

Managing Manure in Environmentally Sensitive Areas

The proper storage and handling of animal manure and other nutrient sources in areas close to water bodies is an essential Best Management Practice (BMP) for preventing nutrient runoff. This newsletter is provided as a tool for nutrient handlers to better understand the use of nutrient handling BMPs in areas near surface water, including drainage ditches.

This newsletter will examine three management scenarios for manure handling and storage in environmentally sensitive areas. Sensitive areas include:

- ◆ Streams, drainage ditches, creeks or rivers (any watershed draining more than 800 acres);
- ◆ Drainage ditches (less than 800 acres);
- ◆ Lakes and ponds;
- ◆ Marshland, swamps or other wetlands.



This well-managed litter-manure shed maintains all litter-manure under roof, as required by law.

The most important factor when managing manure is to prevent contact between the manure and rainfall. Such contact can lead to the runoff of nutrients, and may be considered a discharge, which may trigger the Environmental Protection Agency’s regulations.. This is especially important when the manure is close to a stream or ditch. According to the State Nutrient Management Law, manure shall not be stored outside within 100 feet of a stream, ditch, pond or other surface water.

In manure management terms, a farm is separated into the production area and the application area. The application area is that part of the farm where crops are grown. The production area is that part of the farm near the animal feeding buildings or manure storage structure. Manure storage in the application area must be managed to prevent a discharge as outlined by the Nutrient Management Standards. Manure storage in the production area must also be managed to prevent a discharge and is limited to 14 days outside, unless near (within 100 feet) a sensitive area. The following scenarios will provide site-specific guidelines for manure management around sensitive areas.



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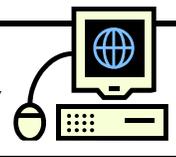
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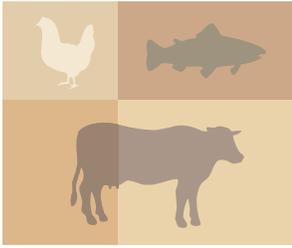
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Check out the University of Delaware at:
[Http://ag.udel.edu/extension/NutriManage/](http://ag.udel.edu/extension/NutriManage/)





Mark
Your
calendar
upcoming
Full
Commission
Meetings

Meetings begin 7:00 pm

2007

August 14

September 11

October 9

November 13

December 11

SCENARIO ONE

Manure Shed within 100 feet of Surface Water

The key management factor for this situation is to ensure that manure is not exposed to rainfall during storage, and handling to and from the manure shed. By following the BMPs listed below, such exposure and most nutrient runoff can be eliminated:

- ◆ Keep manure completely under-roof at all times. If the shed becomes so full that manure cannot be stored inside, measures should be taken to export or to store the excess in an application area;
- ◆ Loading and unloading manure must be managed to prevent spills that would later be exposed to runoff;
- ◆ In areas between sheds and ditches, it is helpful to maintain a vegetative buffer. This will help to absorb any nutrient runoff.



This well managed production area has ditches throughout, and is more sensitive to nutrient runoff.

SCENARIO TWO

Chicken House within 100 feet of Surface Water

Similar to Scenario One, manure is prohibited from being stockpiled outside of the chicken house doors if within 100 feet of a waterway or ditch. Utilizing the following practices will prevent the manure from coming into contact with rainfall:

- ◆ Manure or litter in the chicken house is already considered to be under-roof and does not violate the 100 foot storage setback;
- ◆ During crust or clean out operations, litter should be loaded from inside the house into the transport vehicles, and should not be stored outside of the chicken house;
- ◆ Any manure spilled during loading or unloading should be cleaned from the ground to prevent future runoff;
- ◆ The manure should not be stockpiled outside within 100 feet of surface water or a ditch.



SCENARIO THREE

Streams or Ditches in the Area where Manure is to be Land Applied, or the Application Area

As with the previous two scenarios, the manure shall never be stored outside within 100 feet of surface water or a ditch. Other factors to take into account when storing in such a sensitive area follow:

- ◆ Manure should not be stored in areas with steep slopes or prone to flooding;
- ◆ Stockpiles need to be at least six feet in height and conical in shape;
- ◆ Once the stockpiled manure is land applied, the storage area must be seeded with grass or planted with crops.



Many poultry farms were built in areas with ditches, and are more vulnerable to nutrient runoff. Owners and managers must be vigilant in protecting manure from runoff to these sensitive areas.

CONCLUSION

Many farms were constructed near or around sensitive environmental areas and BMPs are more important in reducing nutrient runoff. A farm with ditches throughout is more sensitive and a farmer must be aware of the setbacks and other BMPs. Ultimately, manure storage must be managed to prevent manure and nutrients from discharging into waters defined as sensitive areas. Such discharges may activate permitted programs such as the Concentrated Animal Feed Operation (CAFO), which is overseen by the Environmental Protection Agency (EPA). By following a few simple steps when cleaning out, handling and storing manure, farmers can reduce nutrient runoff to nearby surface water. For further information or assistance, contact either your County Conservation District or the Delaware Nutrient Management Program.

Session Schedule:

Session 1

08/29/07

1:00—4:00 pm or
6:00—9:00 pm

Session II

09/05/07

1:00—4:00 pm or
6:00—9:00 pm

Session III

09/12/07

1:00—4:00 pm or
6:00—9:00 pm

Sessions I, II, and III
will be held at the
Delaware Agricultural
Museum and Village
866 N DuPont Hwy
Dover, DE 19901

Session IV

Commercial Nutrient Handler

09/19/07

9:00 am—12:00 pm

Session IV

Nutrient Management Consultant

09/19/07

1:00—4:00 pm

Commercial Nutrient Handler Exam

10/03/07

09:00—11:00 am

Nutrient Management Consultant Exam

10/03/07

09:00—11:00 am

Session IV

and the Exams

will be held at the
Delaware Department
of Agriculture
2320 S DuPont Hwy
Dover, DE 19901

These sessions are for
individuals that need to be
certified through the
Delaware Nutrient
Management Program.
You will NOT be able to
receive continuing
education credits by
attending these
sessions.

To sign up
please call

Carrie Sterling
University of Delaware
(302) 856-2585, ext. 574.

How to get involved and voice your opinion:

Meet and talk to commission members.

Attend commission meetings

Contact the Delaware Nutrient Management Program for dates and locations.

Nutrient Management Program

(302) 698-4500
or
1-800-282-8685

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William Vanderwende-Senate	(302) 349-4423	Sussex County Dairy Producer, DNMC Chairman	
Mark Adkins-Governor	(302) 732-3007	Sussex County Swine Producer	
David Baker-Senate	(302) 378-3750	New Castle County Grain Industry, Personnel Subcommittee, DNMC Vice Chairman	
Robert Baldwin-Governor	(302) 739-4921	Director, Division of Soil & Water Conservation, DNREC	
Jack Manchester-Governor	(302) 994-5544	New Castle County Citizens	
Kenneth Blessing, Jr.-Senate	(302) 422-5746	Kent County Vegetable Farmer	
Tony Keen - Senate	(302) 684-3196	Nutrient Consultant, Technology Subcommittee Chairman	
Connie Larimore-House of Representative	(302) 398-8304	Kent County Poultry Producer, Budget Subcommittee Chairman	
Jim Elliott-House of Representatives	(302) 337-3653	Environmental Advocacy Group,	
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Al Johnson, Jr.-House of Representatives	(302) 335-5454	Commercial Applicator	
Carl Solberg-Senate	(302) 492-1225	Environmental Advocacy Group, Program & Education Subcommittee Chairman	
Richard Sterling-Governor	(302) 653-7060	Commercial Nursery Industry	
Charles West II-House of Representatives	(302) 238-0137	Sussex County Poultry Producer	
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