Chicken Stew—Well, Not Exactly by Julie A. Best, Public Affairs Specialist, USDA-Natural Resources Conservation Service, Auburn, AL

When you talk with Ray Hilburn of Hilburn and Sons Farm near Luverne, AL, you soon learn that he knows a lot about chicken bones. He was raised in the shade of chicken houses. His dad had an egg route in the late 40s and 50s, and in 1959 he built a hatchery. Today, Ray and his four brothers are carrying on the tradition. Their focus now is broilers.

Ray's responsibilities with poultry are two fold—he is in partnership with his brothers on the family farm and he is the Poultry Program Director with Alabama Department of Agriculture and Industries. According to Ray, an unfortunate reality of poultry production is death loss. The disposal of big birds is a challenge since the producer may lose a large number of birds per day toward the end of a flock. Poultry producers should handle the disposal of dead birds properly in order to prevent the spread of disease, avoid possible contamination of surface and ground water, and minimize odor and fly problems. The disposal system used on the Hilburn and Sons Farm is composting. According to Ray, composting of big birds is a system that works very well if the procedure is done correctly.

Spread a single layer of birds in the composting bin.

The process begins in the **primary composting bin**, usually a 5 foot by 10 foot by 5 foot bin in which fresh carcasses are placed. The first layer in the bin is a 6 to 12-inch layer of litter or sawdust. This material serves as a sponge to absorb liquid generated by the

decomposing process. Carcasses are placed in one single layer and not piled on top of each other. This prevents "wet spots" in the bin. The birds must not be placed any closer than 6 inches from the walls of the bin. This layer is completed by covering the carcasses with at least 6 inches of litter so that fly larvae, pathogenic bacteria, and viruses are destroyed through the combined effects of time and temperature. The layering process continues by adding another layer of birds, which are always covered with litter to complete the layer. When the bin is full, it is capped with another 6-inch layer of litter. The bin will begin to heat and should reach a temperature of 125° to 140°. A long stemmed thermometer should be used to check the temperature. In about 15-21 days, the temperature will begin to drop. The next phase of the process should begin now, while the active bacteria count is still high.

When done properly, there will be no exposed birds on the sides of the composted material.

When the temperature begins to drop in the primary bin, the composting material is moved to the **secondary bin.** This mixes the material and adds oxygen which causes the decomposing process to start again. When filled, the secondary bin should be recapped with a fresh 6 inch layer of litter. The temperature should rise again to 130° to 140°. Again,

the temperature should be monitored with a thermometer. When the temperature begins to drop in the secondary bin, the process is nearly done. The entire composting process will take approximately two months. The compost is now ready to spread.

Predators may be attracted to the composting material, and should be kept from digging in the composter. Chicken wire works great as a barrier.

There are numerous approved ways to dispose of big birds—incinerators, permit to renderer or landfill, freezers, and any other method approved by the State Veterinarian. The composting system will work if the process is done properly. "It's not the system that doesn't work; it's the fact that the procedure is not used properly that causes the process to fail," says Hilburn. "The producer should look at all the options and determine which system is best for that specific operation. It's similar to the difference between a car and a horse and buggy—the horse and buggy will get you to town, but the car will get you there faster. Which system do you prefer? What are you willing to pay?" The advantages of the composting process include:

- The system will work with normal mortality during all seasons of the year.
- Composters can be constructed by the farm owner at a reasonable cost for materials. They must be constructed according to the recommendations of the Alabama Cooperative Extension System or specifications of the USDA-Natural Resources Conservation Service.
- The process fits into the everyday management chores of the broiler farm.
- There are no offensive odors where composters are operated properly.
- There has been no documented danger to people and no danger of spreading poultry diseases provided dead birds are not hauled off-farm before composting.
- The end product is valuable and safe to use as a soil amendment.

USDA-Natural Resources Conservation Service has guidelines for construction of compost bins. Cost-share funds are also available to help off-set the cost of construction. Composting may be a waste management system that will work for you. Contact your local USDA-Service Center for more information.

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