

Poultry Carcass



Composting



This sheet details the process of composting normal mortalities.

Problem: All poultry producers face the burden of on-farm carcass disposal. Many methods have become too expensive to be economical. Environmental regulations have also narrowed the options. What can producers do with mortalities?

Solution: Carcass composting is an environmentally sound disposal method that reduces pathogens and converts organic matter into a stable, humus-like product. Beneficial organisms transform organic wastes into compost.

What's Required?

- A composting bin, a carbon (C) source, cover material, and something to mix the bin.
 - ◇ Common C sources are wood shavings, wood chips, and sawdust.
 - ◇ Common cover materials are poultry litter, poultry cake, and cured compost.

How It Works:

- Microbes need a proper mix of Carbon and Nitrogen (C:N 25:1 to 30:1), 50% moisture (damp to touch, but no drips), and adequate oxygen (O₂).
 - ◇ Carcasses are high in N. Surrounding them with a C source stimulates microbes to grow.
 - ◇ A carcass is mostly water. Most of the moisture needed to start the process is in the carcass.
 - ◇ O₂ comes from the air during pile construction, through the walls of the bin, and from turning the pile.
 - ◇ In order to kill pathogens, the pile should heat to over 130° F for at least 20 days with at least one turn of the pile.
 - ◇ It may take up to six months of composting to make “cured” compost.



Rule #1 of Making Quality Compost

Let the pile heat to 130°F for at least 20 days with at least one turn.

Rule #2 of Making Quality Compost

Cover every single bird the moment it is laid to rest.

This handout is based on OSU Factsheet BAE-1769, *Managing Three-Bin Composters for Poultry Mortalities*

Don't lose those nutrients, RECYCLE them!

Poultry producers, going green the OSU way!

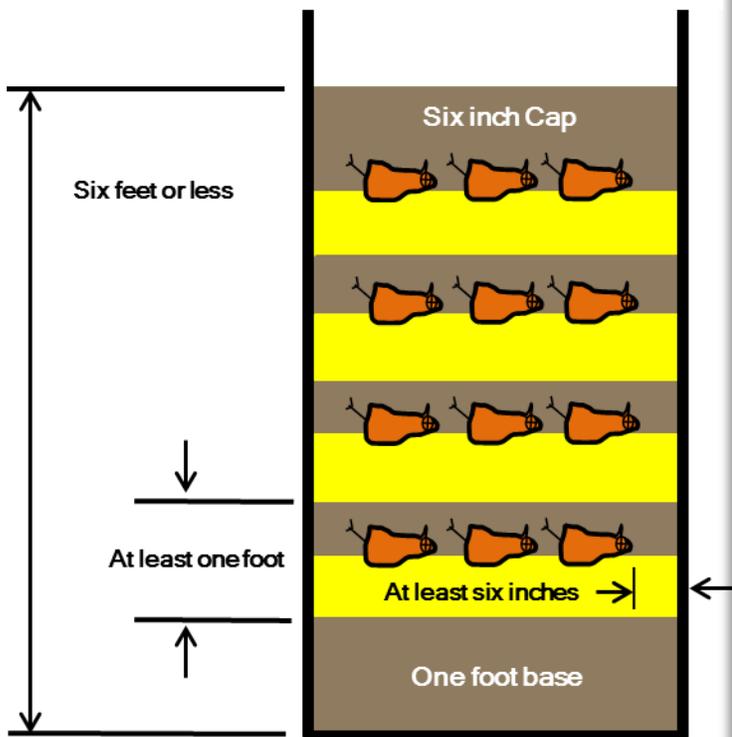
CARCASS COMPOSTING BENEFITS

- Fulfills Regulations
- Creates positive public perception
- Reduces disease transmission
- Reduces soil, water, & air pollution
- Produces beneficial by-product



COMPOST MATERIAL C:N ratio

Wood shavings	640:1
Sawdust	442:1
Wheat straw	127:1
Rice hulls	121:1
Broiler cake	14:1
Broiler litter	8:1
Animal carcass	5:1



Steps for Proper Poultry Carcass Composting

1. Construct bin at chosen site.
2. Prepare a 12 inch deep base of poultry litter, cake, or cured compost.
3. Add at least 6 inches of carbon material (sawdust, wood shavings etc.) on top of the base. Larger birds need a thicker carbon layer.
4. Place carcasses on top of the carbon layer and at least 6 inches away from sides.
5. Cover carcasses with a layer of litter, cake or cured compost. Cover birds as soon as they are laid in the bin. Do not leave carcasses exposed.
6. Repeat steps 3 5 until the material in the bin is about 5 ft. high
7. Cap the final layer with an additional 6 inches of poultry litter, cake, or cured compost.
8. Monitor temps daily using a 36 compost thermometer. When temperature drops, turn or move the pile to a new bin mixing and aerating the contents.
9. If the pile does not reheat after mixing, you may need to add moisture to the pile.
10. Turn again or move to a curing pile when bin temperature drops below 130 °F a second time.
11. Properly composted carcasses should have no flesh, bones or identifiable parts.
12. To properly land apply the material, you may need to let the compost cure for as long as six months. Continue to monitor temperature, mix, and add water when necessary.

Tips and Tricks

- ♦ Temperature is an indicator of happy microbes: High temps = Happy, Hungry Microbes!
- ♦ When the temperature falls in a new compost pile, one or more ingredients (usually O₂ or H₂O) may be lacking.

For any additional information contact

your local OSU County Extension Office

