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Winter Application of Manure: Regulations and Common Sense

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Abstract
In 2009, the Iowa Legislature passed a bill pertaining to winter application of manure on snow-covered and frozen ground. The rules enforcing that legislation were completed earlier this year and went into effect on Sept. 15, 2010. This law applies to liquid manure from confinement feeding operations that have more than 500 animal units in confinement. This law does not apply to:

- manure from open feedlots
- dry manure (frozen manure is not dry manure)
- liquid manure from small animal feeding operations (confinements with 500 animal units or less)
- liquid manure that can be appropriately injected or incorporated on the same date of application.

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Winter Application of Manure: Regulations and Common Sense

By Angela Rieck-Hinz, Department of Agronomy

In 2009, the Iowa Legislature passed a bill pertaining to winter application of manure on snow-covered and frozen ground. The rules enforcing that legislation were completed earlier this year and went into effect on Sept. 15, 2010.

This law applies to liquid manure from confinement feeding operations that have more than 500 animal units in confinement. This law does not apply to:
• manure from open feedlots
• dry manure (frozen manure is not dry manure)
• liquid manure from small animal feeding operations (confinements with 500 animal units or less)
• liquid manure that can be appropriately injected or incorporated on the same date of application

Confinement feeding operations with more than 500 animal units cannot legally apply liquid manure on snow-covered ground from Dec. 21 to April 1, or on frozen ground from Feb. 1 to April 1 except in an emergency. Frozen ground is defined as “soil that is impenetrable due to frozen soil moisture but does not include soil that is frozen to a depth of two inches or less.” Snow-covered ground is defined by “soil covered by one inch or more of snow or one-half inch or more of ice.”

Operations regulated by these rules can apply manure in an emergency. The emergency must be defined by circumstances beyond the control of the owner and include, but is not limited to natural disasters, unusual weather, or equipment or structural failure. The emergency exemption does not apply to improperly designed or managed manure storage structures, the failure to account for the volume of manure to be stored. However, through the winter of 2014-2015 DNR will allow insufficient storage as a reason for emergency application. If you must apply manure under the emergency exemption, prior to land application of manure, you must contact DNR. You will also be required to report certain facts and follow a certain protocol to meet the emergency exemption requirements.

If you are a producer that is regulated by this law and you have inadequate storage to get you through the dates listed above, you should begin to take action to rectify the situation. This may include building additional storage or reducing animal numbers to reduce manure volume.

Other Things to Consider
Whether this law applies to you or not there are other things you must consider.

• Do you have a NPDES permit? Make sure you know and follow the requirements of your NPDES permit which may limit winter application.
• Do you have a nutrient management plan or comprehensive nutrient management plan from NRCS? If so, you need to carefully review your plan to determine if you can apply manure in the winter. NRCS plans are based on the Iowa 590 Standard and that standard does not allow winter application of manure, except in defined emergencies, and that standard applies to all sources of manure.

• If your operation is required to follow the Master Matrix, then make sure you are in compliance with land application for the Matrix since you may have gotten points for injecting or incorporating manure and winter may cause you to surface apply manure.

Common Sense
Whether you are regulated or not, application of manure on frozen or snow covered ground is not recommended. The potential loss of nutrients to surface water can be significant based on snow depth, snow melt and rapid runoff. Proper storage or stockpiling of manure for spring application protects water quality and the dollar value of the nutrients in the manure. The DNR, Legislature, EPA and your neighbors are closely scrutinizing winter manure application and if the new regulations and related penalties are not sufficient to protect water quality there may be additional restrictions. At what point will this winter application law apply to all animal feeding operations in Iowa?

Manure application on snow-covered ground.

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