



Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

WASTE RECYCLING

CODE 633

(no)

DEFINITION

The on-farm agricultural use of nonagricultural waste by-products, or the off-farm nonagricultural use of agricultural waste by-products.

PURPOSE

This practice is applied to—

- Improve soil health
- Reduce contamination of surface and ground water resources
- Reduce emissions of air pollutants

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where waste by-products can be reused to prevent a resource problem and provide a conservation benefit. Where the intended waste recycling activity is to be used on-farm, this practice should be included in the nutrient management plan.

Waste recycling applies where there is a need to protect and improve the quality of natural resources and the environment by properly using nonagricultural waste by-product material that would otherwise be discarded, and will instead be imported into a farm operation. Proper marketing for the export of agricultural waste by-products off-farm, leads to the responsible utilization and reuse of by-products to protect natural resources.

This practice does not apply to the on-farm agricultural use of manure or waste generated by-products that are produced on that farm. For on-farm reuse of farm generated waste, use Conservation Practice Standard (CPS) Nutrient Management (Code 590).

CRITERIA

General Criteria Applicable to All Purposes

Comply with all Federal, State, Territorial, Commonwealth, Tribal, and local laws, rules, and regulations.

The owner or operator must secure all required permits or approvals related to the waste recycling operation, and maintain components and equipment in accordance with applicable laws and regulations.

Perform at least one sample analysis of the waste by-product annually, or more frequently if needed to account for operational changes, to determine the characteristics that are critical to its use. Base the use of the waste on the analysis. Perform further analysis as needed as the waste is processed or undergoes changes. Use a laboratory certified by a State-recognized program that considers laboratory performance and proficiency to assure accuracy of testing results.

When composting is required for processing nonagricultural waste by-products for on-farm use, use the CPS criteria for Composting Facility (Code 317) and criteria for Animal Mortality Facility (Code 316) if appropriate.

Use the criteria from Conservation Practice Standard (CPS) Nutrient Management (Code 590) for any materials imported to provide plant nutrients. Sample tests must include analyses pertinent to monitoring or amending the annual nutrient budget, e.g., pH, electrical conductivity (EC) and sodicity where salts are a concern, soil organic matter, phosphorus, potassium, or other nutrients and test for nitrogen where applicable. Follow land-grant university guidelines regarding required analyses.

When nonagricultural by-product wastes are used on-farm for animal feed, use the criteria in CPS Feed Management (Code 592).

Manage residuals generated by waste processing and reuse activities in a manner that prevents degradation of natural resources and the environment.

CONSIDERATIONS

Consider alternatives to handling agricultural waste by-products to make a product that adds value for an accessible off-farm market. One example would be biodegradable seed starter pots.

Consider recycling used containers by returning them to the suppliers or manufacturers that have a recycling program.

Consider using off-farm organic by-product wastes for bedding, feed, mulch, energy production, or soil quality improvement. Criteria in CPSs Composting Facility (Code 317), Mulch (Code 484), Anaerobic Digester (Code 366), or other practices may apply.

Consider pathogen management. If the recycled product is to be used on food crops or as food for humans or animals, make sure that pathogen levels have been reduced to acceptable levels (reference Food and Drug Administration (FDA) Food Safety Modernization Act at www.fda.gov/FSMA). If the recycled product has come from another farming operation, consider biosecurity measures and the possibility of pathogen transfer that could cause plant or animal diseases.

PLANS AND SPECIFICATIONS

Prepare plans and specifications that describe the requirements for applying the practice to achieve the intended purpose. Account for the use or disposal of all by-products produced or received by the agricultural operation. For additional requirements for plans and specifications refer to the appropriate associated conservation practice standard.

OPERATION AND MAINTENANCE

Keep records for a period of at least 5 years, and include, when appropriate—

- The dates and quantities of by-product material imported to, or exported from, the agricultural production system.
- Analysis of by-product material and test results for critical characteristics.
- A description of how the by-product materials are reused and the conservation benefit achieved.
- Include the dates of periodic inspections and maintenance of equipment and facilities required for the utilization of the by-product material. List the specific equipment to be inspected or maintained and a general time frame for preventive maintenance.

REFERENCES

None.