United States Department of Agriculture
Natural Resources Conservation Service

2011 Ranking Period 1

Water Quality Enhancement Activity – WQL14 – Land application of treated manure

Enhancement Description
This enhancement is for the use of manure that has been treated to reduce **both** odors and pathogens prior to land application. Acceptable practices include controlled temperature anaerobic digestion (mesophilic or thermophilic), composting and chemical treatment. Waste treatment lagoons and injection of manure alone do not qualify as acceptable practices.

Land Use Applicability
Cropland and pastureland.

Benefits
Utilizing manure for land application not only benefits crop production and soil quality, it also reduces air and water quality concerns if properly treated. Odors have been shown to be significantly reduced when manure is treated before land application. Benefits include reduced odors in the airshed. This lessens the impacts on neighboring properties along with potentially increasing the time and areas available for land application. Working conditions for employees can also be improved by the reduction in odors. An additional benefit for treating manure prior to land application is the reduction in pathogens. Human and animal health concerns are diminished due to lower pathogen counts from properly treated animal manure. Reduced or eliminated pathogens from land applied manure also decrease the likelihood water quality contamination from pathogens.

Criteria
Animal manure must be treated with a practice which will reduce both odors and pathogens prior to the manure being land applied. Acceptable treatment practices include:

a. Controlled temperature anaerobic digestion (mesophilic or thermophilic)
b. Composting
c. Chemical treatments

Documentation Requirements

a. Documentation of the manure treatment practice(s) used prior to land application to obtain both odor and pathogen reduction.
b. Documentation of the land application of manure that includes:
    i. Fields where manure is applied
    ii. Manure application rate per field
    iii. Nutrients applied to each field
    iv. Crops grown in each field

United States Department of Agriculture
Natural Resources Conservation Service

2011 Ranking Period 1

Michigan Supplement

Water Quality Enhancement Activity – WQL14– Land Application of Treated Manure

State Criteria:

Acceptable methods of treating manure in Michigan include:

- Controlled temperature anaerobic digestion (mesophilic or thermophilic)
- Composting

- Chemical Treatment is not acceptable for Michigan