

Landowner \_\_\_\_\_

## Dead Bird Composting

### DEALING WITH POULTRY LOSSES

Mortality is a normal part of poultry operations. Composting is an efficient and effective method of disposing of poultry losses.

### BEFORE DISPOSAL BEGINS

Proper disposal of carcasses is important to prevent livestock disease transmission and to protect air and water quality. The Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) requires licensed confined animal feeding operations (CAFO's) and registered poultry feeding operations to have plans for handling losses of normal mortality and catastrophic losses.

### COMPOSTING

A mixture of straw, litter and birds are used to dispose of poultry carcasses in a manner that does not create odor, fly, or scavenger problems. High temperatures are created during the decomposition process which destroys pathogenic bacteria.

### COMPOSTING FACILITIES

A proper composting facility is an essential component to managing dead animals. NRCS has developed standard plans and drawings for sizing and constructing compost facilities. More information on these compost facilities is available at your local NRCS or Conservation District office.

### WHAT YOU WANT TO DO

Proper layering of carcasses and a correct composting recipe is critical to successful composting.

- The bottom layer should have 12" of litter, rice hulls, or wood shavings on a concrete floor.
- Alternate the following ingredients in layers:
  - 1/10 part – rice hulls/ wood shavings/straw
  - 1 part – dead birds
  - 2 parts – litter
- Birds should be layered only one deep and 6" from the edge of the bin on all sides.

- Keep layers covered with litter to avoid fly and scavenger problems.
- When bin is full cap it off with at least 6" of litter.
- Monitor the temperature of the bin.
- The temperature will reach 130-150 degrees Fahrenheit about five days after the bin is full. The temperature will begin to fall after 7-10 days in the maximum range.
- When the temperature has dropped about 20 degrees Fahrenheit from the peak, the material should be transferred to a secondary bin.
- The transfer will mix the material and provide oxygen for the second heat cycle.
- When the temperature begins to drop in the secondary bin, the material can be moved to a storage area where it can go through a third heat cycle, or it can be applied to the land.
- Allow the compost to go through at least two heat cycles before land application. Three cycles will further the decomposition.

### WHAT YOU DON'T WANT TO DO

- Do not add too much water. Water content should be at 40-60%. Too much water stops the decomposition process, leading to odor and fly problems.
- Do not let the compost dry out too much! Too little water will slow the decomposition process.
- Do not add exotic ingredients. Litter, birds, straw, and rice hulls are proven ingredients. Using anything else is experimental on your part.

### TURKEY COMPOSTING

Many turkey producers are faced with the additional problem of trying to compost much larger birds. Tom turkeys used for breeding can weigh as much as 70-80 pounds. Composting of turkeys of this size is very much the same as the process described above, but the time it takes to achieve decomposition is greater with these larger birds. A change to the process

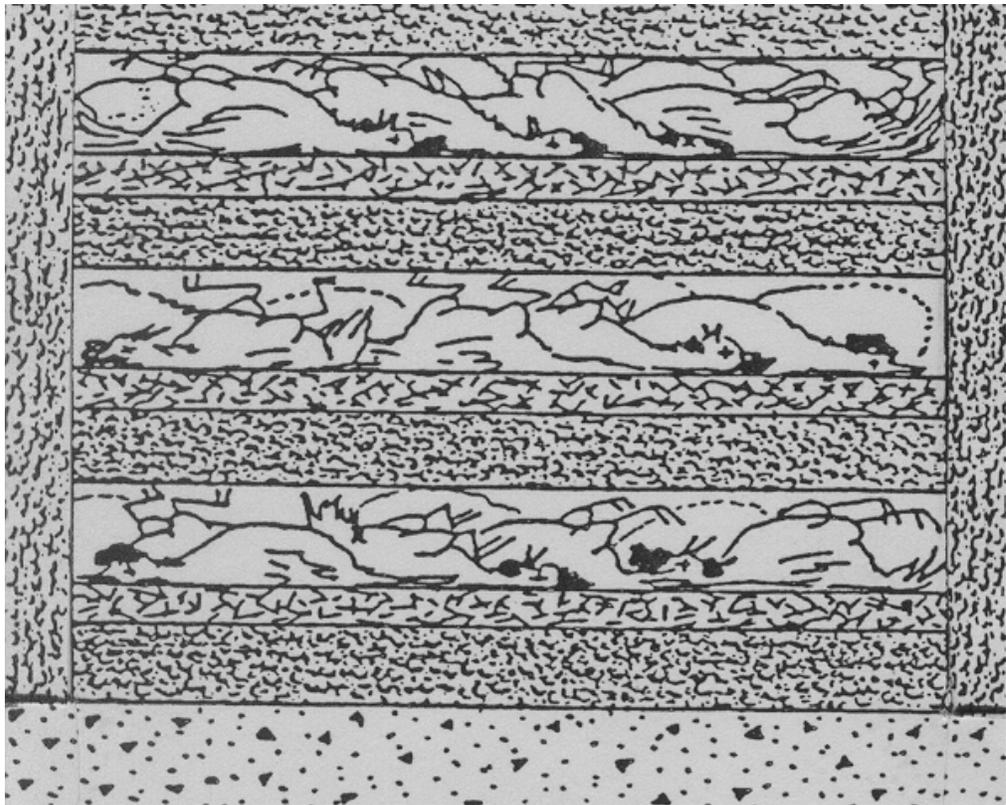
described above would be to layer the turkeys with 12 inches instead of 6 inches of litter when layering the birds and make sure that all birds are at least 6" from the side walls. You should observe a relatively quick heat up to 150-160 degrees Fahrenheit and then it will drop to 130-135 degrees where the temperature will remain longer than with the smaller birds. When the temperature drops to 120 degrees Fahrenheit or less, it is time to move the compost to a secondary bin. You will find that you must leave the larger birds

in longer and probably will need to move them again to another bin for oxygen replenishment.

This process with its additional composting time should allow you to achieve proper decomposition of the larger turkeys. If carcasses are noticed to not be decomposing entirely, allow the compost pile to remain longer before land applying.

### Cross Sectional Drawing of Compost Bin

- Litter**
- Chickens**
- Straw**
- Litter**
- Chickens**
- Straw**
- Litter**
- Chickens**
- Straw**
- 12 inches  
of Litter**
- Concrete  
Floor**




---

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write the USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14<sup>th</sup> and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

---