

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

WASTE UTILIZATION

(Ac.)

CODE 633

DEFINITION

Using agricultural wastes such as manure and wastewater or other organic residues.

PURPOSE

- Protect water quality
- Protect air quality
- Provide fertility for crop, forage, fiber production and forest products
- Improve or maintain soil structure
- Provide feedstock for livestock
- Provide a source of energy

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where agricultural wastes including animal manure and contaminated water from livestock and poultry operations; solids and wastewater from municipal treatment plants; and agricultural processing residues are generated, and/or utilized.

CRITERIA

General Criteria Applicable to All Purposes

All federal, state and local laws, rules and regulations governing waste management, pollution abatement, health and safety shall be strictly adhered to. The owner or operator shall be responsible for securing all required permits or approvals related to waste utilization, and for operating and maintaining any components in accordance with applicable laws and regulations.

Where agricultural wastes are to be *applied* on land not owned or controlled by the producer, the waste management plan, as a

minimum, shall document the amount of waste to be transferred, *the nutrient content of the waste, date of the transfer*, and who will be responsible for the environmentally acceptable use of the waste.

Records of the use of wastes shall be kept a minimum of five years as discussed in OPERATION AND MAINTENANCE, below. *Federal, state, or local regulations may require that record be kept longer than five years.*

Additional Criteria to Protect Water Quality

All agricultural waste shall be utilized in a manner that minimizes the opportunity for contamination of surface and ground water supplies. *Agricultural waste applications to land for the purpose of nutrient utilization by plants shall be planned in accordance with the Nutrient Management (590) conservation practice standard.*

Additional Criteria to Protect Air Quality

All agricultural wastes shall be handled in a manner that minimizes the generation of particulate matter, odors, and greenhouse gases. *Agricultural waste applications to land for the purpose of nutrient utilization by plants shall be planned in accordance with the Nutrient Management (590) conservation practice standard.*

Additional Criteria for Providing Fertility for Crop, Forage and Fiber Production and Forest Products

Where agricultural wastes are utilized to provide fertility for crop, forage, fiber production, and forest products, the Nutrient Management (590) conservation practice standard shall be followed.

This is a draft standard for review and comment purposes only. To obtain the current version of this standard, contact the Natural Resources Conservation Service or download the standard from the electronic Field Office Technical Guide for Missouri. (Italic text indicates state additions to the national standard and blue text indicates a change from current standard)

Additional Criteria for Improving or Maintaining Soil Structure

Wastes shall be applied at rates not to exceed the crop nutrient requirements and (or) allowable salt concentrations. *Agricultural waste applications to land for the purpose of nutrient utilization by plants shall be planned in accordance with the Nutrient Management (590) conservation practice standard.*

Residue management practices shall be used for maintenance of soil structure.

Additional Criteria for Providing Feedstock for Livestock

Poultry litter that is used for feedstock shall be processed in a manner that minimizes contaminations and preserves its feed value. Acceptable methods of processing shall include deep stacking, ensiling, dehydrating, and extrusion-pelleting that obtain a minimum sustained temperature of 145°F. Poultry litter stored for this purpose shall be covered.

The feed product shall be free of harmful pathogens, pesticide residues, parasites, and heavy metal or drug residues above levels permitted by State and Federal statute or regulation. High levels of these contaminants could be harmful to animals or could result in residues in human food products.

A qualified animal nutritionist shall develop rations that utilize organic products.

Additional Criteria for Providing a Source of Energy

Use of agricultural waste for energy production shall be an integral part of the overall waste management system.

All energy-producing components of the system shall be included in the waste management plan and provisions for utilization of residues of energy production *shall be* identified.

Where the residues of energy production are to be land-applied for crop nutrient use or soil conditioning, criteria listed in the Nutrient Management (590) conservation practice standard shall apply.

CONSIDERATIONS

Agricultural wastes contain pathogens and other disease-causing organisms. *Consider guidelines described in 40 CFR Part 503 for reduction of pathogens in wastes and for reduction of vector (potential disease-carrying organisms such as mosquitoes and flies) attraction.*

Municipal by-products are not to be applied to food crops that are directly consumed by humans.

Minimize environmental impact of land-applied waste by limiting the quantity of waste applied to the rates determined using the Nutrient Management (590) conservation practice standard for all waste utilization.

PLANS AND SPECIFICATIONS

Site specifications for establishment and maintenance of this practice shall be prepared according to the Criteria, Considerations, and Operations and Maintenance described in this standard.

A management plan will be developed and will account for the utilization or other uses of all animal wastes produces.

Site specifications shall be recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

The management plan is based on requirements of this standard and any applicable federal, state, and local regulations. Changes to any of these requirements may necessitate a revision of the management plan.

A revision of the management plan is needed when the operation significantly changes in:

- Animal numbers;*
- Animal class, type, or size;*
- Feed management; and (or)*
- Organic waste handling or storage.*

OPERATION AND MAINTENANCE

Records shall be kept for a period of five years or longer, and include when appropriate:

- Quantity of manure and other agricultural waste produced.
- The dates and amounts of waste removed from the system due to feeding, energy production, or export from the operation;
- *Include the dates of periodic reviews, including maintenance of equipment and facilities used to transport or use the organic wastes. Periodic reviews (recommended annually) shall determine when adjustments or modifications to the plan are needed.*
- *Include items to be inspected and maintained as a general time frame for making necessary repairs.*

REFERENCES

Standards for the Use or Disposal of Sewage Sludge, 40 Code of Federal Regulations Part 503. U.S. Environmental Protection Agency, Washington, D.C. 1993.

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