

**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 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 i.e. feed, energy production, compost material, processed fertilizers.

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.

Use of agricultural wastes shall be based on at least one analysis of the material during the time it is to be used. In the case of daily spreading, the waste shall be sampled and analyzed at least once each year. As a minimum, the waste analysis should identify nutrient concentrations.

Where municipal wastewater, sludge, septage and other agricultural waste is utilized, the analysis shall also include determining the concentration of metals in the material as prescribed by state law.

When livestock manures or poultry litter are land applied, NRCS conservation practice standard for nutrient management (590) will be followed.

Where agricultural wastes are to be spread on land not owned or controlled by the producer, the waste utilization shall document the amount of waste to be transferred, date of transfer, analysis of the material, and who will be responsible for the environmentally acceptable use of the waste.

Records shall be kept a minimum of 5 years. See O & M, below.

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 shall not be land-applied on soils that are frequently flooded, as defined by the National Cooperative Soil Survey, during the period when flooding is expected.

Wastes shall not be applied to frozen, snow-covered or saturated soil.

Additional Criteria to Protect Air Quality

Incorporate surface applications of agricultural wastes into the soil within 24 hours of application to minimize emissions and to reduce odors.

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 practice standard Nutrient Management (590) shall be followed.

Where municipal wastewater and solids are applied to agricultural lands as a nutrient source, the single application or lifetime limits of heavy metals shall not be exceeded.

Additional Criteria for Improving or Maintaining Soil Structure

Wastes shall be applied at rates not to exceed the crop nutrients. Residue management practices such as Cover Crops, Seasonal Residue Management, No-Till Residue Management shall be used for maintenance of soil structure.

Additional Criteria for Providing a Source of Energy

Use of agricultural waste for energy production shall be an integral part of the overall waste utilization system. The waste utilization plan will account for the amount of waste utilized.

Where the residues of energy production are to be land-applied for providing fertility or soil structure, the appropriate criteria shall apply.

CONSIDERATIONS

The effect of Waste Utilization on the water budget should be considered, particularly where a shallow ground water table is present or in areas prone to runoff.

Agricultural wastes contain pathogens and other disease-causing organisms. Wastes should be utilized in a manner that minimizes their disease potential. i.e. composting, deep stacking of poultry litter, deferred grazing on application sites. Follow state bio-security measures.

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Priority areas for land application of wastes should be on slopes less than 15% and located a minimum of 50 feet from waterways, sinkholes and other waterbodies. It is preferable to apply wastes on pastures and hayland soon after cutting or grazing before re-growth has occurred.

PLANS AND SPECIFICATIONS

Plans and specifications for Waste Utilization shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

The waste utilization plan will account for:

1. Type of Agricultural Waste.
2. Use of the Agricultural Waste.
3. Amount of Agricultural Waste transferred. (If Applicable)
4. Amount of Agricultural Waste utilized.
5. Waste Application Areas clearly indicated on a plan map.
6. Waste application methods
7. O&M requirements
8. Timing of land application and/or incorporation. (If Applicable)
9. Residue management practices. (If Applicable.)

OPERATION AND MAINTENANCE

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

- Quantity of agricultural waste produced.
- Soil test results.
- Dates and amounts of waste application where land applied and dates and amounts removed from the system due to energy production or export.
- Describe conditions during waste application. Ex. time of day and precipitation in the past 24 hours.
- Crops grown and yields.
- Calibration of application equipment.

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