Manure Storage: Assessing Your Risks — Self-assessment Worksheet 2

Small Acreage Livestock and Horse Series, March

This worksheet assesses the relative risk to water quality from a manure storage or composting area. This worksheet accompanies **Fact Sheet 4: Keeping Livestock and Horses on Small Acreages: Assessing Your Risks to Water Resources.**

If you have more than one manure storage or composting area, consider filling out a separate worksheet for each area. Otherwise, fill out the worksheet for the yard that is closest to a drinking water well or other water resource. Check the response that best describes your manure storage situation. Although some choices may not correspond exactly to your situation, choose the response that is most comparable to your perceived risk.

ASSESSMENT CATEGORY	LOW RISK	MEDIUM RISK	HIGH RISK
LOCATION			
Distance from a drinking water well.	More than 200 feet. ____	100 – 200 feet. ____	***Less than 100 feet.** ____
Distance from surface water: pond, stream, wetland, or coastal water.	More than 200 feet. ____	100 - 200 feet. ____	Less than 100 feet. ____
Distance from a drainage feature: storm drain, drainage ditch, etc.	More than 200 feet. ____	100 - 200 feet. ____	Less than 100 feet. ____
Distance from septic system components: septic tank, distribution box, leachfield, cesspool, dry well.	Greater than 50 feet. ____	25 – 50 feet. ____	Less than 25 feet. ____

***State of Rhode Island Rules and Regulations Governing the Enforcement of Chapter 46-13.2 Relating to Drilling of Drinking Water Wells, December 1989: Wells shall not be located within 100 feet of livestock pens or animal waste storage facilities.**

SITE CHARACTERISTICS	LOW RISK	MEDIUM RISK	HIGH RISK
Soil texture within the storage area. If the storage area is paved, indicate the original and surrounding soil type.	Silt loam (feels like talcum powder, smooth, silky.) ____	Fine sandy loam (not as smooth as silt loams, sounds gritty when rubbed between fingers.) ____	Sandy loam, loamy sand (coarse texture, feels gritty.) ____
Soil drainage within the storage area. If the storage area is paved, indicate the original and surrounding soil drainage.	Well-drained, high water table 6 feet or more below the surface. ____	Moderately well-drained, high water table within 18 – 36 inches of the surface. ____	Excessively drained, rapid drainage; **or,** poorly drained, high water table at or near the surface. ____
DESIGN AND MANAGEMENT			
Type of floor surface for manure storage.	Poured concrete floor ____	Plastic liner, tarpaulin, wooden bin, or concrete blocks. ____	Earthen, gravel, natural ground. ____
Type of covering for manure storage area.	Manure storage area contains a roof structure. ____	Manure storage area is covered with a plastic liner or tarpaulin or other secure covering. ____	Manure storage area is not covered. ____
Upslope surface runoff and roof runoff. (Runoff flowing into the manure storage area.)	No surface water runoff or roof runoff flows into the storage area. ____	Some surface water and/or roof runoff flows into the storage area. ____	All surface and roof runoff flows into the storage area. ____

DESIGN AND MANAGEMENT Continued	LOW RISK	MEDIUM RISK	HIGH RISK
Manure storage runoff. (Runoff flowing from the manure storage area.)	No runoff and leachate leaves the storage area. The area is roofed, the floor surface is poured concrete and/or the storage consists of a water-tight concrete or steel design. ____	The storage area is covered with a plastic liner and/or contained by walls (concrete, wooden, earthen). Runoff and leachate flowing from the storage area travel to well-vegetated areas (woodlands, buffer strips, pastures), runoff does not leave the property or enter water resource areas. ____	The storage area is not covered or contained. Runoff and leachate are uncontrolled, travel through poorly vegetated areas, gravel or paved areas, water resource areas, or leave the property. ____

RESPONDING TO RISKS

Use the action checklist below to list medium and high risks that were identified. Use the information and resources provided in our small acreage livestock fact sheet series to help you plan for practices that reduce these risks. Often a given practice will help to address more than one risk at a time.

ACTION CHECKLIST: MANURE STORAGE AND COMPOSTING AREAS

List high and medium risks below.	What can you do to reduce the risk?	Set a target date.
Example: *Sheep manure storage area is not covered and exposed to precipitation. Runoff leaving the storage area travels down the driveway.*	*Cover the pile with a tarpaulin and weight down with concrete blocks.* *Plant a grass filter strip around the manure storage area to trap and settle additional runoff.*	*This weekend: August 14* *By Sep. 15th*

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THE UNIVERSITY OF RHODE ISLAND

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