	23.00	16.00
Application Season: Management (Incorporation, cover crops, etc.)	Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: Summer utilization with no cover crop: All methods of incorporation		Spring: Spri Incorporat	Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: Summer utilization with no cover crop: All methods of incorporation		Spring: Spring or summer utilization- Incorporation after 7 days or none		Early Fall: Early spring utilization incl. winter crop in double crop system: Incorporated after 7 days or none						
Availability Eactors	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N	Total N	NH4-N	Org. N
(Total N or NH4-N & Organic N)	0.15			0.15			0.15			0.15			0.15			0.15		
P Index Application Method																		
N Balanced Manure Rate (ton; gal/A)		35,556	gal/A		35,556	gal/A		41,212	gal/A		41,212	gal/A		15,758	gal/A		15,758	gal/A
P Removal Balance Manure Rate		3,043	gal/A		3,043	gal/A		3,043	gal/A		3,043	gal/A		3,696	gal/A		3,696	gal/A
(ton or gal/A; If required by P Index)	Crop P Re	emoval (lb/A)	70.0	Crop P Re	emoval (lb/A)	70.0	Crop P Re	emoval (lb/A)	70.0	Crop P Re	moval (lb/A)	70.0	Crop P Re	emoval (lb/A)	85.0	Crop P Re	moval (lb/A)	85.0
P Index Value																		
Planned Manure Rate (ton or gal/A)		8,000	gal/A		8,000	gal/A		8,000	gal/A		8,000	gal/A		8,000	gal/A		8,000	gal/A
Nutrients Applied at Planned Manure Rate (Ib/A)	40	184	128	40	184	128	40	184	128	40	184	128	40	184	128	40	184	128
Nutrient Balance after Manure	136	-114	-70	136	-114	-70	0	-114	-30	0	-114	-30	38	-99	25	38	-99	25
Supplemental Fertilizer (Ib/A)	136	0	0	136	0	0	0	0	0	0	0	0	38	0	25	38	0	25
P Index Application Method																		
Final Nutrient Balance (Ib/A)	0	-114	-70	0	-114	-70	0	-114	-30	0	-114	-30	0	-99	0	0	-99	0
Multiple Application	-			-			-			-			-			-		
Soil test or Crop Removal	Nutrient Bala are based or SHOULD NO additional fe	ances for P20 n Crop Remo OT be used to rtilizer needs	D5 and K2O oval and o determine	Nutrient Bala are based o SHOULD No additional fe	ances for P20 n Crop Remo OT be used t rtilizer needs	O5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 n Crop Rem OT be used t rtilizer needs	O5 and K2O oval and to determine	Nutrient Bala are based of SHOULD No additional fe	ances for P2 n Crop Remo DT be used t rtilizer needs	D5 and K2O oval and o determine	Nutrient Bal are based o SHOULD N additional fe	ances for P2 on Crop Remo OT be used t ertilizer needs	O5 and K2O oval and o determine	Nutrient Bala are based of SHOULD NO additional fe	ances for P20 n Crop Remo DT be used to rtilizer needs	D5 and K2O oval and o determine

# Appendix 1 Operation Maps

Maps (or aerial photographs) required in Nutrient Balance Sheets must identify: road and road names adjacent to and within the operation; field identification, boundaries and acreage; manure application setback areas and vegetated buffers and associated landscape features (streams and other water bodies, sinkholes, and active water wells or springs); and location of in-field manure stacking areas (including each site in stacking area rotation).

# Lupini Farms NBS Map Fields A - J, P



# Lupini Farms NBS Map Fields BH1 - BH9



\*\*Field verification of application setbacks and buffers is required prior to land application of manure.\*\*

# Lupini Farms NBS Map Fields SUT1 - SUT3



# Appendix 9 Operation Maps

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Topographic Map and Soils Map** must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary.

# Kiliti's Family Farm, LLC Topographic Map







# Luzerne County, Pennsylvania Soils Legend

- ASF ARNOT-ROCK OUTCROP COMPLEX, STEEP
- Ag ALLUVIAL LAND
- AIB ALVIRA SILT LOAM, 3 TO 8 PERCENT SLOPES
- AnB ALVIRA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES
- ArB ARNOT-ROCK OUTCROP COMPLEX, 0 TO 8 PERCENT SLOPES
- ArD ARNOT-ROCK OUTCROP COMPLEX, 8 TO 25 PERCENT SLOPES
- At ATHERTON SILT LOAM, GRAY SUBSOIL VARIANT
- Bf BASHER SOILS
- BkB BATH CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- BkC BATH CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- BkD BATH CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES
- BnB BATH VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES
- BnD BATH VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES
- BrA BRACEVILLE GRAVELLY LOAM, 0 TO 3 PERCENT SLOPES
- BrB BRACEVILLE GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES
- BrC BRACEVILLE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
- BuB BUCHANAN CHANNERY LOAM, 3 TO 8 PERCENT SLOPES
- BxB BUCHANAN EXTREMELY STONY LOAM, 3 TO 8 SLOPES
- BxD BUCHANAN EXTREMELY STONY LOAM, 8 TO 25 PERCENT SLOPES
- CF CUT AND FILL LAND
- ChA CHENANGO GRAVELLY LOAM, 0 TO 3 PERCENT SLOPES
- ChB CHENANGO GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES
- ChC CHENANGO GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
- CIA CHIPPEWA SILT LOAM, 0 TO 3 PERCENT SLOPES
- CIB CHIPPEWA SILT LOAM, 3 TO 8 PERCENT SLOPES
- CnB CHIPPEWA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES
- DEF DEKALB EXTREMELY STONY SANDY LOAM, STEEP
- DdB DEKALB EXTREMELY STONY SANDY LOAM, 0 TO 8 PERCENT SLOPES
- DdD DEKALB EXTREMELY STONY SANDY LOAM, 8 TO 25 PERCENT SLOPES
- HO HOLLY SILT LOAM
- KdB KEDRON CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- KdC KEDRON CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- KeB KEDRON VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES
- KeC KEDRON VERY STONY SILT LOAM, 8 TO 20 PERCENT SLOPES
- KwB KEDRON CHANNERY SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 8 PERCENT SLOPES
- KxB KEDRON VERY STONY SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 8 PERCENT SLOPES
- LEF LACKAWANNA AND BATH VERY STONY SILT LOAMS, STEEP
- LaB LACKAWANNA CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- LaC LACKAWANNA CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- LaD LACKAWANNA CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES
- LCB LACKAWANNA VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES
- LcD LACKAWANNA VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES
- LkB LECK KILL CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- LECK KILL CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- LkD LECK KILL CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES
- Ln LINDEN SOILS
- MaB MARDIN CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- MaC MARDIN CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- MaD MARDIN CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES
- McB MARDIN VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES
- McD MARDIN VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES
- MeB MECKESVILLE CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES

- MeC MECKESVILLE CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- MeD MECKESVILLE CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES
- MfB MECKESVILLE VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES
- MfD MECKESVILLE VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES
- Mg MINE DUMP
- Mh MINE DUMP, BURNED
- Mm MINE WASH
- MoB MORRIS CHANNERY SILT LOAM, 0 TO 8 PERCENT SLOPES
- MoC MORRIS CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- MsB MORRIS VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES
- MsC MORRIS VERY STONY SILT LOAM, 8 TO 15 PERCENT SLOPES
- Mu MUCK
- OXF OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS STEEP
- OIB OQUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- OIC OOUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 8 TO 15 PERCENT SLOPES
- OID OOUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES
- ODB OOUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS. 3 TO 8 PERCENT SLOPES
- OpD OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS, 8 TO 25 PERCENT SLOPES
- PO PITS AND OUARRIES
- PoB POCONO GRAVELLY SANDY LOAM, 3 TO 8 PERCENT SLOPES
- PoC POCONO GRAVELLY SANDY LOAM, S TO 3 TERCENT SLOPES
- FOC FOCUNO GRAVELLI SANDI LUANI, 8 TO 13 FERCENT SLOFES
- PpB POCONO EXTREMELY STONY SANDY LOAM, 3 TO 8 PERCENT SLOPES
- PpD POCONO EXTREMELY STONY SANDY LOAM, 8 TO 25 PERCENT SLOPES
- Ps POPE SOILS
- RdA REXFORD LOAM, 0 TO 3 PERCENT SLOPES
- RdB REXFORD LOAM, 3 TO 8 PERCENT SLOPES
- ShA SHELMADINE SILT LOAM, 0 TO 5 PERCENT SLOPES
- SkB SHELMADINE VERY STONY SILT LOAM, 0 TO 5 PERCENT SLOPES
- Sm STRIP MINE
- Ub URBAN LAND
- Uf URBAN LAND, RARELY FLOODED
- VoB VOLUSIA CHANNERY SILT LOAM, 0 TO 8 PERCENT SLOPES
- VoC VOLUSIA CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- VrB VOLUSIA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES
- VrC VOLUSIA VERY STONY SILT LOAM, 8 TO 15 PERCENT SLOPES
- W BODIES OF WATER 2 TO 40 ACRES IN SIZE
- Wa WAYLAND SILT LOAM
- WeB WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES
- WeC WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 8 TO 15 PERCENT SLOPES
- WeD WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES
- WIB WELLSBORO CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES
- WIC WELLSBORO CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES
- WID WELLSBORO CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES
- WmB WELLSBORO VERY STONY SILT LOAM. 3 TO 8 PERCENT SLOPES
- WmD WELLSBORO VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES

WtD WURTSBORO EXTREMELY STONY LOAM, 8 TO 25 PERCENT SLOPES

WrB WURTSBORO CHANNERY LOAM, 3 TO 8 PERCENT SLOPES
WrC WURTSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES
WrD WURTSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES

WtB WURTSBORO EXTREMELY STONY LOAM, 3 TO 8 SLOPES

WyD WYOMING GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES

WyF WYOMING GRAVELLY LOAM, 25 TO 60 PERCENT SLOPES

# Appendix 10 Crop Years 2019 Supporting Information & Documentation

Includes if applicable the Rainfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates.

Manure Analysis 5 Year Running Average									
Manure Average for Crop	Liquid Duck Manure								
Years. 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago			
Manure Report Date	Book Value	Book Value							
Laboratory Name	PSU Agronomy Guide	PSU Agronomy Guide							
Manure Type	Poultry	Poultry							
Manure Unit (lbs/ton or 1000 gal)	lb/1000 gal	lb/1000 gal							
Total Nitrogen (N) (lbs/ton or 1000 gal)	33.00	33.00							
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	Complete NH4-N								
Total Organic N (lbs/ton or 1000 gal)		33.00							
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (Ibs/ton or 1000 gal)	23.00	23.00							
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	16.00	16.00							
Percent Solids	5.00	5.00							
PSC Value (Enter analytical or book value)	0.80	0.80							

Manure Average for Crop	Beef Finisher Manure									
Years. 2019	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago				
Manure Report Date	Apr 12 2018	Apr 12 2018								
Laboratory Name	Spectrum Analytic, Inc.	Spectrum Analytic, Inc.								
Manure Type	Other	Other								
Manure Unit (Ibs/ton or 1000 gal)	lb/ton	lb/ton								
Total Nitrogen (N) (Ibs/ton or 1000 gal)	12.80	12.80								
Ammonium N (NH₄-N) (lbs/ton or 1000 gal)	1.40	1.40								
Total Organic N (lbs/ton or 1000 gal)	11.40	11.40								
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	8.40	8.40								
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	14.40	14.40								
Percent Solids	27.65	27.65								
PSC Value (Enter analytical or book value)	0.80	0.80								

# Rainfall Worksheet

Crop Years 2019

	County	Luzerne			
Evaporation o					
Pa					
	I				
Manura Group	Liquid Duck	181 614	gallons of rain water added to		
Manure Group	Manure	181,014	this manure group		
Beginning Month (1-12)	1				
Ending Month (1-12)	12	Gallons	of water for this manure group		
Storage Surface Area (Sq. ft.)	24000	181,614	gallons directly on storage		
Runoff Surface Area (Sq. ft.)	0	0	gallons directed to storage		

1

# MANURE STORAGE WINTER CAPACITY PLANNING LEVEL DETERMINATION SPREADSHEET

for Sloped Waste Storage Facilities

This spreadsheet is one option to solve for the required Vertical storage depth for CAFO's going into the winter storage period. Sloped interiors result in a variation of capacity per unit of depth. Using four inputs, the program generates a set of data for the facility volume. Additional data determines the vertical depths and volumes to be subtracted from the total storage depth. The final step is a simple trial and error input to develop the vertical depth required. Outputs include a summary planveiw, x-section, and a Stage-Storage curve.

Note: User to fill in all Blue cells									
Operator or Farm Name:	Kiliti's Fan	nily Farm, LLC	Storage ID or Name:	HDPE Lined Storage Pond					
Completed by:	Todd C. R	ush - TeamAg, Inc.	County:	Luzerne					
<u>Data Inpu</u>	t (Enter dat	a in light blue cells)	Date:	7/6/18					
	Storage	Pond Dimensions being							
		Evaluated							
Width of Stora	<b>ge</b> "W"	100 Feet	(Measured at inside top of slope)						
Length of Store	age "L"	240 Feet	(Measured at inside top of slope)						
Depth of Stora	<b>ge</b> "D"	12 Feet	(Measured from top of embankment	to pumpout depth)					
Interior Side S	оре	2 :1	(Commonly 2.5, but can be 2.0 or 3.0)						
Freeboard 25yr or 100 yr Net Rainfall ov (From Supplem Assume evap.) NO	24 hr rainfall Yer pit Dec Net hent 7 Jan Net Feb Net TE: The Dec Net v	1Feet7.09Inches2.01inches1.47inches1.59inchesalue will be prorated 17/3	(See Guidelines: Either 1' or 2' for all (See Table 5 and use value or highest <b>Paved Lot runoff</b> Dec Net (If paved area drains into Jan Net storage) Feb Net 31 to reflect partial value for Dec.)	sites) in range or Go to NOAA 14) 0 inches 0 inches 0 inches					
Paved Drainag storage Manure, wash excluding any areas over 76 o	e Area into water, bedding outside drainage days	0 Square Fee 296,182 Gallons	t (Enter Zero if none) (This is derived from data in Appendi production and multipling by 76. ) (Dec 15 thru Feb 28 or 76 Days)	x 3 by getting daily					

#### Note: User to use Trial and Error in Olive Green Cell to find minimum Depth





Kiliti's Family Farm, LLC

HDPE Lined Storage Pond



### This chart shows capacity at any depth starting from bottom

**Disclaimer:** This program assumes constant interior slopes and a flat bottom. No credit is given for sloped bottoms or ramp volumes. Therefore the use of a Stage Storage Curve generated from "As-built" data is recommended, if available from your Engineering Consultant.

# **Emergency Response Plan**

If an emergency spill or leak should occur you need to take the following actions:

#### 1) Ensure that you and other people are safe. If the spill or leak involves a public road:

- a. Contact the police for traffic control: Salem Township Police 911
- b. Use flares, safety cones, etc. to warn approaching motorists

#### 2) Stop the leak or spill:

a. If the leak or spill occurs while emptying the storage:

i. Stop pumps, close valves and / or stop siphoning of manure

ii. Park on top of the flexible piping to pinch it closed

iii. If necessary, direct manure to another storage structure

iv. Plug holes in the impoundment, build dams to capture the leak and either pump the manure back into the storage or spread it on crop fields according to your nutrient management plan

b. If the spill happens while on the road:

i. Pull off to the side of the road

- ii. Plug the leak or otherwise stop the flow of manure from the tank
- iii. Build a berm or dike to keep manure from flowing into streams, ditches, etc.
- iv. Call the police for traffic control: Salem Township Police 911

#### 3) Contain and control the leak or spill:

a. Build a containment dam to capture the manure using soil, gravel, hay bales, etc. Provide an area for the impounded manure to run into and be temporarily stored. Limit the area in contact with manure. Local individuals with excavation and manure hauling equipment are:

- i. Columbia Excavating, LLC 570-759-0813
- ii. *Tri-County Spreading 570-692-0188*

b. Prevent manure from running into streams, ditches, waterways, etc.

c. Use absorbent materials such as straw, hay, sawdust, animal feed or soil to soak up the manure and to limit or stop manure flow.

d. Check for contaminated subsurface tile lines and divert manure flow from inlet structures

#### 4) Notify the proper authorities:

Pennsylvania Department of Environmental Protection Emergency Response – 570-327-3636 Luzerne County Conservation District – 570-674-7991 PA Fish & Boat Commission Northeast Regional Office – 570-477-5717 TeamAg, Inc. Nutrient Management Specialist – 570-764-7003

a. Make a record of the details of the spill and the actions you took to remedy the situation. Take pictures of the extent of the spill as well as your containment and cleanup practices.

b. If a spill enters a sinkhole or otherwise has the potential to enter groundwater, notify adjacent landowners who use private wells for their water supply.

#### 5) Clean up the leak or spill:

a. Clean up procedures may be directed by the authorities listed above.

b. Pick up absorbent materials you used and properly dispose of the material.

c. Restore damaged areas if necessary.



# NON-FINAL FORM

This NMP may be revised prior to a formal action by the Conservation District Board. The final form of the plan will be available at least 7 days prior to Board action. You

Mohth, Day and Year

2010

action by the Conservation will be available. You The final form of the plan will be available **Nutrient Management Plater** may contact the Conservation District to at least 7 days prior to Board action. You Nutrient Management Platermine the current status of the NMP

may contact the Conservation District to determine the current status of the NMP Month, Day and Year

2019

NON-FINAL FORM

Version \_\_\_\_\_ This NMP may be revised prior to a formal

action by the Conservation District Board.

For Crop Year(s) 2020

2021

**Prepared For Operator's Name, Mailing Address, Telephone Number(s)** 

Kiliti's Family Farm, LLC – David L. Kiliti, 22 Kiliti Road, Berwick, PA 18603, 570-441-3936 (David Cell)

**Operation's Location Address (if different than above)** 

62 Kiliti Road, Berwick, PA 18603

#### Site Name (CAFOs)

Kiliti's Family Farm, LLC CAFO

### Prepared By

Nutrient Management Specialist's Name, Address, Telephone Number(s)

Todd C. Rush



This version of the plan will be considered for action by the Conservation District Board at their Movember B, 2018 meeting taber 18, 2018

TeamAg Inc. 120 Lake Street Ephrata, PA 17522 570-764-7003

MONTH, DAY AND YEAR Nutrient Management Specialist's Program Certification Number #988-NMC

### Administratively Complete Date

August 9, 2018

Plan Approval Date

### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)



Version 6.2 - June 2018





# COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

**DATE:** October 26, 2018

- TO: Karl G. Brown, Executive Secretary State Conservation Commission
- **FROM:** Michael J. Walker, NM Regional Coordinator State Conservation Commission
- **SUBJECT:** Nutrient Management Plan Review (1) Luzerne County, Pennsylvania

# Action Requested

Action on a Nutrient Management Plan for the following operation in Luzerne County:

1. Downs Racing, LP. DBA - Mohegan Sun at Pocono Downs, 1280 Highway 315, Wilkes-Barre, PA 1870 (crop year 2019, 2020 and 2021)

### **Background**

I have completed the required review of the subject nutrient management plan listed above. Final corrections to the plan were received at the PDA Region 2 office on October 25, 2018. As of that date, the plan is considered to be in its final form. The operation is located in Luzerne County and considered to be a concentrated animal operation (CAO) under the PA Nutrient and Odor Management Act. This operation is classified as a Concentrated Animal Feeding Operation (CAFO) under DEP regulatory authority and is required to hold an approved Act 38 NMP. The Commission is the proper authority to take action on this plan, because Luzerne Conservation District is not delegated plan review and action responsibilities under the PA Nutrient and Odor Management Act Program.

A brief description of the operation, concluding with the staff recommendation, is attached. Also attached is a copy of the complete nutrient management plan for the operation.

Thank you for considering this plan for Commission action.
#### **Farm Descriptions**

**Downs Racing LP. NMP, Luzerne County** – The Downs Racing animal operation is a harness racing facility with live horse races from April through November. Horses begin arriving the first week of March for training and races begin at the end of March. Harness races are held 4 days per week. The NMP was written at maximum capacity or 512 standard breed horses for the entire 270 day race season.

Horses are stabled on the operation the majority of the time. Only those horses preparing for a race or actually racing are out of the stables. Approximately 120 horses are racing for 5 hours per day, a maximum of 100 horses practice for 7 hours Monday through Saturday and 12 hours on Sunday. Straw is the primary bedding material for the horses All collected manure is transferred to roll-off boxes or placed in the proposed manure storage facility. Approximately 4,500 tons of manure is generated per year by the horses on Downs Racing's operation. All the collected manure at Downs Racing is loaded in roll-off containers and exported by Silvana Trucking, Inc. – Franco Giorgio, President (a certified as a Manure Broker 1) and transported to the mushroom industry.

There are no crops, pastureland, or hayland on this operation or under management control of Downs Racing.

The combined animal equivalent units on Downs Racing operation is 416.61. The animal equivalent units per acre for Downs Racing operation are 416.61, classifying this operation as a concentrated animal operation (CAO) under Act 38 of 2005. This operation is also a CAFO.

Needed BMPs listed to be implemented on the Downs Racing include: an existing storm water detention basin will be expanded, the creation of an additional basin for storm water re-use system, one horse stable, the Lasik Barn and an existing manure storage will be decommissioned, the existing horse showers and drains will be decommissions with new shower facilities will be connected to the public sanitary sewer system and a new roofed 80' by 60' by 25' manure storage will be constructed and creation of 5.27 acres of meadow grasses. All the listed BMPs are planned to be completed by the Summer of 2019.

Based on my review, the NMP developed for Downs Racing, LP. – DBA Mohegan Sun at Pocono Downs operation meets the requirements of the PA Nutrient and Odor Management Act and Regulations, and I therefore recommend Commission approval.

## **Nutrient Management Plan**

#### For Crop Year(s)

2019

2020

2021

Prepared For

**Operator's Name, Mailing Address, Telephone Number(s)** 

DOWNS RACING LP doing business as – Mohegan Sun at Pocono Downs 1280 Highway 315 Wilkes-Barre, PA 18702 Office: 570-831-2166, Cell: 570-507-0156

**Operation's Location Address (if different than above)** 

Site Name (CAFOs)

DOWNS RACING LP

#### **Prepared By** Nutrient Management Specialist's Name, Address, Telephone Number(s)

EVIN FITZPATRICK 3050 YELLOW GOOSE ROAD LANCASTER, PA 17601 717.393.2176

Nutrient Management Specialist's Program Certification Number NMC#2001

#### **Administratively Complete Date**

#### **Plan Approval Date**

#### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)

## **Table of Contents**

- Nutrient Management Plan Summary (Excel)
  - Nutrient Management Plan Summary Notes (Excel)
  - Manure Spreader Calibration Notes (Excel)
  - Additional Nutrient Management Plan Requirements (Word)
- **Operator Management Map (Mapping Program)**
- Appendix 1: Nutrient Management Plan Agreement & Responsibilities (Word)
- Appendix 2: Operation Information (Word)
- Appendix 3: Manure Group Information (Excel)
- Appendix 4: Crop & Manure Management Information (Excel)
- Appendix 5: Phosphorus Index (Excel)
- Appendix 6: Manure Management (Word)
- Appendix 7: Stormwater Control (Word)
- Appendix 8: Importer/Broker Agreements & Nutrient Balance Sheets (Word & Excel)
- Appendix 9: Operation Maps (Mapping Program)

#### Topographic Map

Soils Map

Appendix 10: Supporting Information & Documentation (Excel)

(List below the required documents included in the plan.)

- Manure average (100% export plan)
- Signature Authorization Letters
- ARM Group Proposed BMP maps/Corrective Action Plan

## Nutrient Management Plan Summary

Total acres rep	oorted in N	MP Summ	ary:	0						0	Crop Y	ear(s)	2019,	2020, 2	021
Whole Farm Not	e:	Straw beda If manure ru field. The fe manure car field.	ding manure uns out for any ertilizer require to be determine	100 % export y field, consult ed on any part o ed from the 'Ne	Appendix 4 of the p of the field that does t Nutrients Required	lan for that s not receive d' for that									
Operation Acro Total Acres:	<b>es:</b> 216	_ Tota	al Acres Avai	lable For Nutr	ient Application U	nder Operator's Con	trol: O	wned:	0		R	ented:	0		-
Ani	mal Equiv	alent Units:	416.61	_	Animal Ec	quivalent Units Per	Acre:	416.61							
							Sta Fert	nter/Ot ilizer (	her b/A)	Sup Fert	opleme tilizer (l	ntal b/A)	Nuti	ient Ba (Ib/A) <sup>2</sup>	lance
CMU/Field ID	Acres	Crop	Manure Group	Application Season	Application Management	Planned Manure Rate <sup>1</sup>	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	P <sub>2</sub> O <sub>5</sub>	K₂O	Ν	$P_2O_5$	K₂O
NA	NA												0		

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>&</sup>lt;sup>2</sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

	Crop Years 2019, 2020, 2021
CMU/Field ID	Notes
NA	

<sup>&</sup>lt;sup>1</sup> See rate calibration table (Nutrient Management Plan Summary Notes).

<sup>&</sup>lt;sup> $^{2}$ </sup> Positive numbers = nutrient deficit; Negative numbers = nutrient excess

## Manure Spreader Calibration Notes

1				Crop Years 2019, 2020, 2021
Manure Application Rate	Manure Spreader Used	Spreader Settings	Tractor Used (if applicable)	Tractor Settings (speed, gear, rpm, pto, etc.)
NA	NA	NA	NA	NA

## **Additional Nutrient Management Plan Requirements**

Best Management Practice	NRCS Practice Code <sup>1</sup>	BMP Location	Implementation Season & Year	
Obstruction Removal	500	Stable B & Lasik Barn	Completion date Summer 2019	
Waste Facility Closure	360	West of Lasik Barn	Completion date Summer 2019	
Waste Transfer	634	4 Wash Buildings south of stables, new wash stall building	Completion date Summer 2019	
Roofs and Covers	367	4 Wash Buildings south of stables	Completion date Summer 2019	
Pond	378	Stable B	Completion date Summer 2019	
Irrigation Reservoir	436	Stable B	Completion date Summer 2019	
Pond Sealing or Lining, Flexible Membrane	521A	Stable B	Completion date Summer 2019	
Drainage Water Management	554	Stable B	Completion date Summer 2019	
Stormwater Runoff Control	570	Stable B	Completion date Summer 2019	
Structure for water control	587	Stable B	Completion date Summer 2019	
Subsurface Drain	606	Stable B	Completion date Summer 2019	
Underground Outlet	620	Stable B	Completion date Summer 2019	
Conservation Cover: Erosion Control/Water Quality	327	Surrounding Lasik Barn and south of Stable B	Completion date Summer 2019	
Critical Area Planting	342	Surrounding Lasik Barn and south of Stable B	Completion date Summer 2019	
Riparian herbaceous Cover	390	Surrounding Lasik Barn and south of Stable B	Completion date Summer 2019	
Forage and Biomass Planting	512	Surrounding Lasik Barn and south of Stable B	Completion date Summer 2019	
Sediment Basin	350	Northwest of Stable B	Completion date Summer 2019	
Waste Transfer	634	New wash stall building	Completion date Summer 2019	
Pond Sealing & Lining, Compacted Soil Treatment	520	Stable B	Completion date Summer 2019	

## Manure Management and Stormwater BMP Implementation Summary

Proposed Manure	212	~400 ft east of existing	Completion date	
storage	515	storage	Summer 2019	

1 If applicable, enter USDA-NRCS Practice Code. For other non-technical BMPs, leave blank.

#### **In-Field Manure Stacking Procedures**

Manure must be applied to the field within 120 days of stacking or the stacks must be covered. Stacks must be implemented and maintained according to sound BMPs, addressing concerns such as soil type, soil slope, shape of the pile, setbacks, and rotation of piles.

No in field stacking of manure at this operation

#### **Additional CAFO Requirements**

In-field stacking criteria, winter storage requirements, and other issues identified by DEP's review of the nutrient management plan.

**In-field stacking criteria-** Manure may not be stacked in crop fields on this operation for greater than 14 day without covering the stack with an impermeable cover to keep rainwater from falling on the pile. Manure will be stored in the proposed manure storage facility. Roofed manure storage facility with Concrete pad covered structure concrete sides, 80' X 60' X 25', stacked 10' high with storage volume of 48,000 cu ft, located on map

**Manure Storage Winter Capacity Planning Level-** Manure storage will be cleaned out by December 15<sup>th</sup>, Operation will not be storing manure over the winter. Animals are offsite during the winter months.

#### **Proposed Manure Storage Description**

Type, dimensions, volume, freeboard and location on map.

Manure storage facility with Concrete pad covered structure concrete sides, 80' X 60' X 25', stacked 10' high with storage volume of 48,000 cu ft, located on map. The proposed manure storage facility is sized appropriately for the operation.

#### **Description of Planned Alternative Manure Technology Practices**

Type of practice, volume of manure addressed, and result of practice.

NA

#### **Exported Manure Summary**

Summarize in a short paragraph the arrangements proposed for the manure to be exported from the operation. This information is described in more detail in Appendix 8 of this plan.

Straw bedding comingled with horse manure produced on this operation is exported through a broker (Silvana Trucking, Inc.). Silvana Trucking is committed in taking the full amount of straw manure throughout the year.

#### **Operator Management Map**

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Operator Management Map** is to be included here in the Nutrient Management Plan Summary and must include field identification, acreage and boundaries, manure application setback areas and buffers and associated landscape features (streams and other water bodies, sinkholes and active water wells), location of existing and proposed structural BMPs (including manure storage facilities), location of existing or proposed emergency manure stacking areas and in-field manure stacking areas, and road names adjacent to and within the operation. All features on the map must be clearly identified and include a legend for setback areas and other features. The Topographic Map and Soils Map must be included in Appendix 9.

## NMP SITE MAP - Downs Racing LP dba Mohegan Sun at Pocono Downs



## NMP NRCS PRACTICE CODE MAP - Downs Racing LP dba Mohegan Sun at Pocono Downs



#### Appendix 1

## **Nutrient Management Plan Agreement & Responsibilities**

#### **Plan Implementation Requirements**

#### This nutrient management plan has been developed to meet the requirements of the following programs:

х	Pennsylvania Act 38 of 2005	х	CAO		VAO (check one)	
х	Pennsylvania CAFO (Concentrated Animal Feeding Operation) program					
	Other program:					

Plans developed under these programs are required to be implemented as approved in order to maintain compliance with the specific law or program. Implementation includes adherence to manure and fertilizer application rates, timing, setbacks and conditions; installation of listed BMPs within implementation timeframes; and record keeping obligations of the program.

#### The nutrient management plan has been developed as a: (check one)

	1-Year Plan for Crop Year	(annual updates will be completed)			
х	3-Year Plan for Crop Years	2019	2020	2021	

#### Records required to be maintained include the following:

- 1) Annual crop yields
- Manure and fertilizer application rates, locations and date of application 2)
- 3) Manure production figures for the various manure groups listed in your plan
- 4) Soil test reports (testing required every 3 years per crop management unit)
- Manure test reports (testing required once a year for each manure group) 5)
- 6) Number of animals on pasture, number of days on pasture, and hours per day on pasture
- 7) For operations exporting manure, Manure Export Sheets
- 8) BMP designs and certification for new liquid and semi-solid manure storage facilities

#### The following has been confirmed:



Verification of Ag E&S Plan (no Ag E & S Plan required)

х

Verification of Existing Site Specific Emergency Response Plan

Verification that owners of rented/leased lands have been notified that a nutrient management plan has been developed which calls for manure to be applied to their lands and that they have no objections to the plan requirements.



**Owners Notified** 

No Rented/Leased Lands

#### **Specialist Signature**

I affirm that the information contained in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, based on information provided by the operator; that this plan has been developed in accordance with the criteria established for the program(s) indicated above; and that I have presented the final complete plan to the operator and discussed the content and implementation of this plan with the operator, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

#### **Specialist Signature**

Date

and	
9/20/2018	

#### **Operator Signature**

I understand and agree that I will implement the practices, procedures and record keeping obligations as outlined in this plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. I agree that if I use a commercial hauler or broker for the application or export of manure, that only haulers or brokers that hold a valid certification issued by the Pa Department of Agriculture, under Act 49 of 2004, will be used. I affirm that all information provided in this nutrient management plan is true, accurate and complete to the best of my knowledge and belief, and reflects the current and planned activities of the operation; and that, if this plan was completed by a nutrient management specialist, I have reviewed the final completed plan and the specialist has discussed the content and implementation of this plan with me, subject to the penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

**Operator Signature** 

**Operator Title** 

VP Racing, Dale Rapson

Date

9/20/2018

## Appendix 2 Operation Information

#### **Operation Description**

Animal types and numbers; cropland, hayland and pastureland acreage; farmstead acreage; crop rotation (crops, sequence of crops, and number of years for each crop); manure group management, including atypical manure (contributing animal groups, collection, storage and handling procedures); mortality composting management.

Pocono Downs is a harness racing track with live races from April to November. Horses begin arriving the first week of March for training and races begin the end of March and are held 4 days a week. This plan is being written for a 512 horse maximum capacity across all stalls for the entire 270 day racing season. Straw bedding is the primary bedding materials. The horses are always stabled except for approximately 120 horses racing for 5 hours each race day, a maximum of 100 horses practicing for 7 hours Monday through Saturday and 12 hours on Sunday. All collected manure, including straw is exported from this operation to a broker. There are no crops, pastureland or hayland on this operation. There is 216 acres of farmstead. At the stables on the backside, manure is temporarily stored in 6' X 4 ' X 4 ' 3- sided metal containers with floor and lid. There are approximately 5 of these containers per stable. There are emptied throughout the day into truck containers. Manure from the race track and practice track and animal walkways will be removed on a daily based and placed in the manure storage. The Paddock barn manure is removed on a daily basis or on an as needed basis. If the Paddock barn stables are bedded with straw, the manure is transferred to the onsite manure storage facility. Sub-samples are taken from various storage containers throughout the facility of the straw manure. Horses that die during a race are taken to a facility for autopsy and disposal. If a horse dies while not racing, it is removed by a rendering company.

#### County(s)

Luzerne

#### Name of Receiving Stream(s)/Watershed(s)

Mill Creek

#### **Notation of Special Protection Waters**

None

#### **Operation Acres**

Total Acres: 216

#### Total Acres Available for Nutrient Application Under Operator's Control

Owned: 0

Rented: 0

#### Names & Addresses of Owners of Rented or Leased Land

NA

#### **Existing Manure Storages & Capacity**

Type of storage, dimensions, useable capacity, freeboard, top or bottom loaded, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding. Briefly describe, for each manure group, manure storage management during removal (degree of agitation, method of manure removal, extent the storage is emptied, type of unremoved manure, etc.) and manure sampling procedures.

Approximately 3 truck containers 40 ' X 8 ' X 6 ' with a capacity of 22 tons are utilized. Sub-samples are taken from various storage containers throughout the facility of the straw manure. The existing manure storage is proposed to be removed. The proposed manure storage will replace the existing manure storage facility and a description is as follows: Manure storage facility with Concrete pad covered structure concrete sides, 80' X 60' X 25', stacked 10' high with storage volume of 48,000 cu ft, located on map.

#### **Manure Application Equipment Capacity & Practical Application Rates**

Description of application equipment, practical application rates based on calibration and calibration method used, the data recorded during equipment calibration is to be retained on the farm. If applicable, name and Act 49 certification number of custom applicator.

No manure is applied to this operation. All of the manure is loaded by the broker onto his trucks. The broker is a licensed and certified manure hauler as regulated under Pennsylvania's Act # 49 Manure Haulers Regulations.

Appendix 3 Manure Group Information Crop Yrs. 2019, 2020, 2021	Horse manure with straw bedding				
Manure Report Date (note if averaging several reports)	April 3, 2018				
Laboratory Name	Waypoint				
Manure Type	Other				
Manure Unit (Ibs/ton or 1000 gal)	lb/ton	_			
Total Nitrogen (N) (lbs/ton or 1000 gal)	8.00	_			
Ammonium N (NH <sub>4</sub> -N) (lbs/ton or 1000 gal)	1.60	_			
Total Organic N (lbs/ton or 1000 gal)	6.40	Go to NMP Index			
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (lbs/ton or 1000 gal)	12.00	Go to Appendix 3 Input			
Total Potash (K <sub>2</sub> O) (Ibs/ton or 1000 gal)	6.00	Go to Manure Avg Input			
Percent Solids	28.00	Grazing Calculator			
PSC Value (analytical or book value)	0.80	-			
Percent Moisture	72.00				
Manure Group AEU's	416.61				
Description: Site & Season Applied	Proposed Manure storage	100% export			
Inventory Method	Records				
	Collected Calc.	Uncollected Calc.			
Manure Group Identification	Horse manure with straw bedding				
CALCULATED: Total Manure Collected Per Manure Group Units					
RECORDS: Total Manure Collected Per Manure Group	4,500.0				
Unit	tons				
	Collected	Uncollected			
Manure Used On-Farm	0.0	0.0			
Units	Tons				
Manure Exported	4,500.0				
Units	tons				
Manure Allocation Balance	0.0	0.0			
Units	Tons				
Manure Balance as a Percent of Total Manure Collected	0.0%				
Total Rainfall and Runoff	0				
	tons				

	-				
Appendix 3 Manure Group Information Crop Yrs. 2019, 2020, 2021	Horse manure with straw bedding				
	Manure Generation per Animal Group	Uncollected Manure: Nutrient Analysis Book Values			
Animal Group 1	Race Horse (straw)				
Animal Type	Light Horse Mature				
Animal Number	440	-			
Animal Weight	1100				
Animal Group AUs	484.00				
Animal Group AEUs	358.03				
Daily Manure Production per AU	55.0				
Total Days Manure Produced	270				
Total Manure Produced					
Days On Pasture	0	-			
Hours Per Day On Pasture	0				
Total Bedding					
Total Washwater					
CALCULATED - Total Uncollected Manure Per Animal Group					
Manure Collected Per Animal Group		App 3 Input			
Animal Group 2	Paddock Barn "Ship In"				
Animal Type	Light Horse Mature				
Animal Number	72	-			
Animal Weight	1100				
Animal Group AUs	79.20				
Animal Group AEUs	58.59				
Daily Manure Production	55.0				
Total Days Manure Produced	270				
Total Manure Produced					
Days On Pasture	0	-			
Hours Per Day On Pasture	0				
Total Bedding					
Total Washwater					
CALCULATED - Total Uncollected Manure Per Animal Group					
CALCULATED-Total Manure Collected Per Animal Group		App 3 Ipput			

App. 4: Crop Yrs. 2019, 2020, 2021	NA			
CMU/Field ID				
Acres		NA		
Soil Test Report Date		NA		
Laboratory Name		NA		
Soil Test Levels (Mehlich-3 P & K) (Show conversions to ppm in Appendix 10)	ppm P	ppm K	рН	
P Index Part A Evaluation				
Part A Result				
Сгор				
Planned Yield				
PSU Soil Test Recommendation (lb/A)	N	P2O5	K20	
User Soil Test Recommendation (Ib/A)				
Other Nutrients Applied (Ib/A) (Nutrients applied regardless of manure)				
P Index Application Method				
Double Crop CarryOver N (Ib/A)	0			
Manure History Description Residual Manure N (Ib/A)				
Legume History Description Residual Legume N (Ib/A)	0			
Net Nutrients Required (Ib/A)				
Manure Group		•		
Application Season: Management (Incorporation, cover crops, etc.)				
	Total N	NH4-N	Org. N	
Availability Factors (Total N or NH4-N & Organic N)				
P Index Application Method				
N Balanced Manure Rate (ton; gal/A)				
P Removal Balance Manure Rate (ton or gal/A; If required by P Index)	Crop P	Removal (Ib/A)		
P Index Value		#VALUE!		
Planned Manure Rate (ton or gal/A)	No Manu	re Applied		
Nutrients Applied at Planned Manure Rate (Ib/A)	0	0	0	
Nutrient Balance after Manure	Ť	Ű	Ŭ	
Supplemental Fertilizer (Ib/A)	0	0	0	
P Index Application Method	Ť	I Ő	I	
Final Nutrient Balance (Ib/A)	0			
	-	1		
Manure Utilized on CMU				
	1			

Appendix 5 - P Index	No P Inde	ex Part B fie	elds in this Pla	an	Go to NMP Index	
Crop Yrs. 2019, 2020, 2021	Pennsylvania P Inde	ex Version 2			Go to App 4 Input	
PART A: SCREENING TOOL CMU/Field ID			PART A: SCREENING	FOOL	CMU/Field ID	
Is the CMU in a Special Protection watershed?		Is the CMU in a Specia	I Protection watershed?			
A significant farm management change as defined by Act 38?		Is there a significant fa	rm management change as c	lefined by Act 38?	If the answer is Yes to	
Soil Test Mehlich 3 P greater than 200 ppm P?		Is the Soil Test Mehlich	3 P greater than 200 ppm P	? (enter soil test value in ppm P)	any of these questions.	
Contributing Distance from CMU to receiving water <150 ft ?		Is the Contributing Dist	ance from this CMU to receiv	ving water less than 150 ft.?	Part B must be used.	
Is winter manure application planned for this field ?		ls winter manure applic	cation planned for this field ?			
Run P Index Part B voluntarily2 (No to all Part A questions.)	-	Run P Index Part B vol	untarily? (Answers are Not	to all Part A questions		
PART B: SOLIRCE FACTORS: Mehlich 3 Soil Test P (nom P)		INUT TIDEX T AT D VOI	Mehlich 3 Soil Test P (pr	om P)		
Soil Test Pating = 0.20* Mehlich 3 Soil Test P (npm P)				5		
EEPTH IZER D ADDI IED DECADDI ESS OF MANUER (Starter or other)					Fertilizer P (lb P2O5/acre)	
FERTILIZER P APPLIED REGARDLESS OF MANORE (Statler of other)	0.2	0.4	0.6	0.8	1.0	
P INDEX APPLICATION METHOD OF FERTILIZER P APPLIED REGARGLESS OF MANURE <sup>3</sup>	Placed or injected 2" or more deep	Incorporated <1 week following application	Incorporated > 1 week or not incorporated following application in April - October	Incorporated >1 week or not incorporated following application in Nov March	Surface applied to frozen or snow covered soil	
SUPPLEMENTAL P FERTILIZER					Fertilizer P (lb P2O5/acre)	
P INDEX APPLICATION METHOD OF SUPPLEMENTAL P FERTILIZER	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application	0.8 Incorporated >1 week or not incorporated following application in	1.0 Surface applied to frozen or snow covered soil	
Fertilizer Pating - Fertilizer Pate y Fertilizer Application M	ethod		In April - October	Nov March		
rennizer Rating = rennizer Rate x rennizer Application m						
MANURE P RATE					Manure P (lb P2O5/acre)	
MANURE APPLICATION METHOD <sup>3</sup>	0.2 Placed or injected 2" or more deep	0.4 Incorporated <1 week following application	0.6 Incorporated > 1 week or not incorporated following application in April - October	0.8 Incorporated >1 week or not incorporated following application in Nov March	1.0 Surface applied to frozen or snow covered soil	
P SOURCE COEFFICIENT <sup>3</sup>	Refer to: Test results for P Source Coefficient OR Book values from P Index Fact Sheet Table 1					
Manure Rating = Manure Rate x Manure Application Metho	od x P Source Coeffi	icient				
Source Factor Sum						
PART B: TRANSPORT FACTORS						
EROSION			Soil Loss (ton/acre/y	r)		
RUNOFF POTENTIAL	0 Drainage Class is Excessively	2 Drainage Class is Somewhat Excessively	4 Drainage Class is Well/Moderately Well	6 <i>Drainage Class is</i> Somewhat Poorly	8 Drainage Class is Poorly/Very Poorly	
SUBSURFACE DRAINAGE	0 None		1 Random		2 <sup>1</sup> Patterned	
CONTRIBUTING DISTANCE	0 > 500 ft.	2 350 to 500 ft.	4 200 to 349 ft.	6 100 to 199 ft. OR < 100 ft. with 35 ft. buffer	9 <sup>2</sup> < 100 ft.	
Transport Sum = Erosion + Runoff Potential + Subsurface	Drainage + Contrib	uting Distance				
MODIFIED CONNECTIVITY	50 ft. Ri APPLIES TO	0.85 iparian Buffer ) DIST < 100 FT	1.0 Grassed Waterway or None	1.1 Direct Connection APPLIES	TO DIST > 100 FT	
Transport Sum x Modified Connectivity / 24						
P Index Value = 2 x Source x Transport						
Low: 59 or less Nitrogen based management	Medium: 60 to 79 Nitrogen based management	High: 80 to 99 Phosphorus limited to cro	op removal	Very High: 100 or greater No Phosphorus applied		

OR rapidly permeable soil near a stream
"9" factor does not apply to fields receiving manure with a 35 ft. buffer.
Error Note: if there is a manure or fertilizer rate and there is no corresponding method factor or PSC, it will display an "E".

## Appendix 6 Manure Management

## Date of Site **Evaluation:**

9/13/2018, 4/3/2018

#### Statement Documenting Areas Evaluated During Site Evaluation

List and clearly identify each of the specific areas evaluated.

ACA alongside access road, Stables (backside), practice track, sediment basin, manure storage areas and paddock barns.

#### Identification of Inadequate Manure Management Practices and Conditions List of each specific inadequate manure management practice or condition identified.

Spilled manure around storages. Animal Concentration area discovered, All manure around storage facilities should be picked up or cleaned up daily.

#### **BMPs to Address Manure Management Problem Areas**

List of specific BMPs (including PA Technical Guide standard name and number) and management changes that will be implemented to address each of the inadequate practices listed above.

All spilled manure around storage facilities should be picked up or cleaned up daily. Keep manure within the designed manure storage facility. Animal Concentration area was reseeded with grass and fencing was removed.

## Appendix 7 Stormwater Control

Date of Site	
<b>Evaluation:</b>	

9/13/2018, 4/3/2018

#### **Statement Documenting Areas Evaluated During Site Evaluation**

List and clearly identify each of the specific areas evaluated.

All storm water facilities which include: the infield of the main racetrack, other storm water facilities located outside the track, Sediment basin on the backside, northwest of stable B

#### **Identification of Critical Runoff Problem Areas**

List of each specific critical runoff problem area identified.

Sediment basin is not functioning properly with red clay material remaining in suspension.

#### **BMPs to Address Critical Runoff Problem Areas**

List of BMPs (including PA Technical Guide standard name and number) and specific management changes that will be implemented to address each of the critical runoff problem areas listed above.

All BMPs will be installed by Summer of 2019. Stable B and Lasik barn will be removed (500). The concrete manure storage will be removed (360). All wash pads at remaining stables C-P will be capped and sealed while 4 new roofed wash areas will be constructed to outlet to the city sewer (634, 367). A water reuse system will be installed (378, 436, 520, 521A, 554, 570, 587, 606, 620) to transfer stormwater to a lined impoundment. Topsoil will be replaced and meadow grasses planted on 5.27 acres (327, 342, 390, 512). The sediment basin (350) will be enlarged. The sediment basin (350) will be operated and maintained on an ongoing basis.

## Appendix 8 Importer/Broker Agreements & NBSs

Nutrient Balance Sheets are not required for importers that have an approved Nutrient Management Plan.

## **Exporter/Broker Agreement**

Developed consistent with the PA Nutrient and Odor Management Act Program

1) This agreement is entered into on \_February 7, 2017 , by

The 'Downs Racing, LP (the "exporter") who will supply manure, and

Silvana Trucking, Inc. (the "broker") who will receive the manure from the exporter.

- The purpose of this agreement is to set forth the mutual responsibilities and understanding of the parties with respect to the export of manure from the exporter to the broker.
- The <u>exporter</u> is located at (county, twp, and address): <u>1280 Highway 315. Wilkes-Barre</u>, PA Plains Township, Luzerne County
- 4) The exporter will, as the supply of manure allows, provide the following amounts of manure during the seasons outlined below:

Tons of (Species) manure, per season:

Spring 1,500 Summer 1,500 Fall 1,500 Winter -0.

Gallons of (Species) manure, per season:

Spring \_ Summer \_

Total plauned manure exported: (supply of manure may be less than what is plauned)

Fall

Winter

Tous of (Species) manure: \_\_\_\_\_\_ Gallons of (Species) manure: \_\_\_\_\_\_

If multi-species are planned, please add additional lines:

- 5) The broker's contact information is as follows:
  - a) Name: \_\_\_\_\_\_ Silvana Trucking, Inc.
  - b) Address: PO Box 63, Rehrersburg, PA 19550
  - c) Telephone number: 610-656-9821.
  - d) PDA Manure Broker Certification number: . 811-MB1
- 6) The Broker agrees to maintain their status as a certified Commercial Manure Broker as provided under Pa's Commercial Manure Hauler and Broker Certification Program (7 Pa Code Chapter 130e).
- 7) The Broker agrees to comply with all requirements established by section 5 of the Commercial Manure Hauler and Broker Certification Act regarding the development and

October 2015 Version

distribution of nutrient balance sheets to importing operations and conservation districts when handling manure from a CAO, CAPO or volunteer operation. Specifically, where a broker under this agreement, makes arrangements for land application of the manure on an importing agricultural operation, the broker must:

- a. Provide a NBS to all importing operations receiving manure for land application, no later than the time of manure transfer
- b. Provide copies of the NBS, no later than the time of manure transfer, to the county conservation district where the manure originated (exporting operation county)
- c. Provide copies of the NBS, no later than the time of manure transfer, to the county conservation district where the manure is being applied (importing operation county)

Where a broker under this agreement, arranges for the use of manure for purposes other than land application, the broker is not required to supply a NBS to the importing operation

- 8) The exporter will use a Manure Export Sheet to record all manure exported to the broker. These Manure Export Sheets are available from the county conservation district or the State Conservation Commission. Computer generated forms other than the manure export sheet may be used if they contain the same information as, and are reasonably similar in format to, the forms available from the State Conservation Commission or the conservation district.
- 9) This agreement shall remain in full effect unless terminated by either party upon thirty days prior written notice to the other party. If this agreement is terminated, the exporter shall notify the county conservation district office that approved their nutrient management plan, of the termination.
- 10) By signing this agreement, the broker accepts full responsibility for the manure received from the exporter as long as the manure is under the broker's control, including handling, storage and land application.

Exporter Signature, Name and Date (signature) Dale Rapson (name) February 7, 2017 (date)

Broker Signature, Name and Date (signature) (name) (date)

October 2015 Version

## Appendix 9 Operation Maps

Three types of maps are required for an Act 38 Nutrient Management Plan: 1) Topographic Map, 2) Soils Map, and 3) Operator Management Map. The **Topographic Map and Soils Map** must be included here. The Topographic map must be drawn to scale and identify the land included in the plan with operation boundaries. The Soils Map must include the field identification and boundaries, soil types and slopes with soil legend. Adding P Index lines can be helpful on the Topographic or Soils map but are not required. The Operator Management Map must be included in the Nutrient Management Plan Summary.

## NMP SOIL MAP - Downs Racing LP dba Mohegan Sun at Pocono Downs



## NMP TOPO MAP - Downs Racing LP dba Mohegan Sun at Pocono Downs



### Appendix 10 Crop Years 2019, 2020, 2021 Supporting Information & Documentation

Includes if applicable the Rainfall Additions Worksheet, Winter Application Matrix, Residual N Calculation Worksheet and other supplemental worksheets included in the NMP Spreadsheet. Attach information and documentation necessary to support plan content not included elsewhere in the NMP Spreadsheet or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, bedding calculations, or calculations for irrigation rates.

Manure Analysis 5 Year Running Average								
Manure Average for Crop Years. 2019, 2020, 2021	Horse manure with straw bedding							
	Average	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago		
Manure Report Date	Apr 03 2018	Apr 03 2018						
Laboratory Name	Waypoint	Waypoint						
Manure Type	Other	Other						
Manure Unit (Ibs/ton or 1000 gal)	lb/ton	lb/ton						
Total Nitrogen (N) (lbs/ton or 1000 gal)	8.00	8.00						
Ammonium N (NH₄-N) (Ibs/ton or 1000 gal)	1.60	1.60						
Total Organic N (lbs/ton or 1000 gal)	6.40	6.40						
Total Phosphate (P <sub>2</sub> O <sub>5</sub> ) (Ibs/ton or 1000 gal)	12.00	12.00						
Total Potash (K <sub>2</sub> O) (lbs/ton or 1000 gal)	6.00	6.00						
Percent Solids	28.00	28.00						
PSC Value (Enter analytical or book value)	0.80	0.80						



September 18, 2018

Re: Signatory Authority for Mohegan Commercial Ventures-PA, LLC

Dear Sirs:

Downs Racing, L.P., d/b/a Mohegan Sun Pocono ("MSP") previously issued a letter signed by Anthony Carlucci, President and General Manager indicating that Dale Rapson was authorized to sign on a limited basis, documents concerning the Nutrient Treatment Plan on behalf of MSP. Subsequently we learned that your agency was requesting a letter on the letterhead of Mohegan Commercial Ventures-PA, LLC. Attached hereto, and only for the limited purpose of this project, please find a copy of a Consent Resolution of the Managers of Mohegan Commercial Ventures-PA, LLC which appoints Anthony Carlucci as President of each of the Pennsylvania Partnerships and is therefore authorized to take all appropriate actions to execute all notices, documents, contracts and instruments which are necessary....

By virtue of the foregoing as set forth more fully in the attached resolution, the letter of Mr. Carlucci, which was previously submitted is dully authorized by Mohegan Commercial Ventures-PA, LLC.

MSP respectfully request that the attached Resolution be kept confidential. If I can be of any further assistance in this matter please feel free to contact my office.

Very Truly yours Michael C. Epps, Esq.

Vice President of Legal & Compliance



1280 Highway 315 • Wilkes-Barre, Pennsylvania 18702 • 1.888.WIN.IN.PA • mohegansunpocono.com

#### UNANIMOUS WRITTEN CONSENT OF THE MANAGERS OF MOHEGAN COMMERCIAL VENTURES-PA, LLC

The undersigned, comprising all of the Managers of Mohegan Commercial Ventures-PA, LLC (the "Company"), hereby consent to and approve the resolutions, matters and actions set forth below without the necessity of calling to order a meeting of the Managers pursuant to Article VIII of the Operating Agreement of the Company, as the same has been amended from time to time ("Operating Agreement"):

RESOLVED, that the Company, as the General Partner of the following limited partnerships: Downs Racing, L.P., Northeast Concessions, L.P., Mill Creek Land, L.P. and Backside, L.P. (individually or collectively, the "Pennsylvania Partnership(s)"), is authorized pursuant to Section 5.1 of each Amended and Restated Limited Partnership Agreement of the Pennsylvania Partnerships, each of which is dated as of January 25, 2005 (individually or collectively the "Partnership Agreements)") to manage and control the business of the Pennsylvania Partnerships including, but not limited to, the appointment of any individual as an officer of each Pennsylvania Partnership;

RESOLVED, that the Company and its Managers hereby appoint Anthony Carlucci as President and General Manager of each of the Pennsylvania Partnerships, to hold such office until such time as he is removed or colaced in accordance with the Partnership Agreements;

RESOLVED, that any Manager or Officer of the Company is authorized to take all appropriate actions and to execute all notices, documents, contracts and instruments which are necessary and appropriate to carre-out the resolutions adopted hereby; and

RESOLVED, that this written action may be executed in one or more counterparts and signatures submitted via tassimile or portable document format (".pdf") shall be deemed to have the same force and effect as an original signature.

IN WITNESS WHEREOF, the undersigned have duly executed this consent effective as of the 12<sup>th</sup> day of August, 2016.

Kevin P. Brown

Robert J. Soper

# MOHEGAN SUN

April 6, 2018

Evan Fitzpatrick Red Barn Consulting, Inc. 3050 Yellow Goose Road Lancaster, PA 17601

Re: Nutrient Management Plan

Dear Mr. Fitzpatrick,

My name is Anthony Carlucci and I am President of Downs Racing, LP. It is my understanding that there are certain documents to be executed in furtherance of approval of our Nutrient Management Plan amendment. Please be advised that I hereby authorize Dale Rapson to execute any and all documents necessary for the limited purpose of compliance with the Act 38 Nutrient Management Plan and Odor Management Plan.

Very truly yours

E

Anthony Carlucci President





## NOTES:

- 1. THE BASE MAP HAS BEEN CREATED USING AVAILABLE AERIAL PHOTOGRAPHY PROVIDED BY PAMAP TILES USGS EARTHSTAR GEOGRAPHICS. EXISTING TOPOGRAPHY HAS BEEN CREATED USING SURVEY PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP (OCTOBER 2005).
- PROPERTY LINES AND OWNER INFORMATION ARE TAKEN FROM EXISTING SURVEY PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP (OCTOBER 2005).
- THIS PLAN IS IN THE PENNSYLVANIA STATE PLANE NORTH, NORTH AMERICAN DATUM 1983 (NAD 83) COORDINATE SYSTEM.

LEGEND

EXISTING PROPERTY LINE

S S S EXISTING SEWERLINE

G G G EXISTING GASRLINE

EXISTING TREELINE

-----

---- PROPOSED CHANNEL

PROPOSED CHAIN LINK FENCE

NPDES BOUNDARY

EXISTING MAPPED WATERCOURSE

 $\psi$   $\psi$   $\psi$   $\psi$ 

EXISTING WETLANDS

FEMA FLOODWAY (APPROXIMATE 50'

PROPOSED EROSION CONTROL PRODUCT

EXISTING UTILITY POLE



This Drawing shall not be used for tender or construction unless sealed. I do hereby certify to the best of my knowledge, information and belief, that the Erosion and Sediment Control and Site Restoration Plan and Post Construction BMPs are true and correct, represent actual field conditions and are in accordance with the 25 Pa. Code Chapters 78 and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. milm

This drawing, its contents, and each component of this drawing are the property of and proprietary to ARM Group Inc. and shall not be reproduced or used in any manner except for the purpose identified on the Title Block, and only by or on behalf of this client for the identified project unless otherwise authorized by the express, written consent of ARM Group Inc.

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NCN-FINAL FORM

violath. Day and Year

The final form of the plan will be available Version 2-0 at least 7 days prior to Board action. You This NMP may be revised prior to a formal may contact the Conservation District to action by the Conservation District Board action by the Conservation District Board The final form of the plan will be availa Nutrient Management Planetermine the current status of the NMP at least 7 days prior to Board action. You mill contact the Conservation District to Month, Day and Year at least 7 days prior to Board action. You may contact the Conservation District to determine the current status of the NMP For Crop Year(s) potember 20,2018 2019 2020

2021

Prepared For **Operator's Name, Mailing Address, Telephone Number(s)** 

DOWNS RACING LP doing business as - Mohegan Sun at Pocono Downs 1280 Highway 315 Wilkes-Barre, PA 18702 Office: 570-831-2166, Cell: 570-507-0156

**NON-FINAL FORM** 

Version 3.0 This NMP may be revised prior to a formal action by the Conservation District Board. The final form of the plan will be available at least 7 days prior to Board action. You may contact the Conservation District to determine the current status of the NMP Month, Day and Year

Site Name (CAFOs)

DOWNS RACING LP

Prepared By Nutrient Management Specialist's Name, Address, Telephone Number(s)

> EVIN FITZPATRICK 3050 YELLOW GOOSE ROAD LANCASTER, PA 17601 717.393.2176

**Nutrient Management Specialist's Program Certification Number** NMC#2001

Administratively Complete Date

Plan Approval Date

#### Plan Update Submission Date(s)

(updates to the approved plan not requiring board action)

**FINAL FORM** 

This version of the plan will be considered for action by the Conservation District Board Sec at their November 13, 2018 meeting October 25, 2018 MONTH, DAY AND YEAR

Version 6.3 - August 2018

PA Bulletin Notice July 21, 2018 Expires August BD; 2018 Extension of Review Granted till Nacember 13, 2018 MACO

## **NON-FINAL FORM**

Version 1.0 This NMP may be revised prior to a formal action by the Conservation District Board.



#### COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

DATE: October 29, 2018

TO: State Conservation Commission Members

- FROM: Frank X. Schneider, Director Nutrient and Odor Management Programs
- THROUGH: Karl G. Brown Executive Secretary
- RE: Nutrient Management Advisory Board

Governor Wolf recently signed into law, as part of Act 162 of 2018, changes to the membership and roles of both the Department of Environmental Protection (DEP) Agricultural Advisory Board (AAB) and the State Conservation Commission (SCC) Nutrient Management Advisory Board (NMAB).

In regards to the NMAB, Act 162 of 2018, specifically:

- 1. Adds a livestock producer (any species) which will become effective and the end of the commercial agricultural lender terms
- 2. Deletes the commercial agricultural lender position.
- 3. The six livestock producers shall be nominated in a manner that provides representation of the northwest, north central, northeast, southwest, south central, and southeast regions of the Commonwealth, corresponding to the Department of Environmental Protections (DEPs) regional offices.
- 4. Two of the livestock producers shall hold an active Concentrated Animal Feeding Operation (CAFO) permit.
- 5. Changes from 60 days to 90 days that the commission shall give to the NMAB to comment on the proposed regulations, guidelines or criteria.

Attached you will find:

- 1. A listing of the membership of the NMAB and their terms, along with the new changes under Act 162 of 2018.
- 2. Senate Bill 1171 (the bill that became part of Act 162 of 2018)
- 3. Fiscal note on Senate Bill 1171

#### THE GENERAL ASSEMBLY OF PENNSYLVANIA

# SENATE BILL No. 1171 Session of 2018

- INTRODUCED BY BROOKS, HUTCHINSON, VULAKOVICH, WAGNER AND BROWNE, MAY 18, 2018
- AS AMENDED ON SECOND CONSIDERATION, HOUSE OF REPRESENTATIVES, OCTOBER 16, 2018

#### AN ACT

Amending Titles 3 (Agriculture) and 27 (Environmental Resources) of the Pennsylvania Consolidated Statutes, in nutrient management and odor management, further providing for the Nutrient Management Advisory Board; and, in Agricultural Advisory Board, further providing for establishment of board, FOR POWERS OF BOARD AND FOR REVIEW OF REGULATIONS.

The General Assembly of the Commonwealth of Pennsylvania

hereby enacts as follows:

Section 1. Section 510(a) and (d) of Title 3 of the Pennsylvania Consolidated Statutes are amended to read:

§ 510. Nutrient Management Advisory Board.

(a) Creation.--There is created the Nutrient Management Advisory Board. The board shall consist of 16 members appointed by the chairman of the commission and approved by a two-thirds vote of the commission. The members so appointed shall consist of [five] <u>six</u> active commercial farm owners or operators representing the livestock, swine, meat poultry, egg poultry and
dairy industry nominated by Statewide general farm organizations, one veterinary nutrition specialist, one representative from the feed industry, one representative from the fertilizer industry, [one representative of commercial agricultural lenders,] one representative of local government, one representative of academia who shall be an agronomist or plant scientist faculty member of the school of agriculture of a Pennsylvania college or university, one representative of academia who shall be an animal science faculty member with an expertise in odor management from the school of agriculture of a college or university within this Commonwealth, one hydrologist, two citizen representatives who are not farmers and one environmental representative, all of whom shall have sufficient knowledge, experience or familiarity with agronomic practices, nutrient management practices or odor management practices and all of whom shall be residents of this Commonwealth. The six active commercial farm owners or operators shall be nominated in a manner that provides representation of the northwest, north central, northeast, southwest, south central and southeast regions of this Commonwealth, corresponding to the regions served by the Department of Environmental Protection regional offices. Two of the six active commercial farm owners or operators shall hold an active concentrated animal feeding operation permit as required by the act of June 22, 1937 (P.L.1987, No.394), known as The Clean Streams Law.

\* \* \*

(d) Duties.--The board shall review and comment on all commission proposed regulations[, the interim guidelines under section 504(2) (relating to powers and duties of commission) and the interim criteria under section 504(5)] developed to implement the provisions of this chapter. The commission shall have no power to promulgate regulations[, interim guidelines or interim criteria] under this chapter until receipt of written comments on the proposed regulations[, guidelines or criteria] from the board or until [60] <u>90</u> days have expired from the date when the regulations[, guidelines or criteria] were submitted by the commission to the board for its comments. Existing regulations[, guidelines and criteria] shall continue until modified, superseded or repealed by the commission.

\* \* \*

Section 2. Section 702(b) of Title 27 is amended by adding a paragraph to read:

SECTION 2. SECTIONS 702(B)(2), 703 AND 704(A) AND (B) AND 703 OF TITLE 27 ARE AMENDED TO READ:

§ 702. Establishment of board.

\* \* \*

(b) Members.--The following persons shall comprise the board:

\* \* \*

(7) Two members appointed by the secretary that hold an active concentrated animal feeding operation permit as required by the act of June 22, 1937 (P.L.1987, No.394), known as The Clean Streams Law.

\* \* \*

(2) A DAIRY PRODUCER, A LIVESTOCK PRODUCER, A POULTRY PRODUCER, A GRAIN PRODUCER, A FRUIT PRODUCER, A VEGETABLE PRODUCER, A REPRESENTATIVE OF THE ORNAMENTAL HORTICULTURAL INDUSTRY, A PRODUCER ENGAGED IN SUSTAINABLE AGRICULTURE, A REPRESENTATIVE FROM THE AGRICULTURAL CHEMICAL MANUFACTURERS INDUSTRY AND A REPRESENTATIVE FROM THE AGRIBUSINESS INDUSTRY. THE GOVERNOR SHALL APPOINT THESE REPRESENTATIVES TO SIT FOR A THREE-YEAR TERM. REPRESENTATIVES APPOINTED UNDER THIS PARAGRAPH MUST RECEIVE A MAJORITY OF THEIR GROSS INCOME FROM THE ACTIVITY WHICH THEY REPRESENT. <u>TWO OF THE REPRESENTATIVES</u> <u>APPOINTED UNDER THIS PARAGRAPH SHALL HOLD AN ACTIVE</u> <u>CONCENTRATED ANIMAL FEEDING OPERATION PERMIT AS REQUIRED BY</u> <u>THE ACT OF JUNE 22, 1937 (P.L.1987, NO.394), KNOWN AS THE</u> <u>CLEAN STREAMS LAW.</u>

\* \* \*

§ 703. POWERS OF BOARD.

(A) GENERAL RULE.--THE BOARD SHALL HAVE THE FOLLOWING POWERS:

(1) PROVIDE ADVICE AND EXPERTISE TO THE [SECRETARY] <u>DEPARTMENT</u> REGARDING THE NATURE OF AGRICULTURE IN THIS COMMONWEALTH.

(2) [ASSIST THE SECRETARY AND PROVIDE WRITTEN COMMENTS ON NEW DEPARTMENTAL POLICY THAT WILL IMPACT UPON AGRICULTURE IN THIS COMMONWEALTH.

(3) ASSIST THE SECRETARY AND PROVIDE COMMENT ON REGULATORY, PERMITTING, TECHNICAL GUIDANCE AND POLICY PROPOSALS PURSUANT TO SECTION 704 (RELATING TO REVIEW OF REGULATIONS).] CONSULT WITH THE DEPARTMENT ON NEW DEPARTMENTAL POLICY AND REVISIONS TO EXISTING DEPARTMENTAL POLICY AND ON PROPOSED TECHNICAL GUIDANCE THAT WILL AFFECT AGRICULTURE IN THIS COMMONWEALTH.

(4) [PROVIDE COMMENT TO THE SECRETARY REGARDING EXISTING DEPARTMENTAL POLICY, PERMITTING, TECHNICAL GUIDANCE AND

REGULATIONS AFFECTING AGRICULTURE IN THIS COMMONWEALTH.] <u>CONSULT WITH THE DEPARTMENT ON PROPOSED REGULATIONS AND</u> <u>PROPOSED GENERAL PERMITS THAT REGULATE AGRICULTURE IN THIS</u> COMMONWEALTH.

(B) EXEMPT REGULATIONS.--REGULATIONS SUBJECT TO REVIEW BY THE SEASONAL FARM LABOR COMMITTEE UNDER THE ACT OF JUNE 23, 1978 (P.L.537, NO.93), KNOWN AS THE SEASONAL FARM LABOR ACT, ARE EXEMPT FROM REVIEW UNDER SUBSECTION (A).

SECTION 2.1. SECTION 704(A) AND (B) OF TITLE 27 ARE AMENDED AND THE SECTION IS AMENDED BY ADDING A SUBSECTION TO READ: § 704. REVIEW OF REGULATIONS AND OTHER DOCUMENTS.

(A) NOTICE TO BOARD.--

(1) THE DEPARTMENT SHALL NOTIFY <u>OF AND PROVIDE</u> THE BOARD [OF THE DEVELOPMENT OF] <u>WITH</u> ANY REGULATORY PROPOSAL, <u>PERMIT</u>, <u>TECHNICAL GUIDANCE OR DEPARTMENTAL POLICY</u> OR PROPOSED <u>GENERAL PERMIT</u> WHICH WOULD REGULATE <u>OR AFFECT</u> AGRICULTURE [AS EARLY AS POSSIBLE BUT NOT LESS THAN 120 DAYS PRIOR TO:

(I) THE DATE THE ENVIRONMENTAL QUALITY BOARD MEETS TO INITIALLY CONSIDER ANY PROPOSED RULEMAKING RESULTING FROM THE REGULATORY PROPOSAL(.);

(II) THE DATE THE DEPARTMENT PUBLISHES NOTICE TO ESTABLISH OR CHANCE A PERMIT; OR

(III) THE DATE THE DEPARTMENT ESTABLISHES A POLICY. (2) NOT LESS THAN 60 DAYS PRIOR TO AN ACTION UNDER PARAGRAPH (1)(I), (II) OR (III), THE DEPARTMENT SHALL PROVIDE THE BOARD WITH A WRITTEN VERSION IN SUBSTANTIALLY THE FORM THAT WILL BE PUBLISHED OR ESTABLISHED OF ANY REGULATORY, PERMIT, TECHNICAL GUIDANCE OR DEPARTMENTAL POLICY PROPOSAL THAT WOULD REGULATE OR AFFECT AGRICULTURE. (3) THE DEPARTMENT MAY NOT PUBLISH OR ESTABLISH ANY RECULATORY, PERMIT, TECHNICAL GUIDANCE OR DEPARTMENTAL POLICY PROPOSAL THAT RECULATES OR AFFECTS ACRICULTURE PRIOR TO BOARD REVIEW OF A DOCUMENT PROVIDED UNDER PARAGRAPH (2). ANY DISCUSSION OR DECISION BY THE BOARD RELATED TO THE REVIEW SHALL BE REFLECTED IN THE MINUTES OF THE BOARD.

(B) MEETING AND CONSULTATION WITH BOARD.--AT THE REQUEST OF THE BOARD, IF THE REQUEST IS MADE WITHIN 30 DAYS FROM THE DATE OF RECEIPT OF THE NOTICE REQUIRED BY SUBSECTION (A), THE DEPARTMENT SHALL MEET AND CONSULT WITH THE BOARD IN THE FORMULATION OF ANY SUCH REGULATORY, PERMIT, TECHNICAL GUIDANCE <u>OR DEPARTMENTAL POLICY</u> PROPOSAL, AND THEREAFTER THE BOARD MAY PROVIDE THE DEPARTMENT WITH WRITTEN COMMENTS THEREON.] <u>OR ANY</u> PROPOSED TECHNICAL GUIDANCE THAT WOULD AFFECT AGRICULTURE.

(B.1) BOARD REVIEW.--THE DEPARTMENT MAY NOT PUBLISH ANY PROPOSED REGULATION OR PROPOSED GENERAL PERMIT THAT REGULATES AGRICULTURE OR PROPOSED TECHNICAL GUIDANCE THAT AFFECTS AGRICULTURE PRIOR TO:

(1) CONSULTATION WITH THE BOARD IN THE FORMULATION OF THE PROPOSED REGULATION, PROPOSED GENERAL PERMIT OR PROPOSED TECHNICAL GUIDANCE, AS REFLECTED IN THE MINUTES OR BY WRITTEN COMMENTS OF THE BOARD; OR

(2) SIXTY DAYS FROM THE DATE WHEN THE PROPOSED REGULATION, PROPOSED GENERAL PERMIT OR PROPOSED TECHNICAL GUIDANCE WAS PROVIDED UNDER SUBSECTION (A), UNLESS THE BOARD SOONER DECIDES BY MAJORITY VOTE THAT NO CONSULTATION UNDER PARAGRAPH (1) IS REQUIRED.

\* \* \*

Section 3. Members of the Nutrient Management Advisory Board

AND MEMBERS OF THE AGRICULTURAL ADVISORY BOARD, as of the effective date of this section, shall continue to serve as members OF THEIR RESPECTIVE BOARDS until their present terms of office expire.

Section 4. This act shall take effect in 60 days.



## COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

DATE:	November 1, 2018
TO:	Members, State Conservation Commission
THROUGH:	Karl G. Brown, Executive Secretary State Conservation Commission
FROM:	Johan E. Berger, Conservation Program Specialist Financial Administration, Policy, Certification & Conservation District Programs
RE:	Request for designation of funds to a Reserve Account - Elk County Conservation District, Greene County Conservation District, Lycoming County Conservation District and Susquehanna County Conservation District.

# **Action Requested:**

Approval of requests from the Elk County, Greene County Lycoming County and Susquehanna County conservation districts for the designation of FY2018-19 allocated Unconventional Gas Well funds to 'Scholarship Program' or 'Building Fund' reserve accounts as noted in each respective request.

# **Background:**

The State Conservation Commission, through the *Conservation District Fund Allocation Program Statement of Policy*, created the opportunity for a conservation district to designate funds allocated by the Commission to 'reserve accounts' for certain administrative and programmatic functions of the district. Examples of designated uses for reserve accounts include: scholarship programs, employee separation costs and building fund/capital improvement projects. Designation of CDFAP funds to 'reserve accounts' must be approved by the Commission

The Commission recently received four (4) applications for designation of FY2018-19 CDFAP funds to 'reserve accounts' from the Elk County Conservation District (Elk CCD) (Attachment 1), the Greene County Conservation District, (Greene CCD) (Attachment 2), the Lycoming County Conservation District (Lycoming CCD) (Attachment 3) and the Susquehanna County Conservation Districts (Susquehanna CCD) (Attachment 4).

The <u>first application, from the Elk CCD</u>, requests designation of \$6,000 in allocated FY2018-19 UGW funds into a 'Building Reserve Account' the district would like to establish for future building lease, renovations or new construction. The Elk CCD Board of Director's acted to designate these funds at its August 27, 2018 public meeting.

The <u>second application, from the Greene CCD</u> requests the designation of \$5,000 in allocated FY2018-19 UGW funds into a 'Envirothon Education Scholarship' fund created by the district. The 'Greene County Envirothon Continuing Education Scholarship' fund was created with the intent to award each of the 5 members of the winning team, from the county's local Envirothon competition, with a \$500 scholarship award as per the district's scholarship policy. It is the intention of the district to supplement the scholarship fund with other funds contributed to the Scholarship fund and maintain the scholarship fund long term. The Greene CCD Board of Director's acted to designate the FY2018-19 funds at its August 21, 2018 public meeting

The <u>third application, from the Lycoming CCD</u>, requests to designate \$2,500 in allocated FY2018-19 UGW funds into their Envirothon Education Scholarship fund. At its September 12, 2017, public meeting, the State Conservation Commission approved the creation of a 'Scholarship Reserve Account', at the request of the Lycoming CCD, for use of UGW funds allocated to the district. The approved request placed \$2,500 of UGW funds into the new scholarship fund with the intent to award each of the 5 members of the winning team, from the county's local Envirothon competition, with a \$500 scholarship award as per the county's scholarship policy. The Lycoming CCD Board of Director's acted to designate the FY2018-19 funds at its October 17, 2018 public meeting.

The <u>fourth application, from the Susquehanna CCD</u> requests to designate \$89,015.97 in allocated FY2018-19 UGW funds into an existing 'Building Reserve Account'. At its March 17, 2015, public meeting, the State Conservation Commission approved the creation of a Building Reserve Account for Susquehanna CCD. The approved request placed \$108,254 of UGW funds in a reserve account for a new office building project. That building project is currently under construction. Subsequently UGW funds from FY2015-16, FY2016-17 and FY2017-18 allocations in an amount totaling \$234,878 were requested by the Susquehanna CCD for designation to the Building Reserve account and approved by the Commission. The Susquehanna CCD Board of Director's acted to designate the FY2018-19 funds at its August 16, 2018 public meeting.

#### **Recommendation:**

Staff recommends approval of the requests from the Elk CCD to designate \$6,000 to a Building Reserve Account for future building construction or renovation; the Greene CCD to designate \$5,000 to a Scholarship Reserve Account to support the district's Envirothon scholarship program; the Lycoming CCD's request to designate \$2,500 to its Scholarship Reserve Account to support the district's Envirothon scholarship program and the Susquehanna CCD to designate \$89,015.97 Building Reserve Account for current building project construction.

Attachments (4)

#### ATTACHMENT 1

# Proposed Building Reserve Account using SCC Allocated UGW Funds

District Name Elk County Conservation District

Date Board took action on creating this proposed account: August 27, 2018 (Please provide a copy of district board minutes)

Name of Proposed Reserve Account: Building Reserve Account

Purpose/description of account and the overall building project:

Potential future new building construction, future building lease and/or major renovations.

Length of time you expect account to remain active: Permanent (ex. 1 yr, 2 yr, permanent)
Who owns the property: Currently occupy building owned by County of Elk
If the property is not owned by the District, how long of a lease do you have:N/A
Will the District have a mortgage and how long will it be for after the building is complete: <u>N/A</u>
Fiscal management policy relating to the account:         How will you document expenditures in the account:       Quickbooks         Will the board take action on each transaction:       Yes         Who will have signature authority on the account:       Board Chair, Vice-Chair, Manager, 1 other member (ex. Manager, chair)
Expected Size of Account:\$6,000 to start this year

Will this account be replenished and if so how: \_\_\_\_Yes, with excess funds

# Elk Conservation District Meeting Minutes August 27, 2018

The regular meeting of the Elk County Conservation District was held on August 27, 2018. The meeting was called to order by Vice-Chairman Michael Hovatter at 4:30 p.m. with the Pledge of Allegiance to the Flag.

Those in attendance included:

Vice-Chairman:	Michael Hovatter
Directors:	Ray McMinn, Joe Labant, Jerry Olson, and
	Andy Sorg
Commissioner Director:	Matt Quesenberry
Associate Director:	Chris Smith
District Manager:	Steve Putt
Watershed Technician:	Stephanie Stoughton
Resource Conservation Tech:	Kelsey Kilhoffer
Secretary:	Diane Myers

Russ Braun, John Green, and Kate Yetzer were excused from the meeting. One member of the press was also present.

The July 23, 2018 meeting minutes were approved with a motion by Jerry Olson, seconded by Andy Sorg. All were in favor.

The Financial Statements for the period ending August 21, 2018 were reviewed with no comments and stand approved as submitted.

#### **District Manager's Report:**

District Manager Steve Putt's activities for the previous month have been included in his written report. He added that our intern, Tara Fisher, did a great job this summer.

#### Watershed Technician Report:

Stephanie Stoughton's activities for the previous month have been included in her written report.

#### **Resource Conservation Technicians:**

<u>Kate Yetzer's</u> activities for the previous month have been included in her written report. She was not present for the meeting.

<u>Kelsey Kilhoffer's</u> activities for the previous month have been included in her written report. She added that the Farm Tour was very successful and we received a lot of positive feedback.

1

## **Correspondence:**

There was no correspondence for the time period.

#### New Business:

<u>New DGR & LVR Bank Accounts</u>: Because the Center for Dirt & Gravel Roads will soon be requiring separate accounts for DGR & LVR funds, Steve requested approval to set up two new bank accounts at CNB Bank. A motion was made by Ray McMinn, seconded by Andy Sorg, to approve the two new checking accounts.

<u>CD UGWF Allocation Worksheet Approval:</u> A motion was made by Ray McMinn, seconded by Jerry Olson, to approve the 2018-19 CD UGWF Allocation Worksheet. All were in favor.

Building Reserve Account using SCC Allocated UGW Funds: Due to DEP and the State Conservation Commission limiting funding for CD UGW funds, Steve requested submitting a proposal to apply for a building reserve account with remaining funds which would total about \$6,000.00. A motion was made by Joe Labant, seconded by Ray McMinn, to approve the application for a building reserve account. All were in favor.

<u>Set up Bank Account for Building Reserve Account:</u> A motion was made by Joe Labant, seconded by Andy Sorg, to approve a new savings account for the building reserve account should the application be approved. All were in favor.

# Old Business:

<u>Dirt & Gravel / Low Volume Road Update:</u> Steve reported that Jones Township has started their Stony Road project. Jay Township will be starting their Spring Run project this week. We are waiting on the completion of the other approved contracts.

<u>Buffalo Turbine Lease Agreement:</u> A copy of the lease agreement was included in the mailing. Matt Quesenberry mentioned that the agreement was forwarded to Solicitor Tom Wagner for review and he found no problems. Mike Hovatter suggested some changes to include 3 consecutive work days, requesting some kind of security deposit, and having a maintenance checklist in place. The board agreed on a \$500.00 security deposit. The agreement will be tabled until the next meeting when the appropriate changes have been made.

<u>West Creek Wetlands Update:</u> Steve reported that the committee met last Tuesday to discuss maintenance issues. The St. Marys Ecology Club is interested in doing another work day so this may assist with some of the maintenance needed.

# **REPORTS FROM COOPERATING AGENCIES:**

No cooperative agencies were present for the meeting.

The meeting was adjourned at 5:20 p.m. with a motion by Jerry Olson, seconded by Ray McMinn. All were in favor.

The next meeting of the Elk County Conservation District will be held on Monday, <u>September 24, 2018</u> at 4:30 p.m. at the Community Recycling Center Office Building, 850 Washington Street, St. Marys, PA 15857.

# **ATTACHMENT 2**

Proposed Reserve Account
using SCC Allocated UGW Funds

District NameGreene County Conservation District
Date Board took action on creating this proposed account:8/21/2018 (Please provide a copy of district board minutes)
Name of Proposed Reserve Account:Continuing Education Scholarship Fund
<b>Purpose/description of account and the overall project:</b> Collect funds to be utilized for funding a \$500 per student scholarship annually for the winning Greene County Envirothon Team. Funds will be set aside for each student who participates on the county Envirothon winning tean which amounts to \$2500 annually. Each student is responsible for collecting their scholarship after their date of graduation. Checks are written out to the school of choice and the student. Students could potentially have a \$2000 scholarship when they graduate if they are on the winning team annually.
Length of time you expect account to remain active:permanent (ex. 1 yr, 2 yr, permanent)
<u>Scholarship Accounts</u> Does your district have an established Scholarship policy?yes if yes, please attach
<u>Separation Accounts</u> Do you have a district policy in regard to leave payout when staff retires or leaves district employment? If yes, please attach.
Do you expect staff retirements in the next 5 years? If so how many?
Other Type of Account: (Please describe)
<u>Fiscal management policy relating to the account:</u> How will you document expenditures in the account:permanent
Will the board take action on each transaction:nonono
Who will have signature authority on the account:two conservation district executive board members(ex. Manager, chair)
Expected Size of Account:15,000
Will these funds be in an interest bearing account?yes
Will this account be replenished and if so how:as we obtain funds from local sponsors



## Greene County Conservation District 22 West High Street – Suite 204 – Waynesburg, PA 15370 Phone 724-852-5278 – Fax 724-852-5341 E-Mail: gccd@co.greene.pa.us -- Website: http://www.co.greene.pa.us/gccd

# GREENE COUNTY CONSERVATION DISTRICT REGULAR MEETING MINUTES August 21, 2018

# CALL TO ORDER AND INTRODUCTION OF GUESTS

Chairman Eisiminger called the meeting to order at 10:05 a.m. at the Greene County Conservation District Conference Room, 22 West High St., Waynesburg, PA. Those in attendance were as follows:

# Greene County Conservation District Directors and Associate Directors

Bradley Eisiminger-Chairman; Jim Cowell-Vice Chairman; Archie Trader-Commissioner Representative; Mike Belding-Secretary; Tom Headlee-Treasurer; Jim Jones-Farm Director; Bill Wentzel-Public Director; Gay Thistle-Associate Director; Glodenna Halstead- Associate Director; Jerry Day-Associate Director and Dave Shipman-Associate Director.

# Staff

Lisa Snider-District Manager; Lindsay Kozlowski-Assistant Manager/Environmental Program Specialist; Jared Zinn-Watershed Specialist; Michaela Hildreth-Conservation Technician; Ben Schweiger- Conservation Technician and Lauren Weaver-Fiscal Officer

# **Guests and Cooperating Agencies**

Mike Hamilton-NRCS; Phil Evans NRCS

# Public Comments- None

# APPROVAL OF MINUTES

A motion was made by Tom Headlee to approve the minutes of the July 17<sup>th</sup>, 2018 meeting. Bill Wentzel seconded. (Motion Passed)

#### TREASURER'S REPORT

A motion was made by Jim Cowell to accept the treasurer's report. Mike Belding seconded. (Motion Passed)

# CORRESPONDENCE AND UPCOMING EVENTS

# Invasive Asian Longhorn Tick Confirmed in Pennsylvania

National Veterinary Services Laboratory in Ames, Iowa confirmed the presence of Asian, or longhorn tick, in Pennsylvania. This tick can cause anemia in livestock the tick was discovered on a wild deer in Centre County.

# STAFF REPORTS

Lindsay Kozlowski – Ms. Kozlowski added that they have received a new pipeline project, that extend from Franklin Township near the anchor compressor station through Whitley Township and Wayne Township to West Virginia State Line. EQT paid \$77,200.00 in E&S fees and an accelerated fee, \$35,225.00 Chapter 105 Fees, and \$500.00 Chapter 102 Fees. This is one of the largest projects that Ms. Kozlowski has received to date. Ms. Snider added that district employees do a great job and many companies are willing to pay an accelerated fee to get their permits and understand the district could use the help and are appreciative of the help and common sense applied to reviews by Conservation District staff.

Mr. Belding added that Ms. Wrights letter to the board talked about the professionalism and leadership of the Conservation board office. Mr. Wentzel added that it was great that she was carrying this information into the classroom.

<u>Jared Zinn</u> - Mr. Zinn stated that August has been a huge month for his outreach/education events. Also Mr. Zinn added that he did a third rain barrel work shop and he had 34 total participants.

<u>Ben Schweiger-</u> Mr. Schweiger mentioned that he had 29 new applications for the GRACE program, they have visited 23 of those farms and 2 of the applications are potential forestry plans.

<u>Michaela Hildreth-</u> Ms. Hildreth added to her report that she worked the fair to get more GRACE applications and it was a success. She has been working with other staff to learn about the permitting process with the Chapter 102 & 105 permitting.

Lisa Snider – Ms. Snider added that Peyton the West Nile Virus intern that she is trapping high numbers of mosquitos and more positives than normal. Peyton has been working with Zach and Brian from DEP to do barrier controls. Ms. Snider added that she wouldn't be surprised if we would need to do a spraying before the first frost. Peyton's last day is Friday and we will be going back to 3 shipments a week and other staff will take over what she is doing.

#### **OLD BUSINESS**

Burwell Cemetery – Bald Hill Church Road None

#### **NEW BUSINESS**

#### **Request for Assistance**

This meeting we had five people request for assistance as cooperators, Carl Biddle-Cumberland Township 536.65 acres, Carl Graham-Whitely Township 185.61 acres, Chris Eisiminger-Whiteley Township 199.8 acres, Greg Kime-Dunkard Township 29.32 acres, Charles Ralph Adamson-Wayne Township 381.16 acres.

A motion was made by Jim Cowell approve the 5 people that requested for assistance. Archie Trader seconded. (Motion Passed)

# Mobile Environmental Display for 2019 Greene County Fair

Mr. Zinn is requesting to purchase a mobile environmental display for the 2019 Greene County Fair the cost to rent the mobile unit for one week is \$125 plus mileage from and to Armstrong County. The trailer has water demonstrations and was developed in Armstrong County by the Carnegie Science Center and would teach the public about watersheds and water systems. It contains water quiz games, waveform tank, see like a fish activity along with other educational activities. GCCD would advertise the display ahead of time and man it once it has arrived. There is a lot of demand for this trailer that is why we need to request it a year in advance. Mr. Cowell mentioned that we have it arrive the Saturday before the fair starts so it can be delivered.

A motion was made by Mike Belding to move forward or reserving the Mobile Display for the 2019 Greene County Fair. Jim Cowell seconded. (Motion Passed)

#### **GRACE Update**

Mr. Schweiger brought forward a proposal that would allow compensation for lime purchased at 100% CCE. Many different supplies have CCE percentages that range from 80% (our minimum) to 110%. If a lime is purchased with CCE that is greater than 100 % then we would not pay them as much because they would not need as much lime and if the lime CCE is at 80% additional lime could be purchased and reimbursed.

A motion was made by Jim Cowell to change the formula for the lime reimbursement. Jim Jones seconded. (Motion Passed)

#### Support Letter West Greene FFA

Ms. Wright asked for approval to send a pre-drafted letter from the board to the West Greene FFA for local recommendation that the WG FFA program is supported by the Conservation District.

A motion was made by Mike Belding to send the letter to support the WG FFA. Jim Cowell seconded. (Motion Passed)

# 2018-2019 PUC & UGWF Funding Allocation

Ms. Snider presented a potential budget for the 2018-2019 UGWF funding use and ACT funding request, we will receive \$243,209.00. She budgeted for salaries, office supplies, administration, and special projects for the GRACE project. Ms. Snider had some money left over, she contacted the state and is going to use some of it toward the scholarships, and two winter interns. ACT funding is separate but included in the total from the UGWF funding.

A motion was made by Archie Trader to submit conservation district allocation worksheet as presented and the ACT funding request. Mike Belding seconded. (Motion Passed)

#### D&G Roads

Ms. Snider asked the board to consider an amendment to three of the current Dirt & Gravel Road projects. Greene Township, Woods Run Road the contract was signed approximately two years ago, the township realized that the project would require hiring a paving company to place the fill material in the road bed. This cost was not initially approved in their original contract and should add \$10,000.00 as an amendment to their contract.

Springhill Township's, Jobe Road project is lacking the permitting fees and engineering fees, Ms. Snider over looked this needs to be added to the current project. The amendment to their contract will be approximately \$5,000.00.

Jackson Township is finished with a Low Volume road and they did road fill in a streambank stabilization and the top tar and chip was not added in the original contract. Additional expenditures will be approximately \$1,200.

A motion was made by Jim Cowell to approve the amendment to the three contracts. Tom Headlee seconded. (Motion Passed)

#### **Cooperating Agencies**

Phil Evans NRCS- Mr. Evans and Ms. Hildreth went out to visit with Mr. Headlee about a ram pump, Mr. Evans said he didn't think there was enough water flow, he mentioned that it could be a potential for a spring development. The local work meeting held at the conservation office went well Mr. Evans said and he was appreciative that we were able to hold the meeting at our office. Mr. Evans questioned about having someone go for training for writing Nutrient Management plans, Ms. Snider said that we had no one at this time. October is the deadline to sign up for Equip.

Mr. Cowell gave thanks to everyone who helped him get everything together he needed to apply for the Leopold Award, he will know something in the month of September.

#### NEXT REGULAR MEETING

The next regular meeting will be held on September 18th, 2018 at 10:00 a.m.

# ADJOURNMENT

With no further business to discuss, a motion was made by Tom Headlee to adjourn the meeting at 11:03 a.m. Mike Belding seconded. (Motion Passed)

Respectfully submitted,

Lauren Weaver Fiscal Officer

# **MEETING MINUTES CERTIFICATION**

We, the undersigned, agree that the minutes taken above were approved in their entirety by the Greene County Conservation District on  $\frac{201}{25^{16}}$ , 2018.

Vice - Chairman, Greene County Conservation District

Secretary, Greene Coupty Conservation District



**Greene County Conservation District** 22 West High St.—Suite 204 – Waynesburg, PA 15370-1839 Phone 724-852-5278 – Fax 724-852-5341 E-Mail: <u>gccd@co.greene.pa.us</u> -- Website: <u>http://www.co.greene.pa.us/gccd</u>

# GREENE COUNTY ENVIROTHON CONTINUING EDUCATION SCHOLARSHIP GUIDELINES

# To be awarded at the annual Greene County Envirothon competition.

# First Place - \$500 Continuing Education Scholarship to each of the five team members.

Scholarships will be issued to the team member upon receipt of documentation of the team member's enrollment to the institution (accredited university, college, post-secondary vocational/technical school, or other institution as approved by the Greene County Conservation District Board of Directors).

Scholarships may be used up to two (2) years after a winning team member has graduated from high school or earned an equivalent certificate. In the interim, the scholarship money will be held by the Greene County Conservation District. In the event a team member chooses not to use the scholarship during the first year of eligibility, written notification must be made to the Greene County Conservation District Board of Directors of the individual's intent to defer the use of the grant to the next year.

Monies will be forfeited at the close of the two (2) year period, unless a written deferral form is submitted and approved by the Greene County Conservation District Board of Directors. Note: This two (2) year period does not begin until the student has graduated from high school or earned an equivalent certificate.

All monies dispersed to the recipient for the scholarship shall be dispersed by draft made payable to the recipient and to the institution of learning in which the recipient is enrolled.

The purpose of the education scholarship is to merit the commitment put forth by students who participated in the Greene County Envirothon competition regardless of their choice of study.

For additional information regarding the Greene County Envirothon or the Greene County Envirothon Continuing Education Scholarship, contact Lisa Snider or Jared Zinn at (724)-852-5278.

# Proposed Reserve Account using SCC Allocated UGW Funds

District NameLycoming County
Date Board took action on creating this proposed account:October 17, 2018 (Please provide a copy of district board minutes)
Name of Proposed Reserve Account:Lycoming Envirothon Education Scholarships
Purpose/description of account and the overall project:
Purpose is to recognize the winning team members from our local Envirothon competition. Each of the 5 winning team members will be eligible to receive a \$500 scholarship according to the guidelines adopted by the Conservation District Board of Directors. Funds for the scholarships will be kept in the Conservation District's "Special Projects" account which is primarily used for Environmental Education efforts. Recipients and disbursements will be tracked separately for reporting purposes.
Length of time you expect account to remain active:permanent (ex. 1 yr, 2 yr, permanent)
<u>Scholarship Accounts</u> Does your district have an established Scholarship policy?Yes if yes, please attach
<u>Separation Accounts</u> Do you have a district policy in regard to leave payout when staff retires or leaves district employment? If yes, please attach.
Do you expect staff retirements in the next 5 years? If so how many?
Other Type of Account: (Please describe)
Fiscal management policy relating to the account: How will you document expenditures in the account:According to existing accounting policies
Will the board take action on each transaction:       Yes
Who will have signature authority on the account: Continue our current requirement of 2 signatures for any District check/payment_(Currently Manager and 3 Directors are eligible to sign checks)(ex. Manager, chair)
Expected Size of Account:\$2,500/year
Will these funds be in an interest bearing account?Yes
Will this account be replenished and if so how: Tree Sales, UGWF, and Donations

# MINUTES OF LYCOMING COUNTY CONSERVATION DISTRICT BOARD MEETING October 17, 2018

CALL TO ORDER:	Chairperson Carl Schlappi called the meeting to order at 7 PM and asked for any public comment on the agenda items.		
DIRECTORS PRESEN	<u>T</u> :	Carl Schlappi Paul Wentzler Cameron Koons William Messersmith Joe Radley	Chairman Vice Chairman Director Director Director
DIRECTORS ABSENT		Bill Kahler Richard Mirabito	Director Commissioner/Director
ASSOCIATE DIRECTO	ORS PRESENT:		
ASSOCIATE DIRECTORS	<u>5 ABSENT</u> :	Larry Fry Paul Kremser Dorothea Lehman Michael Lehman Russ Reitz Chalmer VanHorn	Associate Director Associate Director Associate Director Associate Director Associate Director Associate Director
<u>STAFF PRESENT:</u>		Mark Davidson Carey Entz-Rine Tim Heyler Kellen Krape Matthew Long Rod Morehart Denise Moser	District Manager Watershed Specialist Ag Conservation Technician E&S Technician District Technician Chesapeake Bay Technician Secretary/Treasurer
COOPERATING AGEN	ICIES PRESENT:	Renee Carey Tim Davis Jaci Harner	Northcentral PA Conservancy NRCS DEP – Conservation & Restoration
COOPERATING AGENCI	<u>ES <i>ABSENT</i>:</u>	Josh Billings Emmett Kyler Ken Pochatko Mike Sherman Jason Smith Rodney Mee Mike Walker	Planning & Community Development PA Fish and Boat Commission Penn Dot Farm Service Agency Bureau of Forestry PA Game Commission SCC
INTRODUCTION OF Q	GUESTS: None i	n attendance.	

**INTRODUCTION OF GUESTS:** None in attendance.

<u>Action on June 2018 Minutes</u>: The motion was made by Paul Wentzler to approve the September 2018 Board minutes as presented. Seconded by Bill Messersmith. Motion passed unanimously.

# TREASURER'S REPORT

# ACCOUNT BALANCES 10/5/18

COUNTY APPROPRIATION (balance remaining)	\$ 1,325.29
SPECIAL PROJECTS CHECKING/SAVINGS	\$ 77,302.50
SPECIAL PROJECTS INVEST	\$ 16,508.98
UGWFA/ACT 13	\$270,885.53
CLEAN WATER CHECKING/SAVINGS	\$289,900.45

CHESAPEAKE BAY COST SHARE CHECKING/SAVINGS	\$ 93.83
CHESAPEAKE BAY INVEST	\$ 8,777.16
CHESAPEAKE BAY INTEREST CHECKING/SAVINGS	\$ 8,921.42
NUTRIENT MGT/ACT 6 CHECKING/SAVINGS	\$ 4,065.29
WATERSHED SPECIALIST CHECKING/SAVINGS	\$ 2,142.67
GRAVEL ROADS CHECKING/SAVINGS	\$787,643.29
LOW VOLUME ROADS	\$200,813.74

Receiving no additional comments on the Treasurer's Report, it will be filed as part of the District audit

CORRESPONDENCE None.

**<u>COMMITTEE REPORTS</u>**: None.

OLD BUSINESS: None

#### **NEW BUSINESS:**

- <u>Garage Invoices from September 24<sup>th</sup> to October 17<sup>th</sup></u>: Centre Concrete \$5,472.50; Lezzer Lumber \$479.44. The motion was made by Joe Radley to approve payment of garage invoices as presented. Seconded by Paul Wentzler. Motion passed unanimously.
- <u>District Christmas Dinner</u>: Wednesday, December 19<sup>th</sup> at Silver Thorn Tavern, Hughesville.
- <u>Nutrient Management Plan for Noah & Travis Martin CAFO Cogan House Township</u>: **The motion** was made by Joe Radley to approve the Martin's Nutrient Management Plan as presented. Seconded by Bill Messersmith. Motion passed unanimously.
- <u>2019 Goals & Objectives</u>: The motion was made by Bill Messersmith to approve the 2019 Goals & Objectives as presented. Seconded by Joe Radley. Motion passed unanimously.
- 2018/19 Traditional D&GR Amendment to Moreland Twp Contract W.A. Rider \$2,500 (Up Size U Drain size). The motion was made by Paul Wentzler to approve the amendment as presented. Seconded by Joe Radley. Motion passed unanimously.
- Third Strike letter for Daniel Kauffman in regards to not having an approved Nutrient Management Plan refer to note under Tim's section.

# **STAFF REPORTS**

#### **CONSERVATION DISTRICT MANAGER'S REPORT**

**Mark Davidson** 

(In addition to his written report) Mark reviewed his report and answered questions.

Mark presented two items for the Board's review and approval: 1. the Proposed Reserve Account using SCC Allocated UGW Funds and. Scope of Work for Unconventional Gas Well Fund Special Project (Conservation District Fund Allocation Program). Copies of these documents were distributed to the Directors. The motion was made by Joe Radley to approve the both the Proposed Reserve Account and Scope of Work as presented. Seconded by Paul Wentzler. Motion passed unanimously.

Tim Heyler recommended the Fry Bros Farm for recognition as 2018 Cooperator of the Year. The Board was in agreement.

Mark and Tim participated with the Farm Day coordinated by Ben Hepburn. This year both the Loyalsock and Montoursville 4<sup>th</sup> grade students participated. Mr. Hepburn is the driving force behind this program

# **STAFF REPORTS** (continued)

and does an excellent job with activities involving the students. Both Mark and Bill Messersmith complimented Tim on his use of the drone which was a big hit with the students. Great job Tim!

<u>CONSERVATION DISTRICT TECHNICIAN'S REPORT</u> (In addition to his written report)	Matthew Long
Matt reviewed his report and answered questions.	
<u>E&amp;S TECHNICIAN'S REPORT</u> (In addition to his written report)	Kellen Krape
Kellen reviewed his report and answered questions.	
CHESAPEAKE BAY TECHNICIAN'S REPORT (In addition to his written report)	Rod Morehart
Rod reviewed his report and answered questions.	

#### AG CONSERVATION TECHNICIAN'S REPORT

(In addition to his written report) Tim reviewed his report and answered questions.

Tim asked for the Board for approval to purchase a new computer to obtain the necessary USDA links for processing conservation plans. The previous computer they had stopped working in May and they have been using a loaner from USDA. A new computer, screen, all software for the required programs and a five year warranty will cost up to \$1,500. The computer is essential for processing conservation plans. The motion was made by Joe Radley to approve the purchase of the computer, programs and a accessories as presented up to the cost of \$1,500. Seconded by Bill Messersmith. Motion passed unanimously.

The mentioned notification to Dan Kauffman is on hold at this time due to Tim receiving paperwork stating Mr. Kauffman has an approved Nutrient Management Plan. Currently this is under review and not confirmed as approved. After a discussion, it was felt the "Third Strike" letter should be approved and ready to mail to Mr. Kauffman if the current documentation is found not to meet regulations of the nutrient management plan by the deadline of November 5, 2018. Tim will review the Board's decision with Mike Walker of SCC to ensure proper processing of this issue and is in accordance with the policy. **The motion was made by Cameron Koons to approve sending the "third strike" letter only if Mr. Kauffman has not met the Nutrient Management Plan requirements by stated deadline. Seconded by Paul Wentzler. Motion passed unanimously.** 

# WATERSHED SPECIALIST'S REPORT

**Carey Entz** 

**Tim Heyler** 

(In addition to her written report) Carey reviewed her report and answered questions.

The Mosquito monitoring program through DEP ended at the end of September. Unfortunately, Rita Groy will not be back next summer to assist with the program, so we are looking for a candidate to fill this commitment.

Carey mentioned she will be participating in a deer tick research study for DEP this October 2018. After instruction on how to collect the ticks, she is to collect 50 ticks within a stated timeframe and provide them to DEP for this research study.

# **OTHER REPORTS**

# <u>NRCS</u>

# Tim Davis

This report highlights NRCS assistance to cooperators and communities in Lycoming County for September -October 2018. If you have questions or would like more specific information concerning the report please contact me at 570-433-5101 ext 3.

Technical Assistance

- Several site visits conducted with landowners interested in NRCS Assistance
- One CRP- Grasslands contract completed
- NRCS is currently completing site inspections for *existing* CREP contracts set to expire in 2020
- CREP assistance is currently on-hold as FSA is not allowed to process any *new* CREP applications at this time, effective Oct. 1, 2018

Conservation Plans

- For FY2018 NRCS Lycoming will continue to work with landowners on completing Conservation Plans
- Conservation planning initiated on farm in Moreland Township

# Conservation Programs

- Applications for EQIP-FY19 Round 1 are due Friday, Oct.19th.
- NRCS has authorized EWP, and landowners had until *Monday, Oct. 15<sup>th</sup>* to submit applications
  - o 30 calls/contacts were received for EWP evaluation/assistance
  - Damage Survey Report (DSR) site visits conducted Oct. 9<sup>th</sup> & 12<sup>th</sup> resulting in 7 eligible sites
  - o Design work and background paperwork for EWP sites has been initiated

# Additional News

- Food Security Act compliance site inspections have been completed by NRCS Mill Hall staff within Lycoming County resulting in 2 variances being initiated
- October is Disability Awareness Month
- October 30, 2018 for our Annual Cover Crop and Soil Health Workshop and Tour, with registration starting at 9:30am @ The Big Flats Municipal Campus (476 Maple Street Big Flats, NY 14814).
- The second Northeast Cover Crops Council Conference will be held at the Ramada Inn, State College, PA, on Nov. 15 with a field day on Nov. 16, 2018.

Respectfully Submitted,

# Ryan D. Koch

Ryan D. Koch District Conservationist Farm Bill Program Key

ACEP=Agricultural Conservation Easement Program AMA= Agricultural Management Assistance CREP= Conservation Reserve Enhancement Program CSP=Conservation Stewardship Program EQIP= Environmental Quality Incentive Program EWP=Emergency Watershed Protection RCPP=Regional Conservation Partnership Program WRE=Wetlands Reserve Easement

# NORTHCENTRAL PENNSYLVANIA CONSERVANCY

# **Renee Carey**

Renee mentioned stream construction projects have wrapped up for this year. Two of the projects are rescheduled to next year due to the amount of rain/flooding this year.

NPC has funding from a court settlement to improve the water quality of Lycoming County. Based on projects Carey Entz had provided a project to lower the earthern berm at the former Game Farm in Proctor, along Plunketts Creek. This would help reduce the erosion along the Creek, re-connect the Creek with its floodplain to improve ecological function, and help reduce flooding for the downstream residents. Renee' Carey reported U.S. Fish and Wildlife Service will be surveying at the former Game Farm at Proctor soon

OTHER REPORTS (continued)

<u>DEP – CONSERVATION, RESTORAT</u>	ION and INSPECTION	Jaci Harner
Jaci reviewed her report and answered	questions.	
MUNCY CREEK WATERSHED ASSO	CATION (not present)	Chalmer VanHorn
FARM SERVICE AGENCY	(not present)	Michael Sherman
<u>PENN DOT</u>	(not present)	Ken Pochatko
<u>PLANNING &amp; ZONING</u>	(not present)	Josh Billings

**ADJOURNMENT:** Adjournment was at 8:45 PM by Chairperson Carl Schlappi.

Respectfully submitted,

Denise Moser, Administrative Specialist

# **ATTACHMENT 4**

# Proposed Building Reserve Account using SCC Allocated UGW Funds

District NameSusquehanna County
Date Board took action on creating this proposed account:August 16, 2018 (Please provide a copy of district board minutes)
Name of Proposed Reserve Account:Building
<b>Purpose/description of account and the overall building project:</b> Funds will be used for the construction of a new office building. Construction has started and is expected to be completed near the end of 2018.
Length of time you expect account to remain active:~ 5 years until loan paid off (ex. 1 yr, 2 yr, permanent)
Who owns the property:SCCD
If the property is not owned by the District, how long of a lease do you have:
Will the District have a mortgage and how long will it be for after the building is complete:we have a 20-year loan, but we anticipate having it paid off in a much shorter time frame
<u>Fiscal management policy relating to the account:</u> How will you document expenditures in the account:Quick Books
Will the board take action on each transaction:Yes
Who will have signature authority on the account: 2 signatures required(ex. Manager, chair)
Expected Size of Account:less than \$350K

Will this account be replenished and if so how: \_Will be drawn down during construction \_\_\_\_\_

# SUSQUEHANNA CONSERVATION DISTRICT Board Meeting DATE: Thursday August 16, 2018 Place: 88 Chenango St. START TIME: 8:30 A.M. Approved

Dirt & Gravel							
Township	In kind	Applied for	Offered				
Dimock	\$ 23,000.00	\$ 213,980.00	\$ 200,000.00				
Apolocon	\$ 24,000.00	\$ 115,826.00	\$ 60,000.00				
Liberty	\$ 24,000.00	\$ 160,000.00	\$ 130,000.00				
Springville	\$ 12,000.00	\$ 21,460.00	\$ 21,460.00				
Uniondale	\$ 7,200.00	\$ 72,800.00	\$ 72,800.00				
Forest Lake	\$ 134.272.00	\$ 116.339.00	\$ 100.000.00				
Choconut	\$ 8,700.00	\$ 78,438.00	\$ 70,000.00				
Auburn	\$ 2,600.00	\$ 120,821.00	\$ 60,000.00				
Gibson	\$ 31,000.00	\$ 131,500.00	\$ -				
Brooklyn	\$ 21,000.00	\$ 175,000,00	\$ -				
Franklin	\$ 8,700.00	<u>    67,450.00</u>	\$				
Gibson	\$_31,000.00	\$ 131,500.00	\$ -				
Total			\$ 714,260.00				

LVR Forest

Lake \$ 12,750.00 \$ 17,956.00 \$ 17,956.00

#### <u>UGWF money allocation</u>

• Brian motions to allocate the following UGWF funds \$16,350 for special projects and \$89,015.97 for the building fund Jim Kessler seconds - motion passed

#### • Harford fair work shift sign-up

• Passed around sign-up sheet

#### • Need to open LVR account

· Bill Bayne motions to open a LVR bank account Andrew seconds - motion passed

#### <u>Review well driller bids</u>

- Karp Bid: \$9,243 included grout in bid
- Bell Bid: \$9,163 plus \$10 per foot for grouting
- Brian motions to select Karp's well drill bid of \$9,243 Jim Kessler seconds motion passed



## COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

DATE:	November 1, 2018
то:	Members State Conservation Commission
FROM:	Johan E. Berger Financial Administration, Certification & Conservation District Programs
RE:	Spotted Lantern Fly Control Program

# **Background**

On September 22, 2014, the Pennsylvania Department of Agriculture (Department), in cooperation with the Pennsylvania Game Commission, confirmed the presence of the Spotted Lanternfly in Berks County, Pennsylvania, the first detection of this non-native species in the United States.

Upon determination that the potential impact to Pennsylvania's agricultural economy and natural resources was great, the Department issued a quarantine with the intent to restrict the movement of the Spotted Lanternfly on November 1, 2014. Counties in eastern Pennsylvania are under limited movement quarantine as the Department and its federal, state, local and non-governmental cooperators develop a strategy to eliminate this pest from the Commonwealth. The quarantine zone includes Berks, Bucks, Carbon, Chester, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Philadelphia, Schuylkill counties.

# **Current Activities**

The Department's Bureau of Plant Industry (PDA-BPI), has received a federal grant of \$500,000 to support detection and control efforts of the Spotted Lanternfly (SLF) in the quarantine zone. PDA-BPI, in cooperation with the State Conservation Commission extended an invitation to conservation districts in the quarantine zone to submit a proposal for funding to support conservation district's SLF education and outreach efforts; and detection and control activities they may facilitate and perform in their county.

Eight (8) conservation district: Berks, Bucks, Lancaster, Lehigh, Monroe, Montgomery, Northampton and Schuylkill submitted proposals totaling over \$467,000 for funding to support costs associated with conducting education/outreach events and SLF detection and control activities. Proposal activities range from: public workshops and one-on-one education and outreach events training the public on the identification, transport prevention and proper control methods of SLF to identification and prioritization of infested sites for treatment; coordination of SLF control and host species (*Ailanthus altissma*) management activities. Conservation districts will be working with individual landowners, businesses and municipalities to assist in identifying and prioritizing treatment of infestation sites and advising on control methods, in coordination with PDA and USDA. Examples of prioritized areas may include: heavily infested private or agricultural tracts; public access areas (parks and recreational areas) and transportation sites or routes in the quarantine zone.

Conservation districts have been advised to coordinate education and outreach activities with partner agencies and organizations such as Penn State Cooperative Extension, local recreation and environmental groups and agricultural organizations. District have also been advised to coordinate identification of infestation and control activities with field staff from PDA and USDA to prevent cross-over of control and treatment activities and maximize the use of resources in the quarantine zone.

Funding for the Spotted Lanternfly Control Program project is available up to June 30, 2019.

November 6, 2018

To: Members State Conservation Commission

From: Karl G. Brown Executive Secretary

RE: Dirt and Gravel Road Program Update

Additional information pertaining to this agenda item will be provided at our November 13, 2018 Commission Meeting.

November 6, 2018

To: Members State Conservation Commission

From: Karl G. Brown Executive Secretary

RE: Chesapeake Bay Program Update

Additional information pertaining to this agenda item will be provided at our November 13, 2018 Commission Meeting.



# COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

DATE: October 25, 2018

TO: State Conservation Commission Members

- FROM: Frank X. Schneider, Director Nutrient and Odor Management Programs
- THROUGH: Karl G. Brown Executive Secretary
- RE: Nutrient and Odor Management Programs Report

The Nutrient and Odor Management Program Staff of the State Conservation Commission offer the following report of measurable results for the time-period of September / October 2018.

For the months of September and October 2018, staff and delegated conservation districts have:

- 1. Odor Management Plans:
  - a. 9 OMPs in the review process
  - b. 6 OMPs approved
  - c. 0 OMP approvals rescinded
- 2. Managing thirteen (13) enforcement or compliance actions, currently in various stages of the compliance or enforcement process.
- 3. Worked with legal counsel on one (1) separate Environmental Hearing Board (EHB) cases.
- 4. Worked with DEP and conservation districts on NM reporting in Practice Keeper.
- 5. Continue to daily answer questions for NMP and OMP writers, NMP reviewers, delegated Conservation Districts, and others.
- 6. Assisted DEP with various functions and as workgroup members in Federal and State settings for the Chesapeake Bay Program.
- 7. Facilitated discussions with the NMAB subcommittee and other parties on the proposed changes for P management in NBS that is open for public comment

- 8. Continue to receive and work thru opened public comments periods for the following Guidance Documents:
  - a. Nutrient Management Technical Manual
  - b. Nutrient Management and Manure Management Administrative Manual
  - c. Odor Management Program Guidance and Technical Manual
  - d. Odor Management BMP Guide



## **COMMONWEALTH OF PENNSYLVANIA** STATE CONSERVATION COMMISSION

DATE: October 24, 2018

TO: Members State Conservation Commission

FROM: Karl J. Dvmond Karl J. Dymond State Conservation Commission

November 2018 Status Report on Facility Odor Management Plan Reviews **SUBJECT:** 

# **Detailed Report of Recent Odor Management Plan Actions**

In accordance with Commission policy, attached is the Odor Management Plans (OMPs) actions report for your review. No formal action is needed on this report unless the Commission would choose to revise any of the plan actions shown on this list at this time. This recent plan actions report details the OMPs that have been acted on by the Commission and the Commission's Executive Secretary since the last program status report provided to the Commission at the September 2018 Commission meeting.

# **Program Statistics**

Below are the overall program statistics relating to the Commission's Odor Management Program, representing the activities of the program from its inception in March of 2009, to October 24, 2018.

The table below summarizes approved plans grouped by the Nutrient Management Program Coordinator Areas and by calendar year.

	Central	NE/NC	SE/SC	West	Totals
2009	7	6	28	1	42
2010	5	7	25	2	39
2011	10	11	15	2	38
2012	9	16	16	2	43
2013	10	11	38	3	62
2014	13	16	44	2	75
2015	16	15	61	2	94
2016	19	16	59	4	98
2017	25	24	44	3	96
2018	11	6	38	1	56
Total	125	128	368	22	
Grand Total					643

As of October 24, 2018, there are six hundred forty-three **approved** plans and/or amendments, eight plans have been **denied**, seventeen plans have been **withdrawn** without action taken, fifty-three plans were rescinded, and nine plans and/or amendments are going through the plan review process.

# **OMP Status Report**

Action	OMP Name	County	Municipality	Species	AEUs	OSI Score	Status	Ammended
8/24/2018	Zimmerman, Alvin	Lancaster	E Earl Twp	Cattle	0.00	18.0	Approved	
8/29/2018	Kauffman, Jacob	Lancaster	Drumore Twp	Cattle	0.00	17.6	Approved	
8/29/2018	Saylor, Jason - Witmer Farms	Perry	Liverpool Twp	Pullets	47.64	13.7	Approved	Α
9/6/2018	Smucker, Aaron	Northumberland	Rockefeller Twp	Broilers	127.84	44.2	Approved	
9/10/2018	JM Hatchery LLC	Lancaster	Earl Twp	Pullets	22.04	43.8	Approved	В
9/18/2018	Light, Jacob - Edris Farm	Lebanon	Bethel Twp	Broilers	246.85	34.4	Approved	
10/10/2018	Foster, Tyler C	Schuylkill	W Penn Twp	Broilers	192.60	36.3	Approved	
10/12/2018	Kreider, Noah W & Sons, LLP - Manheim Farm	Lancaster	Penn Twp	Layers	7878.85	41.1	Approved	D
10/15/2018	Kreider, Noah W & Sons, LLP - Risser Farm	Lancaster	Penn Twp	Pullets	315.70	45.9	Approved	В

As of October 24, 2018



## COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

DATE: November 1, 2018

**TO**: State Conservation Commission

- **FROM**: Johan E. Berger Financial, Certification and Conservation District Programs
- **SUBJ**: 2018 "To-date" Program Accomplishments: Nutrient and Odor Management Specialist; Commercial Manure Hauler & Broker Certification programs

# **Certification Program Summary**

State Conservation Commission staff facilitate training and certification programs for persons interested in 'commercial' or 'public' certification in order to develop or review odor management or nutrient management plans under the Act 38 *Facility Odor Management or Nutrient Management* programs. Training is also facilitated for commercial manure haulers and brokers seeking certification under the Act 49 *Commercial Manure Hauler and Broker Certification* program.

# Program Accomplishments (January 1, 2018 to September 30, 2018)

- The summer/Fall cycle for the Nutrient Management Specialist certification program began in August 2018. Twelve (12) individuals began coursework towards certification (total for 2018 = 29). The spring certification cycle for the Commercial Manure Hauler and Broker certification program also began in September 2018. Fifteen (15) haulers/brokers completed their coursework and are now certified (total for 2018 = 44).
- 2. Completed twenty-five (25) reviews of nutrient management plan reviews for certification requirements. *Note: This is an internal review conducted on NMPs under review by public review specialists seeking final certification.*
- 3. Issued the following licenses to individuals who successfully completed certification and/or continuing education requirements for license renewals:

Total licenses monitored and maintained by Commission staff on behalf of PDA:

- 4. Approved credits for eligible continuing education programs planned to November 30, 2018:
- 5. Program staff performed twenty-eight (28) site inspections regarding record keeping requirements under the Commercial Manure Hauler and Broker Certification Program.



# COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

DATE: November 1, 2018
TO: State Conservation Commission
FROM: Johan E. Berger Financial, Certification and Conservation District Programs
SUBI: 2018 Program Accomplishments

SUBJ: 2018 Program Accomplishments Resource Protection and Enhancement Program (REAP)

# **REAP Program Summary**

The Resource Enhancement and Protection (REAP) Program allows farmers, businesses, and landowners to earn state tax credits in exchange for the implementation of conservation Best Management Practices (BMPs) on Pennsylvania farms. REAP is a "first-come, first-served" program – no rankings. The program is administered by the State Conservation Commission and the tax credits are awarded by the Pennsylvania Department of Revenue. Eligible applicants receive between 50% and 75% of project costs in the form of State tax credits for up to \$150,000 per agricultural operation.

# **Program Accomplishments**

The FY2018 REAP application period opened on August 1, 2018. Below is a summary of the FY2017 round of REAP applications and a summary of the FY2018 round, to date (1.) and, a summary of REAP activities from January 1, 2018 to September 30, 2018 (2). Approximately twelve (12) applications received in program year 2017, representing approximately \$1.1 million, could not be considered under the FY2017 allocation. These applications will be held for consideration in the FY2018-19 round of applications for REAP.

Applic	ations	Total Cost	Other Public	Other Public REAP Requests		
			Funds			
2017	319	\$26.2 million	\$4.9 million	\$11.6 million	\$3.7 million	
2018	113	\$4.22 million	\$872,300	\$1.16 million	TBD	
a) <u>REAP</u>	a) <u>REAP Request – project types</u> <u>FY2017</u>					
1) Proposed\$3.00 million					\$446,000	
2)	Comple	ted Projects	l Projects\$7.70 million \$714,			
b) No-Ti	b) No-Till Equipment\$3.80 million \$521,00					
c) Structural BMPs \$6.2 million \$						
d) Plans (Ag E&S, Conservation, Manure Management, Nutr. Mgmt.)\$178,500					\$20,000	
e) Low Disturbance Residue Management Equipment\$283,000					\$0	
f) Preci	f) Precision Ag Equipment\$140,000 \$57,000					

# (1.) <u>FY 2017 & FY 2018</u>
# (2.) January 01, 2018 - September 30, 2018

1.	Tax Credits issued to applicants for completed projects	\$7.05 million
2.	Number of BMPs completed associated with issued tax credits	
3.	Number of new tax credit 'sales' completed	. 149 sale transactions
4.	Value of new tax credits processed through 'sales'	\$2.99 million
5.	Number of site inspections conducted on completed projects	
6.	Educational and promotional activities included one press release:	
	8 speaking events	
	4 mass email	

3 Press release



COMMONWEALTH OF PENNSYLVANIA STATE CONSERVATION COMMISSION

Written Report

Date: October 29, 2018

# RE: Dirt, Gravel, and Low Volume Roads Program (DGLVRP) Update

**QAQC Visits** – Since Jan 1 2018 staff has completed 19 Quality Assurance/Quality Control (QAQC) visits this year. 4 additional QAQC visits are scheduled. Staff is on schedule to meet the goal of visiting every county in a three-year cycle.

<u>Annual Workshop</u> – Annual Maintenance Workshop was held in Indiana, PA on September 18-20. The event drew attendance from 49 of the states 65 DGLVR participating Conservation Districts, and included concurrent classroom sessions, a GIS training, an administrative training, and visits to a variety of field sites including the in-progress installation of a 18' aluminum arch pipe.

3/28-29	Butler/Allegheny	94 attendees
4/3-4:	Centre	56 attendees
4/10-11:	Venango	88 attendees
4/17-18:	Lancaster	47 attendees
5/1-2:	Luzerne	56 attendees
5/9-10:	Cumberland	59 attendees
5/22-23:	Somerset	48 attendees
6/6-7:	Potter	39 attendees
6/13-14:	Blair	22 attendees
8/1-2:	Montgomery	15 attendees

## Environmentally Sensitive Maintenance training (ESM)

8/21-22:	Wayne	25 attendees
10/2-3:	Bedford/Fulton	55 attendees
10/17-18:	Lycoming	48 attendees
11/7-8:	Clearfield	111 registered

# Other DGLVR activities since Jan 1, 2017

<u>Boot Camps:</u> Two "Environmentally Sensitive Road Maintenance Boot Camps" were held in State College in July 2018. These three-day training were directed at new hires from Conservation Districts. Most of the training was held in the field and featured a comprehensive road diagnostic, active cross pipe installation, basic surveying, active DSA placement, and discussion of several stream crossing replacements.

<u>Stream Crossing Trainings</u>: Four "Stream Crossing Replacement Trainings" were held around the State in summer 2018. These one-day trainings included approximately two hours of classroom instruction followed by field exercises involving the surveying and discussion of several completed and potential stream crossing replacements.

<u>Webinars</u>: A total of 15 webinars for conservation districts have been held to date in 2018. Nine of those webinars related to the GIS and quarterly reporting changes, while the remaining 6 were on other program-specific topics.

<u>Project Sharing Sessions</u>: Four Project Sharing Sessions were held to allow conservation districts to share successful projects with other districts as well as Center and SCC staff. The projects presented here were shared with a webinar for other conservation districts, were used in the Program's 2017 Annual Report, and will help the Center to update the ESM training this winter.

<u>Assessment</u>: Three field trainings were held this fall for conservation districts on how to assess unpaved roads and identify areas where they are impacting streams.

Technical Assistance: Approximately 160 visits

Quarry Visits: Approximately 90 visits

<u>Migration to On-Line quarterly reporting system</u>: An on-line reporting system was developed. Conservation districts participating in the program are now required to submit a quarterly report. This will help both Commission staff as well as District staff keep better track program spending and program activities.



# BUILDING BRIDGES

Farmers\*Municipalities\*Citizens Conservation Districts\*Agribusiness

To:	Members	October 31, 2018
	State Conservation Commission	
From:	Beth Futrick	
	Agriculture/Public Liaison	
Through:	Karl G. Brown, Executive Secretary	
	State Conservation Commission	
Re:	Ombudsman Program Update – Southern Alleghenies Region	

#### Activities: September-October 2018

- Organized a pasturewalk held in Huntingdon County on September 22 (Shade Gap, PA).
  - Secured funding through relevant sponsors
    - Developed promotional outreach
    - o Assisted with coordinating speakers and agenda/topics
    - Applied for GLC funding to support this event
- Organized the 2018 Farm2Fork dinner in partnership with Huntingdon County Conservation District
  - Secured funding through local sponsors
  - Developed promotional outreach
  - o Met with local food caterer and wineries
- Meeting with CDE,/CBE, PSU planning 2018-2019 PAOneStop training
  - Currently working with 13 conservation districts to assist with coordinating and hosting this year's ag e/s workshops.
     Assisting with promotional outreach
  - Developing a local food system team to host a regional food system training in December
    - Developing an outreach plan to secure other local food practitioners
      - Seeking funding (grants/sponsors)
- Preparing to install a multi-functional riparian buffer at Natureworks Park (BCCD property)

## Meetings/Trainings/Events

- Farm2Fork Dinner Huntingdon County September 8
- o Blair County Penn State Committee meeting September 17
- Dennie Cramer pasturewalk in Huntingdon County September 22
- Site visit @ Natureworks Park preparing for invasive control at the multifunctional riparian buffer October 4
- Indiana County Local Food Local Places meeting October 9-10
- Meeting with Altoona Curve Baseball manager to plan a new farmers market at The Curve October 12
- o Presentation to a PSU-Altoona class "Food History" What local food is available in Altoona, PA October 18
- Presentation to Blair County Garden Club Rain Gardens, Green Space, and Urban Ag October 22
- Greater Pittsburgh Local Food meeting October 25
- Southern Alleghenies RC&D meeting October 26
- Meeting with Blair County Community Action to plan for their new community gardens in Altoona October 30

#### Conflict Issues/Municipal Assistance -

- Clinton and Lycoming Counties: assisting Dr. Machtinger with fly data from poultry operations.
- Northumberland County fly complaint

#### **Reports & Grant Applications**

## --BCCD Board Report

--Final Report for GLC grant- Shade Gap pasturewalk. Seventy producers attended to learn about extending the grazing season



# BUILDING BRIDGES

Farmers \* Municipalities \* Citizens Conservation Districts \* Agribusiness

То:	Members State Conservation Commission	November 13, 2018		
From:	Shelly Dehoff Agriculture/Public Liaison			
Through:	Karl G. Brown, Executive Secretary State Conservation Commission			
Re:	Agricultural Ombudsman Program Update			
<ul> <li>Activities: Since mid-September 2018, I have taken part or assisted in a number of events, including the following:</li> <li>Coordinated details for 9 events during Lancaster County Ag Week in October 2018</li> <li>included coordinating all details for Denim &amp; Pearls dinner event</li> <li>attended most of the 9 events during Ag Week</li> </ul>				

- participating with York Co. Stormwater Authority Implementation Plan "Outreach/Communications" workgroup; including attending the second Public Outreach meeting, and planning the 3<sup>rd</sup> Public Outreach meeting
- continuing role as Cover Crop Champions Coordinator through National Wildlife Federation; short term grant
  - coordinating details between 2 champion groups and NWF staff in Michigan; doing publicity and promotion of the 2 champion groups podcasts and events; writing articles after interviewing farmers
- working with Center for Dairy Excellence and PSU to provide more Ag E&S Plan Writing workshops in PA
- participated in monthly Mushroom Farmers of PA meetings
- met with Beth Futrick to discuss goals, programs and events for this fiscal year
- attended Soil Health field day
- Serve as Chair of the South Central Task Force Agriculture Subcommittee
- Attended and assisted at Lancaster Co. Agriculture Council meetings

# Local Government Interaction: I have been asked to provide educational input regarding agriculture:

Chester Co-on-going attendance at meetings related to Mushroom Phorid Flies with Mushroom Farmers of PA

# Moderation or Liaison Activities: I have been asked to provide moderation or liaison assistance with a particular situation: None currently

# Research and Education Activities: None currently

Fly Complaint Response Coordination: I have taken complaints or am coordinating fly-related issues in:

Perry County—outbreak covering many square miles and 40+ complaints

**Perry County**—separate but possibly related fly complaint from earlier one in Perry Co **Lebanon County**—new fly complaint