



## Composting flood-related animal mortalities

# FACT SHEET

Hurricane Floyd inflicted tremendous damage to North Carolina's agricultural sector. As of Sept. 24, 1999, confirmed mortalities totaled 30,500 hogs, 2.5 million poultry and 760 cattle. Traditional means of disposal for large number of disaster-caused mortalities have been incineration or burial.

Composting is a viable method for handling poultry and swine mortalities with less potential environmental impact than incineration or burial. Expenses incurred in composting animal mortalities may be reimbursed from the Emergency Watershed Protection program of the USDA's Natural Resources Conservation Service (see your local Cooperative Extension Agent for information). Swine mortality composting is now an approved disposal method in North Carolina. Contact the North Carolina Department of Agriculture Veterinary Division at (919) 733-3986 for more information.

Composting is defined as the controlled decomposition of organic materials. The composted material is odorless, fine-textured and low-moisture. It can be an excellent source of organic matter, nitrogen and other nutrients. It can easily be applied to fields in the spring with a standard manure spreader. Locate a mortality composting facility in a well-drained area, such as flat crest of high ground. Keep the facility away from flooded areas, wells and residences. The site should have all-weather access.

Composting requires a balance between carbon, nitrogen, water and oxygen. Carbon is obtained from bulking agents. Nitrogen is obtained from the mortalities and litter, if available. Use about 100 cubic feet of bulking agent for every 1,000 pounds of mortalities. The ideal bulking agent is sawdust. Other bulking agents can be straw, hay, silage, bedding or litter.

Composting consists of two stages: a primary, high-temperature active composting stage in which pathogens and disease organisms are killed; and a secondary, lower-temperature curing or stabilization stage. How long a composting mix stays depends on how the compost is made.

Compost can be made in bins (or in portions of hen houses or hog houses) or it can be made in windrows. Bins can be constructed of wood or of round hay bales laid end to end. Bins should be sized to provide two cubic feet of composting space per pound of mortality (for poultry) and to provide 20 cubic feet of space per pound (for swine and cattle). Windrows are long triangular-shaped rows of composting materials. They should be about 10 to 12 feet wide, five to six feet tall and as long as needed. A windrow 12 foot by six inch high will hold approximately 300 pounds of mortality per foot of length.

For more information, obtain a copy of the full guidance document on animal mortality composting at <http://www.p2pays.org/ref/03/02748.pdf>. For technical assistance, please contact your local Cooperative Extension Service agent or Brian Rosa, N.C. Division of Pollution Prevention and Environmental Assistance, at (919) 715-6524.

**N.C. DIVISION  
OF POLLUTION  
PREVENTION AND  
ENVIRONMENTAL  
ASSISTANCE**

(919) 715-6500  
(800) 763-0136



The N.C. Division of Pollution Prevention and Environmental Assistance provides free, non-regulatory technical assistance and education on methods to eliminate, reduce, or recycle wastes before they become pollutants or require disposal. Contact DPPEA at (919) 715-6500 or (800) 763-0136 for assistance with issues in this fact sheet or any of your waste reduction concerns.

DPPEA-FY03-38