MARYLAND COOPERATIVE EXTENSION
UNIVERSITY OF MARYLAND
COLLEGE PARK•EASTERN SHORE

Fact Sheet

Fact Sheet 294

Water Pollution From Your Livestock: How Do You Measure Up?

Water pollution from dairy and livestock farms is receiving greater attention by regulatory agencies. Federal, state and local laws and regulations demand increasing participation and compliance by farm owners and operators.

Sources of water pollution from animal production systems can be from direct discharge, diffuse runoff, seepage or percolation of pollutants to surface or ground water. Pollutants consist of sediment, nutrients, pesticides, organic materials, salinity and micro-organisms.

One large source of pollutants on most livestock farms is manure. The management and handling of manure and animals are important parts of water quality improvement.

As you know, animals can be confined in grass pastures, on dirt lots, on concrete lots or some combination of these areas. Manure can be handled in many different ways. The questions and your answers will give an indication of where you stand with respect to water pollution from your farm. Find out if your farm or management system measures up.

By comparing your score for each situation with the answers on page 3, you can evaluate where you should consider remedial action. Remember, this form is for **your own information.**

Animal Areas

Animal areas can be grass pastures, dirt lots or concrete lots. In some instances animal areas can be a combination of two or all three areas. Answer each question for **each** area on your farm. For example, if animals are primarily on concrete but sometimes go to pasture, you should answer each question separately for both the concrete lot and the pasture. If your animals are primarily on concrete, but have a dirt exercise area, you should answer each question separately for **both** the concrete lot and the dirt lot. If some animals are on concrete all of the time and others are always on pasture or a dirt lot, answer each question separately for **each** group of animals.

Instructions:

Under each Animal Area column (concrete lot, dirt lot or grass pasture) write the number of the answer that best fits each question, The same answer can be used for more than one area.

Situation	Animal Area		
	Concrete Lot	Dirt Lot	Grass Pasture
A. My animal area holds	____	____	____
1. less than 30 head per acre.			
2. 31 to 90 head per acre.			
3. 91 to 200 head per acre.			
4. more than 200 head per acre.			
	____	____	____
B. The general slope of my animal area is			
1. slight (0-2%).			
2. moderate (2-5%).			
3. steep (5-15%).			
4. very steep (15-25%).			
(If no pasture, go to D)			
C. My pasture has a grass cover			____
1. all of the time.			
2. most of the time on all areas.			
3. some of the time on most areas.			
4. at no time on most areas.			
D. My animal area has a stream	____	____	____
1. more than 200 feet away.			
2. 50 to 200 feet away.			
3. closer than 50 feet.			
4. at the edge or within the area.			
E. The land between the nearest stream and my animal area is	____	____	____
1. in permanent sod or woodland.			
2. in cropland.			
3. a driveway or road.			
4. an unfenced swamp, wetland or streambank.			
F. My animals get most of their drinking water from	____	____	____
1. an improved water tank with controlled drainage.			
2. a water tank with no drainage control.			
3. a pond.			
4. a spring seep or stream.			

Situation (continued)	Animal Area		
G. Rainfall runoff from fields uphill of my animal area	________	________	________
1. does not naturally drain from uphill fields.			
2. is totally diverted around the area with conservation structures.			
3. sometimes flows across my animal area when the rainfall is heavy.			
4. crosses my area most of the time.			
H. Around the buildings on my farmstead	________	________	________
1. all sources of runoff are diverted from entering animal-holding area.			
2. roof runoff is collected in eaves gutters, but drains out to some portion of the animal-holding area.			
3. roadway runoff flows through some portion of the animal-holding area.			
4. both roadway and roof runoff flow through the animal-holding area.			
I. Runoff from my animal area	________	________	________
1. is controlled by conservation structures within the animal area.			
2. is collected by conservation structures clownslope of my animal area.			
3. is uncontrolled, but flows from my animal area to cropland, grassland or forest.			
4. is uncontrolled and flows directly to a ditch or stream.			
Total score for **EACH** column:	________	________	________

Do not combine column scores. If separate groups of animals were tested, do **not** combine the group scores.

• Manure Management Methods

Manure is handled many different ways, which may vary season to season. Under each question, more than one situation may be applicable to your farm. Check all answers per question that fit your farm.

A. Manure collected on concrete areas

1. ________ is removed daily.
2. ________ is removed on a regular basis but not daily.
3. ________ is removed two or three times a year.
4. ________ is removed by rainfall runoff.

B. Manure is stored in
1. ________ a structure made for manure storage.
2. ________ an open pile on concrete.
3. ________ an open pile in a field.
4. ________ an open pile in a field near a stream.

C. Runoff from my concrete lot or manure storage area
1. _________ is captured in a lagoon or settling basin and field spread.
2. _________ flows across a grassed area.
3. _________ is captured in a grassed waterway or diversion, but runs out the other end.
4. _________ is uncontrolled.

D. I spread manure from storage
1. ________ whenever possible, to keep storage space available.
2. ________ whenever the storage space becomes full.
3. ________ just often enough to keep storage space from overflowing.
4. ________ only when I can, even if the storage space overflows.

E. In the winter I spread manure on snow-covered or frozen fields
1. ________ seldom.
2. ________ that have moderate slopes with good ground cover or mulch.
3. ________ that have no cover or mulch.
4. ________ that have steep slopes.
5. ________ that are next to streams.

F. I spread manure from storage
1. ________ by covering the manure with soil.
2. ________ as a topdressing on hay, sod or grassland.
3. ________ on cropland.
4. ________ on top of fallow ground.

G. I spread manure
1. ________ at managed rates on fields I know can use the fertilizer.
2. ________ on fields I know need the fertilizer, but I don't know how much I do spread or how much I should spread.
3. ________ anywhere I can just to get rid of it.
4. ________ on the same field almost all of the time.

(if no dairy, skip this question)
H. I have dairy and milking waste piped to
1. ________ a specially designed storage area or lagoon for later field spreading.
2. ________ a grassed area for seepage into the soil.
3. ________ an outlet in the cattle lots.
4. ________ a nearby ditch or stream.

Evaluation: To score Manure Management Methods section, add the numbers in front of each answer checked. Your total for this section is________.

How Do You Measure Up?

Write your scores below for each of the Animal Areas and/or animal groups and for your Manure Man
Methods. Compare each score with the table.
Score: Concrete Lot _____; Dirt Lot _____; Grass Pasture _____; Manure Management _____.

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     9 to 12 - You are in good shape in that area.
    13 to 22 - Some things need fixing up. Check on high scoring items.
    23 to 30 - You should call your Soil Conservation District or Extension office
               planning your conservation methods.
More than 30 - You might expect a call from the state regulatory agency any day.
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The local Soil Conservation District supervisor will be glad to discuss your plan or help you develop y
Conservation and Water Quality Plan.

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