

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

ALABAMA SUPPLEMENT TO ENHANCEMENT WQL14 LAND APPLICATION OF TREATED MANURE

This enhancement will require producers to use manure that has been treated to reduce both odors and pathogens prior to land application. Land application of treated manure is applicable to both cropland and pastureland. The acceptable treatment practices include: controlled temperature anaerobic digestion (mesophilic or thermophilic), composting or chemical treatments. Waste treatment lagoons and injection of manure alone do not qualify as acceptable practices. In Alabama there are three amendments currently approved for use as a chemical treatment for poultry litter to reduce odor and pathogens. The approved amendments are AI+Clear, Poultry Guard, and Poultry Litter Treatment. All applications of manure must be applied in accordance with the Conservation Practice Standard, Nutrient management (590) and a nutrient management plan. A nutrient management plan contains the following for each application site: a) aerial photographs (with buffers); b) soils map; c) crop rotation; d) soil test (no older than 3 years); e) yield goals; f) Alabama Phosphorus Index; g) nutrient budget; h) planned rates, methods, and timing; and i) guidance for implementation/operation and maintenance/record keeping. Refer to the national enhancement for more information.

Documentation Requirements:

1. Documentation of the manure treatment practice(s) used prior to land application to obtain both odor and pathogen reduction.
2. Documentation of the land application of manure that includes:
 - a. Fields where manure is applied
 - b. Manure application rate per field
 - c. Nutrients applied to each field
 - d. Crops grown in each field
3. Nutrient management plan.

NRCS, Conservation Practice Standard, Nutrient Management (590)

http://efotg.sc.egov.usda.gov/references/public/AL/590_11-02.pdf

ALABAMA SUPPLEMENTAL INFORMATION FOR THIS ENHANCEMENT

WQL14 - Land Application of Treated Manure

Documentation Form

Producer Name:		Date:	
Tract Number(s):		County:	
Manure Treatment Used:			
Amendment Type/Rate/Amount:			
Field(s):			
Crop:			
Acres:			
Manure Applications for each field:			
Application Rate/Amount:	N:		
	P2O5:		
	K2O:		
Manure Application Date:			
Producer has self certified the application of manure was within the 590 standard *			
Fertilizer Applications for each field:			
Application Rate/Amount:	N:		
	P2O5:		
	K2O:		
Fertilizer Application Date(s):			

Attach map showing fields and acreage where enhancement applied and copies of current soil test, manure analysis, and nutrient management plan.

* Producer must self certify that no manure application was made on any buffered portion of the field, manure application were not made within 3 days of a storm event and all other requirements for manure application contained within the 590 standard were satisfied.

SIGNATURE: _____