

Nutrient Management Plan

Prepared For

Operator's Name

Operator's Address

Operator's Telephone Number

Prepared By

Nutrient Management Specialist's Name

Nutrient Management Specialist's Program Certification Number

Date of Plan Submission

Date of Plan Approval

Date(s) of Plan Updates (not requiring board action)

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Nutrient Management Plan Agreement & Responsibilities

Plan Implementation Requirements

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

- Pennsylvania Act 38 of 2005 _____ CAO _____ VAO (check one)
- Pennsylvania CAFO (Concentrated Animal Feeding Operation) program
- NRCS (Natural Resources Conservation Service) 590 Nutrient Management Standard
- 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.

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

- 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.**

Specialist Signature

The information contained in this plan is accurate to the best of my knowledge. This plan has been developed in accordance with the criteria established for the program(s) indicated above.

Specialist Signature _____

Date _____

Operator Agreement

All the information I provided in this nutrient management plan is accurate to the best of my knowledge and I will implement the practices and procedures outlined in the nutrient management plan in order to protect water quality and address the nutrient needs of the crops associated with the operation. If I use a commercial hauler or broker, that hauler/broker will be certified.

Operator's Signature _____

Operator's Title _____

Date _____

Winter Manure Spreading Procedures

List the crop management units where winter application is either planned or restricted, the manure application procedures to be used including application setbacks, the ground cover and conditions of the field during application, and the type of manure planned to be applied.

In-Field Manure Stacking Procedures

Manure must be applied to the field within 120 days of stacking or the stacks 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.

Additional CAFO Requirements

Manure Management and Stormwater BMP Implementation Summary

Best Management Practice	NRCS Practice Code (if applicable)	BMP Location	Implementation Season & Year

Proposed Manure Storage Description

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

Description of Planned Alternative Manure Technology Practices

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

Manure Summary Table

Manure Source	Generated On Farm	Used On Farm	Exported Off Farm

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 10 of this plan.

Appendix 1
Operation Information

Operation Description (number of the various animal types; acreage of cropland, hayland and pastureland; acreage of farmstead; crop rotation)

County(s)

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

Notation of Special Protection Waters

Operation Acres

Total Acres

Total Acres Available For Nutrient Application Under Operator's Control

Owned

Rented

Names & Addresses of Owners of Rented or Leased Land

Animal Equivalent Units

Animal Equivalent Units Per Acre

Manure Storages & Capacity (type of storage description, dimensions, useable capacity, freeboard, top or bottom loaded, type of bedding, dimensions and description of contributing runoff area, description of wastewater additions, types and amounts of bedding)

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)

Appendix 2

Operation Maps

Operation maps required in the plan include a topographic map drawn to scale, identifying the land included in the plan. Additional maps or aerial photographs must clearly identify: operation boundaries, field identification, acreage and boundaries, soil types and slopes with soil legend, manure application setback areas and buffers and associated landscape features, 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 or within the operation.

Appendix 3
Manure Generation Calculations

Manure Group Identification						
Description: Site & Season Applied						
Animal Group						
Animal Number						
Animal Weight ¹						
Manure Group AUs						
Manure Group AEU's						
Daily Manure Production ²						
Total Days Manure Produced						
Total Manure Produced ²						
Total Bedding ^{2,3}						
Total Rainfall and Runoff ^{2,4}						
Total Washwater ^{2,5}						
Days On Pasture						
Hours Per Day On Pasture						
Total Uncollected Manure						
Total Manure Collected Per Animal Group						
Total Manure Collected Per Manure Group						

¹ Document if Agronomy Facts 54 is not used.
² Not required if using manure production information from farm records.
³ Document type of bedding used, amount used per day, days bedding used, etc. Bedding volume added to liquid manures must be adjusted using established density factors.
⁴ Document surface dimensions of storage surface area, dimensions of area draining into the storage, etc. Use the Rainfall Additions Worksheet for these calculations.
⁵ Document gallons used per period, etc.

Rainfall Additions Worksheet

Net Rainfall Directly On Storage Facility

Use the appropriate rainfall values from the "Directly on Storage" section of the table Rainfall, Runoff and Evaporation Data for Pennsylvania Counties for the county where the farm is located. Be sure to follow the guidelines in that table to determine whether to use the "No Evaporation" or "With Evaporation" rainfall numbers.

Month						
Net Rainfall (in)						

Month						
Net Rainfall (in)						

Net Runoff Directed To Storage Facility

Use the appropriate runoff values from the "Directed to Storage" section of the table Rainfall, Runoff and Evaporation Data for Pennsylvania Counties for the county where the farm is located. Be sure to follow the guidelines in that table to determine whether to use the "Paved" or "Unpaved" runoff numbers.

Month						
Net Runoff (in)						

Month						
Net Runoff (in)						

Collection Period _____

Rainfall Directly On Storage		Rainfall Directed To Storage	
Net rainfall directly on storage	in.	Net runoff directed to storage	in.
	÷12		÷12
Converted to feet	ft.	Converted to feet	ft.
	X		x
Storage surface area	ft. ²	Runoff surface area	ft. ²
	=		=
Volume of water on storage	ft. ³	Volume of runoff to storage	ft. ³
	X 7.48		X 7.48
Gallons of water on storage	gal.	Gallons of runoff to storage	gal.
Total for the Period	(Rainfall on storage + Rainfall directed to storage)		gal.

Collection Period _____

Rainfall Directly On Storage		Rainfall Directed To Storage	
Net rainfall directly on storage	in.	Net runoff directed to storage	in.
	÷12		÷12
Converted to feet	ft.	Converted to feet	ft.
	X		x
Storage surface area	ft. ²	Runoff surface area	ft. ²
	=		=
Volume of water on storage	ft. ³	Volume of runoff to storage	ft. ³
	X 7.48		X 7.48
Gallons of water on storage	gal.	Gallons of runoff to storage	gal.
Total for the Period	(Rainfall on storage + Rainfall directed to storage)		gal.

Collection Period _____

Rainfall Directly On Storage		Rainfall Directed To Storage	
Net rainfall directly on storage	in.	Net runoff directed to storage	in.
	÷12		÷12
Converted to feet	ft.	Converted to feet	ft.
	X		x
Storage surface area	ft. ²	Runoff surface area	ft. ²
	=		=
Volume of water on storage	ft. ³	Volume of runoff to storage	ft. ³
	X 7.48		X 7.48
Gallons of water on storage	gal.	Gallons of runoff to storage	gal.
Total for the Period	(Rainfall on storage + Rainfall directed to storage)		gal.

Appendix 7
Phosphorus Index

The current Pennsylvania Phosphorus Index Spreadsheet or paper worksheet for each field that required Part B of the P Index (Appendix 6 Section 1) must be included here. Preliminary P Index calculations that you might make to decide on an appropriate management strategy should not be included here.

Appendix 8
Manure Management

Date of Site Evaluation _____

Statement Documenting Areas Evaluated During Site Evaluation

Identification of Inadequate Manure Management Practices and Conditions

BMPs to Address Manure Management Problem Areas

Appendix 9
Stormwater Control

Date of Site Evaluation _____

Statement Documenting Areas Evaluated During Site Evaluation

Identification of Critical Runoff Problem Areas

BMPs to Address Critical Runoff Problem Areas

Appendix 10
Importer/Broker Agreements & NBSs

Appendix 11

Supporting Information & Documentation

Attach information and documentation necessary to support plan content not included elsewhere in the plan or appendices. Examples include, but are not limited to, documentation of animal weights if Agronomy Facts 54 is not used, calculations for irrigation rates, or calculations for manure residual N if using Table 1.2-15.

Appendix 12

Additional Requirements For NRCS 590 Standard
