

MANURE MANAGEMENT PLAN WORKBOOK CHECKLIST

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Note: regulations require all operations with crops or ACAs to also have an Agricultural Erosion and Sediment Control Plan meeting the requirements of 25 Pa. Code Chapter 102. Additional information can be obtained from the county conservation district.			
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MANURE MANAGEMENT PLAN WORKBOOK
Section 1 – General Information

DATE OF DEVELOPMENT
(See Workbook Instructions Page 3)

Date of Development: _____
Date of Update(s): _____

Note that the owner/operator is expected to evaluate the manure management plan annually and update the plan when necessary to keep the plan consistent with operation and manure management practices.

CONTACT INFORMATION
(See Workbook Instructions Page 3)

Operation Name: _____
Name of Operator: _____
Name of Landowner(s): _____
Operation Physical Address: _____
City, State and Zip Code: _____
Operation Mailing Address: _____
City, State and Zip Code: _____
Phone Number (Home/Barn): _____
(Cell): _____
Email Address: _____

Manure Management Plan Preparer Contact Information
(if other than owner/operator)

Preparer Name: _____
Preparer Organization: _____
Physical Address: _____
City, State and Zip Code: _____
Phone Number (Business): _____
(Cell): _____
Email Address: _____

MANURE MANAGEMENT PLAN WORKBOOK

OPERATION INFORMATION

(See Workbook Instructions on Page 3)

a. **Crop Rotations used on the Operation (use additional sheets as necessary):** _____

b. **Acres available for mechanical application of manure (excluding pasture):**

Owned: _____ Rented: _____

The term "Mechanical application" as used in this document means the application of manure by a person through any mechanical means such as a manure spreader, irrigation system, horse-drawn equipment, or a pitchfork. The term does not include direct application of manure by animals on pastures and/or in Animal Concentration Areas. Pasture Areas should only be noted once, in letter c.

c. **Pasture Areas:** Yes No

If yes, list acres: Owned: _____ Rented: _____

If the operation contains pasture, then complete the Pasture Management Worksheet.

d. **Total acres available for manure: (b. + c.)** _____ Acres

e. **Animals on the operation:** Yes No

If animals are on the operation, complete the Animals Worksheet. Refer to Appendix 2, Agronomy Facts 54, Pennsylvania's Nutrient Management Act (Act 38) for additional information.

f. **Environmentally Sensitive Areas:**

Private or public drinking water wells Yes No

Streams, lakes, springs, or ponds Yes No

Open sinkholes Yes No

Areas of concentrated flow including swales, ditches, gullies, etc. Yes No

For winter application, above ground inlet to agricultural drainage system Yes No

If the operation contains any environmentally sensitive areas, then complete the Environmentally Sensitive Areas Worksheet and identify the environmentally sensitive areas on the Operation Map.

g. **Winter Application:** Is manure applied during the winter? Yes No

If yes, then complete the Winter Application Worksheet.

h. **Agricultural Process Wastewater:** Is any agricultural process wastewater generated on-site? Yes No

If yes, then complete the Agricultural Process Wastewater Worksheet.

i. **Manure Storage Facilities:** Is manure stored in a manure storage facility (concrete tank, metal tank, under-building structure, earthen, clay, or synthetic lined pond or lagoon, solid manure stacking pad, etc.)? Yes No

If yes, then complete the Manure Storage and Stacking Worksheet.

j. Solid Manure Stockpiling or Stacking:

Yes No

Is manure stockpiled or stacked in outdoor areas?

If yes, then complete the Manure Storage and Stacking Worksheet.

k. Animal Concentration Areas (ACAs):

Yes No

If yes: Owned: Rented:

If the operation contains any ACAs, then complete the ACA Worksheet.

l. Manure Spreader Calibration: The manure spreader used to apply all manure will be calibrated according to the recommendations in Agronomy Facts 68 found in Appendix 3 prior to manure application.

Yes NA

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ANIMALS WORKSHEET

Use Additional Sheets as Necessary
(See Workbook Instructions on Page 4)

1. Animal Unit and Animal Equivalent Unit Calculation:

Animal Type (a)	Animal # (normal production day) (b)		Average Weight (lb.) (c)		1,000	=	Animal Unit (AU) (d)		Days on operation per year (e)		365	=	Animal Equivalent Unit (AEU) (f)
		×		÷				×		÷			
		×		÷				×		÷			
		×		÷				×		÷			
		×		÷				×		÷			
		×		÷				×		÷			
Total													

Refer to page 14 and *Agronomy Facts 54, Pennsylvania's Nutrient Management Act (Act 38): Who is Affected?* found in Appendix 2 when completing the Animals Worksheet.

If the operation maintains greater than 2.00 AEU/acre and eight or more total AEUs according to Calculation 2, the operation is regulated under Pennsylvania's Nutrient Management Act (Act 38), and the operator should consult with a certified nutrient management specialist before proceeding with the remainder of the Manure Management Plan.

2. AEU/Acre Calculation:

Total AEUs (1f) = _____

Total acres available for manure
(Operation Information Page, Letter d) = _____

Total AEUs ÷ Total Acres available for manure = AEUs/Acre

_____ AEUs ÷ _____ Acres = _____ AEU/Acre

MANURE MANAGEMENT PLAN WORKBOOK
Section 3 – Operation Map

INSERT OPERATION MAP
(See Workbook Instructions Page 10)

MANURE MANAGEMENT PLAN WORKBOOK
Section 4 – Manure and Agricultural Process Wastewater Storage and Stockpiling/Stacking Areas

AGRICULTURAL PROCESS WASTEWATER WORKSHEET

Use Additional Sheets as Necessary
(See Workbook Instructions Page 11)

1. Type of agricultural process wastewater generated on site (water system overflow, wash water, milkhouse wastewater, egg wash water, etc.)

2. Agricultural process wastewater is directed to a manure or waste storage facility listed on the Manure Storage and Stacking Worksheet and land applied according to recommendations in the Manure Management Plan Summary? Yes No

a. If yes, identify the manure or waste storage facility or facilities listed on the Manure Storage and Stacking Worksheet that receive(s) the agricultural process wastewater.

b. If no, the operator should immediately contact the county conservation district, NRCS, or a private consultant for management recommendations and technical assistance. Identify the date, name, and affiliation of the contact in the space below.

Date of Contact _____

Name and Affiliation of Contact _____

i. Description of management strategies for agricultural process wastewater generated on-site discussed with the county conservation district, NRCS, or private consultant.

ii. Planned Implementation Date: _____

Implemented on Date: _____

MANURE MANAGEMENT PLAN WORKBOOK

MANURE STORAGE AND STACKING WORKSHEET

(Include Information for Each Manure Storage Facility and Stacking Area)

Use Additional Sheets as Necessary

(See Workbook Instructions Page 12)

1. Type of storage(s) and stacking area(s) (concrete or metal tank, under building structure, earthen or clay or synthetically lined pond or lagoon, exposed concrete pad, roofed solid manure stacking pad, etc.) and year(s) of construction:
 - a. A copy of the professional engineer certification is kept on site for all liquid or semisolid manure storages constructed after January 29, 2000. Yes
 - b. If a copy of the certification is not available, provide the date a registered professional engineer was contacted _____
2. Approximate size and volume of existing liquid and semisolid manure storages and/or the dimensions of existing stacking area(s), indicate if exposed to precipitation.
3. Additional materials added to the manure storage(s) or stacking area(s) including bedding, silage leachate, and/or agricultural process wastewater (see the Agricultural Process Wastewater Worksheet):
4. The operation maintains adequate manure storage to apply manure according to the application recommendations outlined on the Manure Management Plan Summary. Yes No
5. All manure stacking or stockpiling areas not on the farmstead meet the following criteria: Yes No
 - a. At least 100 feet from environmentally sensitive areas.
 - b. On properly constructed and improved stacking areas whenever possible.
 - c. On the top of a hill where possible, diverting upslope water away from the areas.
 - d. On less than 8% slope.
 - e. Manure is dry enough to stack at least four feet in height.
 - f. The volume of stacked manure is limited to the amount that can be spread on near-by fields.
 - g. Covered with a water-repellant cover if it will be in place for more than 120 days.
6. Actions or best management practices needed to address identified problems related to manure storage and/or stacking and the planned implementation date (season and year) for each practice or action:

MANURE MANAGEMENT PLAN WORKBOOK Section 5 – Pasture Management

PASTURE MANAGEMENT WORKSHEET (See Workbook Instructions Page 14)

List all pastures in the Manure Management Plan and identify these pastures on the operation map.

1. Identify the pasture management approach below:

- I am implementing grazing plan meeting the requirements of the Natural Resources Conservation Service Pennsylvania Technical Guide Practice Standard 528 for Prescribed Grazing.
- I am managing or will manage my pastures by the date listed below to maintain at least three (3) inches of vegetation height and 70% perennial vegetative cover when animals are present on pasture.

Date Implemented or Planned Implementation Date _____

2. If one of the above boxes are checked and animals are excluded from streams, seeps, ponds, and other surface waters, and clean drinking water is available to all livestock meeting their daily water requirements, identify the additional information below.

Exclusion Fence Length (ft) _____ **Average Width of Excluded Area (ft)** _____

Installation Date of Fence and Watering System _____

If any fields are overgrazed, then they must be reestablished in the next growing season or those fields should be managed as an Animal Concentration Area (See the Animal Concentration Areas Worksheet). Overgrazing means that the pasture is not meeting either of the pasture management guidelines identified in the above checkboxes.

MANURE MANAGEMENT PLAN WORKBOOK Section 6 – Animal Concentration Areas

ANIMAL CONCENTRATION AREAS WORKSHEET (See Workbook Instructions Page 15)

1. Technical Assistance:

Some operations may need technical assistance to develop and implement BMPs on Animal Concentration Areas (ACAs) and/or develop a plan to minimize bare spots and maintain at least three inches of vegetation height and 70% perennial vegetative cover while animals are present on the pasture. The operator has no more than three years from the date of developing the Manure Management Plan to implement BMPs or establish pasture conditions on ACAs. DEP believes that most operations will be able to implement BMPs on a much shorter time frame but recognizes that more time may be needed for some costly BMPs.

Operators with ACAs requiring corrective actions should immediately contact the local conservation district, NRCS, or a private consultant and should document that contact and the time frame for developing and implementing BMPs.

List date contact was made to the assisting agency/party to help in these efforts: _____

List who was contacted to assist in these efforts: _____

2. Describe the management strategies for any ACAs on the operation.

3. BMP Implementation Schedule

Identify the date implemented in the "Date" row of the ACA block if BMP has been implemented. List the planned date for implementation in the "Date" row of the ACA block if the BMP is planned. Record N/A if the BMP does not apply.						
If installed, list the amount installed in the units listed in the "Amount" row of the ACA block.						
ACA Name or Location (Refer to Operation Map)	Divert clean water around ACA (Number of Systems)	Improve and stabilize the surface material of the ACA (Sq. Ft)	Direct polluted water to storage or vegetated treatment area	Limit access to streams through stabilized crossings and watering areas	Limit size of denuded areas	Locate area where animals congregate (feed areas, shade, etc.) away from streams
	Date					
	Amount					
	Date					
	Amount					
	Date					
	Amount					
	Date					
	Amount					

