

January 26, 2015

## **Winter Manure Application – by Jim Hoorman, Putnam County Extension**

Area livestock farmers are asking “Is it legal to apply manure to frozen and snow covered soils?” It is highly recommended that farmers avoid applying manure during the winter **BUT** it is not illegal **unless** you are in a distressed watershed (e.g. Grand Lake St. Marys in Auglaize/Mercer County). Ohio legislators are actively debating the issue and changes to winter application rules are expected in 2015. The rules state “any discharge of nutrients (manure or fertilizer) into a ditch or stream is a violation” and will be investigated.

Winter application of manure in Ohio is covered by USDA-NRCS Practice Standard 633, “Waste Utilization” which states the proper best management practices to follow. Winter application of manure is risky and the potential for manure runoff is high, so it should only be practiced if no other alternative, like winter storage, exists. If manure application becomes necessary on frozen or snow covered soils, only limited quantities of manure shall be applied to address waste storage limitations until non frozen soils are available for manure application. If winter application becomes necessary, applications are to be applied only if ALL the following criteria are met:

- a. The application rate is limited to 10 wet tons/acre for solid manure more than 50% moisture and 5 wet tons for manure less than 50% moisture. For liquid manure, the application rate is limited to 5000 gallons/acre.
- b. The applications are to be made on land with at least 90% surface residue cover (e.g. good quality hay or pasture field, all corn grain residue remaining after harvest, all wheat residue cover remaining after harvest). Soybean stubble or corn harvested for silage does not qualify for 90% residue cover. A good grass cover crop of cereal rye, annual rye, wheat, or oats should qualify if there is 90% residue cover. Avoid applying manure to oil seed radish crops because the tap roots may increase liquid manure movement to tile lines.
- c. Manure shall not be applied on more than 20 contiguous acres. Contiguous areas for application are to be separated by a break of at least 200 feet. Utilize fields furthest from streams, ditches, waterways, surface water (fields that present the least runoff potential and are furthest from surface water). The purpose of limiting the field to 20 acres and breaks is to slow down liquid manure runoff and minimize the potential for manure to collect on the soil surface and then exit to surface water.
- d. Increase the application setback distance to 200 feet “minimum” from all grassed waterways, surface drainage ditches, streams, surface inlets, water bodies. This distance may need to be further increased due to local conditions. In Northwest Ohio, this means staying away from road ditches and surface drains installed in the fall across fields to drain surface water. In many cases on our flat fields with surface drains, this rule may almost eliminate the legal winter application of manure because there is no land left to apply manure if the setback distances are followed.

Setback distances are doubled for winter manure application. Winter setbacks should be 300 ft. away from wells and residences, public wells, springs, and public surface drinking water. If the manure is incorporated or direct injected within 24 hours, the setback distances away from residences, private wells, and sink holes is reduced to 100 feet. For ponds or lakes, a minimum of 35 feet vegetative barrier is required if the manure is incorporated or injected with an additional 200 foot setback distance for surface applied manure that is NOT incorporated or injected.

e. Additional winter application criteria exists for fields with significant slopes more than 6%. Manure shall be applied in alternating strips 60 to 200 feet wide generally on the contour, or in the case of contour strips on the alternating strips. Generally, this rule almost always prevents the winter application of manure on 6% slopes because the breaks take up so much land there is no room left to apply manure.

Farmers often ask how is the term “snow cover” and “frozen” defined? Kevin Elder, ODA Livestock Permitting defines “snow covered” as greater than 1 inch of snow on the ground. A soil is “frozen” if a farmer is not able to inject the manure with a tool bar. If you can inject manure below the soil surface, the soil is not considered frozen. Contact the Putnam Soil & Water Conservation District office or the OSU Extension office for more details. For OSU manure management information visit <http://oema.osu.edu>.