

NEWS RELEASE

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UNIVERSITY OF WISCONSIN-EXTENSION**

September 13, 2005

"Appreciation is extended to Tony Smith, Resource Conservationist for the Manitowoc County Soil and Water Conservation Department, for the following article on manure management concerns."

DRY FALL WEATHER PRESENTS NEW CHALLENGES FOR LAND APPLIED MANURE

The extraordinary dry weather experienced by farms in Manitowoc County has created conditions that are very sensitive to even small discharges of liquid or solid manure to streams or lakes.

Streams that normally have abundant flow are reduced to a trickle. Small water volumes tend to be warmer and hold less dissolved oxygen needed by fish and other aquatic organisms. As a result, very small discharges of pollution from field applied manure to streams can result in killing fish. Rain showers during the fall can result in runoff, even from dry fields, especially after manure applications. All farm operators and manure applicators should be aware of the increased risk. Ample buffer zones and incorporation with rough tillage that thoroughly blends, mixes or combines soil and manure will reduce risk of runoff.

Fields harvested for corn silage have been problem sources in the past. Corn silage harvest typically leaves fields relatively residue free, and compacted. Manure applications that are not incorporated are vulnerable to runoff, even on modest slopes.

Heavy soil plus tile drains are potential problems. Root channels, worm holes and cracking (macro pores) in heavy soils in Manitowoc County are known to quickly take manure water into tile drain lines and release the contaminated water to a stream or lake system. Highly liquid manure creates the highest risk. To reduce the risk of manure water from entering tile lines the following recommendations have been developed by Michigan State University:

ACTIONS TO PREVENT A TILE LINE DISCHARGE

- Excessive application rates increase the chance of runoff and a tile line discharge. Calibrate manure spreaders and verify that the calibrated rate is the rate that is actually applied to the field. *Based on observation and evaluation, determine the right application rate for your fields. **On some fields, the right rate may be considerably less than the allowable rate based on manure nutrient content.***
- Use soil and water conservation practices such as crop residue management, and grassed waterways that prevent local ponding and overland flow. Local ponding can funnel waste water to tile lines through macropores.
- Use surface tillage to disrupt the continuity of worm holes, macropores and root channels and reduce the risk of manure reaching tile lines
- Do not apply manure to tile drained fields when the tiles are flowing.
- **Observe and monitor tile outlets. Keep a map of tile outlet locations so they can be found as needed.**

- Match the manure application rate with soil infiltration rates and water holding capacity.
- Make more frequent, lower rate applications rather than a single heavy application.
- Should a discharge occur, have a plan for dealing with manure that may reach tile lines, such as blocking outlets or blocking the flow once it reaches the ditch.
- Surface applications with rapid incorporation may be the best choice on land with subsurface drainage. Conservation tillage before spreading will create a rough, permeable surface. Injection may actually increase problems by placing the manure closer to the tile lines.
- **Decrease the manure application rate**, and avoid spreading in the rain or when rain is in the forecast.

Tile drained lands also have the inherent concern for surface runoff of manure, nutrients and sediment. Even flat fields may have some flow during time of snow melt and spring rains. If manure is not injected or incorporated, observe a 300 foot setback from streams and ditches. Many of the above mentioned practices for avoiding manure in tile lines are also beneficial for reducing runoff. These practices include rough tillage, residue management, cover crops, grass waterways, buffer strips, strip cropping and contour planting. Determining acceptable rates, based on both nutrient rates and the soil's ability to hold the nutrients in the root zone rely on attention to calibration and record keeping.

Manitowoc County Prevention and Response Guides for Manure Spills and Runoff are available from UW Extension and Manitowoc County Soil and Water Conservation Department.

In all cases, if a spill occurs, contact Wisconsin DNR Spill Hotline at 1-800-943-0003 and Manitowoc County SWCD staff at 683-4183.

Calf Care Management (In Spanish) Workshop Scheduled

Two workshops on Calf Care Management have been scheduled for Wednesday, September 21st at Shiloh Dairy west of Brillion. The two workshops will be held from 10 a.m. to Noon and repeated from 1 to 3 p.m. The session will be taught in Spanish

Topics to be covered include:

- Processing the Newborn Calf
 - Colostrum Management and Quality
 - Esophageal Tube Feeding
 - Ear Tagging
 - Navel Dipping
- BVD Ear Punch for BVD Testing
- Tail Docking
- Dehorning
- Identifying Sick Calves

There is no cost for attending. Please RSVP to Calumet County UW-Extension at 920-849-1450.

Each session will be limited to 15 people. This program is sponsored by the University of Wisconsin Extension Dairy Team.

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