

Water Quality Enhancement Activity – WQL22 - On farm composting of farm organic waste



Enhancement Description

This enhancement consists of the on farm composting of organic waste from agricultural operations. Composted products must be reused on the farm. This includes **ALL** animal manures, livestock mortality (where state or local laws allow), vegetable culls removed from the field and waste from on farm processing of agricultural products. It does not include any household waste, any hazardous waste products or bio-hazard waste products. Yard waste such as grass clippings and leaves can be included but are not required.

Land Use Applicability

Cropland, Pastureland

Benefits

Composting reduces the volume of waste, kills pathogens, reduces odors and improves the cycling of nutrients. The reuse of the compost products on the farm where they were produced improves soil quality and reduces the need to bring additional nutrients on to the farm.

Conditions Where Enhancement Applies

This enhancement applies to farms that produce livestock manure, vegetable waste and/or other organic waste from on farm processing facilities.

Criteria

All waste products produced on the farm must be composted. This includes:

- a. Animal manures from confined areas
- b. Livestock mortality (where state or local laws allow)
- c. Vegetable culls
- d. Waste from on farm processing of agricultural products

It does not include:

- a. Household waste
- b. Hazardous waste products
- c. Bio-hazard waste products
- d. Crop residue

Follow a composting plan that includes:

- 1. Balancing Carbon/Nitrogen ratio based on materials being composted



2. Management of composting temperatures
3. Mixing and compost time requirements based on materials being composted

Compost site and environmental considerations

1. Size the composting area according to the organic material being generated
2. Divert runoff away from the composting pad
3. Runoff from compost pad must be directed through a grass buffer strip or other means to prevent water quality impairment
4. Select a method (i.e., aerobic composting, anaerobic composting, or vermicomposting) that is compatible with the waste product.

Conduct composting operations in accordance with NRCS Conservation Practice Standards *Composting Facility, 317* and *Animal Mortality Facility, 316*, as appropriate. Assistance with conservation practice standards is available at your local NRCS Field Office. Use all compost produced on the farm as a soil amendment on the farm. Apply the compost according to a nutrient management plan that considers the crop needs, timing and rate of application.

Adoption Requirements

This enhancement is considered adopted when the participant has established composting facilities for all of the organic waste on the farm and has actually begun composting.

Documentation Requirements

1. An inventory of waste products produced on the farm,
2. An estimate of the annual quantities of compost to be produced,
3. A location map showing the location of the composting facility(s),
4. A nutrient management plan for the land application of the compost,
5. A composting plan, and
6. Photographs of the composting facility.



United States Department of Agriculture
Natural Resources Conservation Service

IDAHO ADDENDUM 2012

Water Quality Enhancement Activity – WQL22

On-Farm Composting of Farm Organic Waste

Additional guidance for on-farm composting:

All waste produced on the farm will be composted, not to include any hazardous or household waste. Yard waste may be used. A composting plan should include the following information:

- Inventory of composting materials, including types of waste products and season of availability
- Target C:N ratio and the recipe needed to achieve this, based on the inventory above
- Target moisture content and temperature, and how the compost will be managed to achieve this target
- Odor management, if needed
- Leachate management for water quality protection, if needed
- Treatment needed for any runoff from compost pad
- Maintain records on how much compost is produced and where it is applied – a nutrient management plan should be used, and the compost should be sampled for nutrient content before application.

If the compost will be used on a certified organic system, records should be kept to document that the compost meets all NOP requirements.

Compost calculators available on the web or for free download (no endorsements implied):

<http://klickitatcounty.org/SolidWaste/fileshtml/organics/compostCalcAbout.htm>

<http://www.compostingtechnology.com/probesandsoftware/compostcalc/>

For additional information on composting, refer to the following:

Cornell University, *On-Farm composting handbook*.

http://compost.css.cornell.edu/OnFarmHandbook/onfarm_TOC.html

Michigan State University, *Composting animal tissue to recycle nutrients*.
<http://www.msu.edu/%7erozeboom/catrn.html>

Utah State University Extension, *The composting process*. AG-WM 01, 1995.
<http://extension.usu.edu/waterquality/files/uploads/PDF/agwm01.pdf>

Washington State University, *On-Farm Compost Systems*.
<http://organic.tfrec.wsu.edu/compost/ImagesWeb/CompSys.html>

Washington State University, *On-Farm Composting*
<http://whatcom.wsu.edu/ag/compost/mrconfarm.htm>

**This activity may NOT be used with the following enhancements:
AIR08, ANM21, ANM23, WQL14**

**Potential Duplicate Practices:
316 – Animal Mortality Facility, 317 – Composting Facility**