

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



Land Application of Treated Manure

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

This enhancement is applicable to cropland and pasture land.

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:

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

Documentation Requirements

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

WATER QUALITY AND WILDLIFE ENHANCEMENT ACTIVITY

WQL14 – OR Land Application of Treated Manure

Documentation Clarification

- Documentation/ record keeping of treatment practice(s) must include scientific elements such as temperature monitoring, pH monitoring, and moisture levels monitoring as appropriate for the treatment method.
- Composted bedded packs do qualify but based on management, an extra step of composting may be required once the pack is removed from barn

References

Various resources on composted bedded packs:
http://www.or.nrcs.usda.gov/technical/engineering/environmental_engineering/index.html#Compost