

**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 produced from agricultural operations. Composted products must be reused on the farm. This includes all animal manures, livestock mortality, 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, leaves can be included but are not required to be included.

**Land Use Applicability**

Cropland and 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.

**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. Compost area to be sized according to organic material being generated
2. Runoff must be diverted from compost pad



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3. Runoff from compost pad must be directed through a grass buffer strip or other means to prevent water quality impairment

Conduct composting operations in accordance with NRCS Conservation Practice Standards *Composting Facility, 317* and *Animal Mortality Facility, 316* as appropriate. 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.

**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. Composting Plan



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## IDAHO ADDENDUM 2011

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#### *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
- 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:

ATTRA, *Farm scale composting resource list.*

<http://www.attra.org/attra-pub/farmcompost.html>

Michigan State University, *Composting animal tissue to recycle nutrients.*

<http://www.msu.edu/%7erozeboom/catr.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:  
ANM21, ANM22, ANM23, SOE02, WQL14**

**Potential duplicate practices:  
316 – Animal mortality facility, 317 – Composting facility**