

# LAND APPLICATION OF MANURE

A supplement to Manure Management for Environmental Protection

## Manure Management Plan Guidance

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**pennsylvania**

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**Bureau of ~~Watershed Management~~ Clean Water**

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**TITLE:** LAND APPLICATION OF MANURE, a supplement to Manure Management for Environmental Protection

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**AUTHORITY:** Section 5(b)(1) and Section 402 of the Pennsylvania Clean Streams Law, 35 P.S. Sections 691.5(b)(1) and 691.402; Section 1920-A of the Administrative Code of 1929, 71 P.S. Section 510-20, and 25 Pa. Code Section 91.36(b).

**POLICY:** The land application of animal manures and agricultural process wastewater must follow the standards for development and implementation of a plan to manage nutrients for water quality protection using standards outlined in the Manure Management Manual.

**PURPOSE:** The purpose of these revisions is to update the manual so that it can be used directly by farmers and to make the Manure Management Manual reflect changes to both Federal and State laws.

**APPLICABILITY:** The revisions to this technical guidance are applicable to all farming operations that land apply manure or agricultural process wastewater.

**DISCLAIMER:** The policies and procedures outlined in this guidance document are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the Department to give these rules that weight or deference. This document establishes the framework, within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

**PAGE LENGTH:** 30 pages

## PREFACE

This publication supersedes all previous *Field Application of Manure* supplements to the *Manure Management for Environmental Protection* manual published by the Pennsylvania Department of Environmental Protection (DEP). Due to changes in recommendations and practices, copies of the previous manuals should be discarded.

The Manure Management Manual for Environmental Protection and its supplements provide guidelines that comply with DEP regulations concerning animal manures and agricultural process wastewaters. The criteria established in this manual are required to be followed by all operations applying manure or agricultural process wastewater, farms that pasture animals and farms managing an Animal Concentration Area (ACA) unless the operators obtain a permit or approval from DEP to implement alternative practices.

The provisions of this Land Application of Manure Supplement work together with the Agricultural Erosion and Sediment Control Plan required for agricultural plowing and tilling and managing Animal Heavy Use Areas (also known as Animal Concentration Areas). Certain sections of information developed using this manual can be used as part of the Agricultural Erosion and Sediment Control Plan.

Some farmers may have operations that are Concentrated Animal Operations (CAOs) under the Nutrient and Odor Management Act Regulations, or Concentrated Animal Feeding Operations (CAFOs) under Pennsylvania's National Pollutant Discharge Elimination System (NPDES) CAFO program. These farmers must follow requirements different from those found in this manual.

**Commonwealth of Pennsylvania**  
**Department of Environmental Protection**  
**Bureau of ~~Watershed Management~~ Clean Water**  
**Harrisburg, Pennsylvania**



## REQUIREMENTS FOR MANURE MANAGEMENT PLANS

Every farm in Pennsylvania that land applies manure or agricultural process wastewater (generated on the farm or received from an importer), regardless of size, is required to have and implement a written Manure Management Plan. This includes manure and agricultural process wastewater application by various types of equipment and/or direct application of manure by animals on pastures and in Animal Concentration Areas (ACAs). In other words, farms that do not mechanically apply manure but which do have pastures or ACAs still need a manure management plan.

**The Manure Management Plan format in this manual must be used for the written manure management plan unless the farmer gets approval from DEP for an alternative plan format.** In

addition to developing a written plan, the farmer must also complete and maintain records to demonstrate compliance with the Manure Management Plan. DEP has developed a Manure Management Plan Workbook for farmers to use that contains the forms described in this manual. Requests for approval of alternative formats should be directed to DEP's Division of ~~Conservation~~ ~~Districts and Nutrient Management~~, P.O. Box ~~8465~~, Harrisburg, PA 17105-~~8465~~, phone number 717-783-7576. **7. (717-783-7577)**

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Once completed, this Workbook will become the farm's Manure Management Plan which must be implemented. The staff from DEP or county conservation district may request to see a copy of this plan when they visit a farm. The farmer should also provide a copy of the Manure Management Plan Summary Worksheet to the individual that land applies manure at a farm or on any rented land. Failure to follow the plan is a violation of state, and in some cases, federal law.

Manure Management Plans can be prepared by the farmer although the farmer may benefit from obtaining assistance from individuals trained and experienced in developing these plans. Assistance may be available from a variety of sources including certified nutrient management specialists, certified manure brokers and haulers, county conservation districts, Natural Resource Conservation Service (NRCS) staff, Penn State University staff and farm organizations.

Farms defined as Concentrated Animal Feeding Operations (CAFOs) and Concentrated Animal Operations (CAOs) are required to develop written plans as well. The nutrient management plans for these animal operations are required to follow a different more detailed process and must be developed by a Certified Nutrient Management Specialist.

In addition to obtaining approval from DEP, animal operations that do not want to follow the planning process outlined in this manual may obtain the assistance of a certified planner and utilize the nutrient management planning process under the Nutrient and Odor Management Act, 3 Pa.C.S. §§ 501-522 (Act 38) used by the CAFOs and CAOs. This alternative planning process is acceptable to DEP and may provide for some added flexibility in the application of manure on the farm.

## MANURE MANAGEMENT PLAN INSTRUCTIONS

The following Manure Management Planning forms and instructions serve as the standard plan format for farmers who own or manage operations where manure or agricultural process wastewater is land applied. Acceptable alternative formats include those approved for use under Act 38 and the CAFO programs. Other planning formats and procedures require DEP approval.

Questions concerning the manure management plan should be directed to the DEP regional office serving the county or alternatively to the county conservation district. Requests for approval of alternative formats should be directed to DEP, ~~Division of Conservation Districts and Nutrient Management~~, P.O. Box 8465, Harrisburg, PA 17105-8465, phone number 717-783-7576. Bureau of Clean Water,  
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The Manure Management Plan has seven sections as outlined below. The first four sections are required for all manure management plans. Section 5 is required if the farm stores either liquid or solid manure. Sections 6 and 7 are required if the farm pastures animals or has ACAs. This manual provides directions on how to complete each of the seven plan sections, the required criteria for developing and implementing a manure management plan, as well as examples of how to complete many of the standard forms. Appendix 1 includes the Manure Application Rate Charts that farmers can use to "look up" application rates for specific manure types and crops. In addition, DEP has developed a Manure Management Plan Workbook for farmers to use that contains a blank copy of the planning forms.

**Section 1 - General Information.** This section includes general information about the farm. **This section is always required in a manure management plan.**

**Section 2 - Mechanical Manure Application Rate and Timing.** This section documents manure application rates and timing for mechanical application of manure. **This section is always required in a manure management plan.**

**Section 3 - Farm Map.** This section provides a farm map identifying the location of fields, structures, environmentally sensitive areas and manure application setbacks. **This section is always required in a manure management plan.**

**Section 4 - Recordkeeping.** This section provides a description of required recordkeeping and provides forms that can be used for recordkeeping. **This section is always required in a manure management plan.**

**Section 5 - Managing Manure Storage in Structures and Stockpiling/Stacking Areas.** **This section is only necessary if the farm has a manure storage facility or stockpiles or stacks manure.**

**Section 6 - Pasture Management.** This section is **only necessary if the farm has one or more pasture fields.**

**Section 7 - Animal Concentration Areas.** **This section is only necessary if the farm has one or more ACAs (such as barnyards, feedlots, animal exercise areas).**



*Freeboard* - The vertical distance between the maximum designed surface elevation of manure or agricultural process wastewater in a liquid or semisolid manure storage facility and the top elevation of the facility.

*Improved stacking pad* - A permanent, improved, stabilized and compacted surface area with runoff controls to prevent a polluttional discharge used for the storage of solid manure which is capable of being stacked at least 4 feet high.

*Manure* - Animal excrement (urine and feces), including poultry litter and composted manure, which is produced at an agricultural operation. The term includes materials such as bedding, waste water and raw materials which are commingled with that excrement.

*Manure group* - A portion of the manure generated on an agricultural operation that is distinct due to factors including but not limited to: animal type(s), and manure consistency.

*Manure Management Manual (MMM)* - The guidance manual published by the <sup>DEP</sup> ~~Pennsylvania Department of Environmental Protection~~ that is entitled "Manure Management Manual for Environmental Protection" including its supplements and amendments. The manual describes approved manure management practices for all agricultural operations as required by regulations implemented by ~~the Pennsylvania Department of Environmental Protection~~. <sup>DEP</sup>.

*Mehlich 3-P* - The soil test method required to be used to determine phosphorus levels in a field for purposes of the Manure Management Manual.

*Manure Management Plan (MMP)* - A written site specific plan outlining the agreed upon and acceptable practices for the land application of manure and agricultural process wastewaters under the regulations implemented by the ~~Pennsylvania Department of Environmental Protection~~. <sup>DEP</sup> The term includes a plan established using the format contained in this Land Application of Manure Supplement to the Manure Management Manual.

*Mechanical application* - The application of manure by a person through any mechanical means such as a manure spreader, irrigation system, horse drawn equipment or a pitch fork. The term does not include direct application of manure by animals on pastures and/or in Animal Concentration Areas.

*Nutrient Management Plan (NMP)* - A site specific plan outlining the agreed upon and acceptable practices for the handling and land application of all plant nutrient sources meeting the requirements established under Pennsylvania's Nutrient Management Program implemented through the regulations of State Conservation Commission (25 Pa. Code Chapter 83).

*Pasture* - Land used for grazing animals that is managed:

1. under a grazing plan meeting the requirements of the Natural Resources Conservation Service Pennsylvania Technical Guide Practice Standard 528 for Prescribed Grazing or
2. by assuring that there is dense vegetation in the field during the growing season. Dense vegetation means that the pasture is managed to minimize bare spots and keep average vegetation height across the pasture during the growing season at least 3 inches high.