

Composting Is Possible Solution To Dead Bird Disposal

BY LISA RISSER

LANCASTER — Disposal of dead birds is a growing concern among poultry producers. Conventional methods are becoming too costly, inefficient, and environmentally suspect.

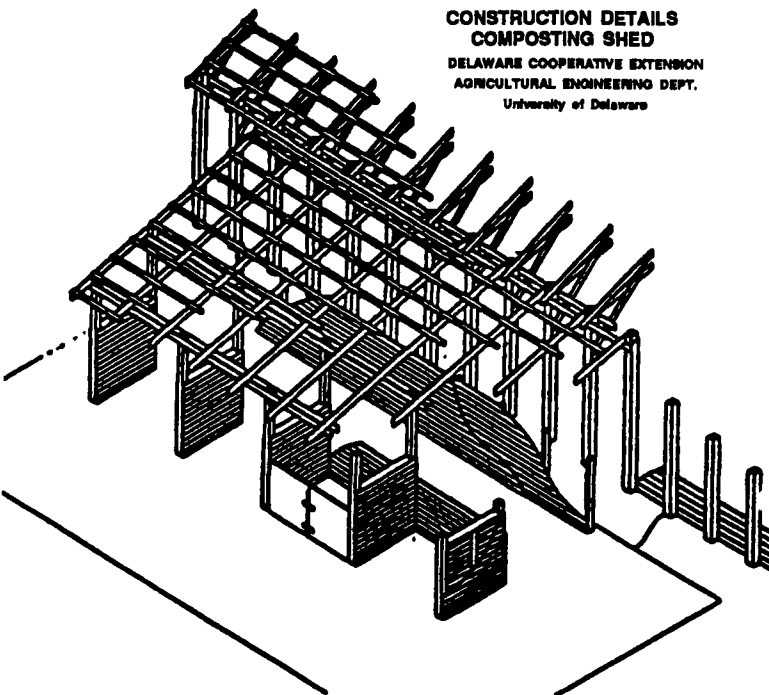
Composting was the solution discussed at Poultry Progress Day last week by George Chaloupka, director of the University of Delaware's Research and Education Center. Composting is currently being explored by industry researchers in the Delmarva area.

The goals of the project, which is being carried out by the University of Delaware, University of Delaware extension, and University of Maryland, were to find a system that worked with a normal, year-round, mortality rate; fit a farmer's budget and into his daily work routine; was odorless and didn't attract flies; and produced a good fertilizer.

A shed was built that would handle 1,000 pounds of dead birds per day, an amount which would suit the needs of a producer with a flock of 150,000 to 250,000 birds.

The raw materials for the compost included straw, cake chicken manure, dead birds, and water. The amounts used, in layering order, were 1 part chicken carcasses, 1/2 parts cake manure, 1 part straw, and 1 part water.

Before filling a section, a 6- to 12-inch layer of manure was spread on the concrete floor to absorb excess water. The birds were weighed prior to composting



so that the other amounts could be determined.

Within seven to 10 days later, once the internal temperature had reached 140 to 165 degrees and started to drop, the pile was moved to a second confinement area for reheating. This activity mixed up the compost and added oxygen, both necessary to the composting process. About one week later the compost was ready for spreading or storage.

The project's researchers found that the cost of the shed, complete with concrete slab, was \$5,000, a

figure that would change depending on the building's size. The farmer, using a skid steer loader, spent about 20 minutes a day working with the compost excluding time spent in collecting the dead birds.

The final product was a compost that contained little evidence of its original materials, with the exception of a few feathers and bones. It was odorless and didn't attract flies. Organisms such as E. coli and salmonella didn't survive the process.

Research is continuing on the

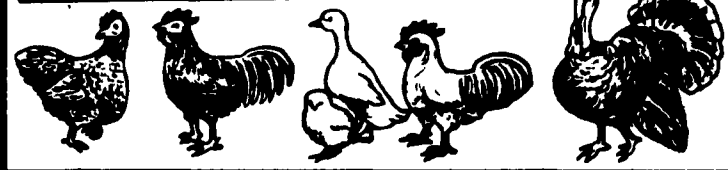
composting process to find out the compost's nutrient content, other sources of carbon, and marketing options.

"It may not be for every producer," said Chaloupka. "But the industry feels that it may become a practical solution."

Broiler and Turkey Talk

by Forest Muir

Associate Professor of Poultry Science Penn State University



HOT WEATHER AND THE BROILER HOUSE

BY FOREST MUIR

Professor of Poultry Science

Bird comfort is extremely important for maintaining productivity. Preparing the broiler house for summer conditions includes servicing the ventilation system and servicing or installing a misting evaporative cooling system.

SERVICING THE VENTILATION SYSTEM Inlets

Inlet openings are the entry point of fresh air into the poultry house. The air intake openings should be covered with screening of a size that will prevent wild birds from entering the building. The ventilation fans should always be pulling air through this screening. Thus, dust, feathers or other debris caught by the screening will not normally fall away. They only serve as obstructions to entrap additional material. This screening should be cleaned and maintained dust free to allow maximum air flow when needed.

Fans

Fans are the heart of the ventilation system. Establish a regular schedule for servicing the fans during the summer months. Proper maintenance can increase the air delivery capacity of a fan by as much as 30-40 percent. Proper fan maintenance includes:

- checking to make certain all fans are operational and have been lubricated if required.
- cleaning the fan blades, orifices, and motors.
- cleaning and lubricating (use graphite) the fan louvers.
- adjusting belt tension and replacing belts as necessary.
- stocking spare replacement fan belts.

Controls Dust should be removed from the sensing units of thermostats. Dust on these sensing units can act as an insulating agent and reduce thermostat sensitivity. Most broiler air inlet systems are regulated by automatic inlet controllers. These controllers use a manometer as a sensing device. The manometer in these units should be serviced. This includes checking the fluid level and calibrating the zero setting. Adjust the automatic inlet controller to maintain a .04-.06 static pressure in the building. Check the high temperature alarm to make certain it is operating properly.

COOLING SYSTEMS

If the broiler house contains a misting evaporative cooling system, this system should be serviced as follows:

- remove all nozzles and soak

for 10-20 minutes in approximately an 8 percent solution of hydrochloric acid. This can be prepared by diluting common swimming pool muriatic acid 3:1 with water. Dilute the acid in a plastic or glass container. DO NOT USE A METAL CONTAINER. WARNING: ACID IS CAUSTIC - DO NOT GET IN EYES, MOUTH OR ON SKIN.

- remove nozzles from solution and rinse with water.
- replace nozzles.
- service the pump in accordance with the manufacturer's recommendation.

If you have not installed a misting evaporative cooling system in your broiler house and are considering such an installation, the following is suggested as a guide:

- a water supply in addition to that required for drinking purposes will be needed. The quantity of water required for the evaporative cooling system can be estimated by dividing the square footage of the house by 200. The answer estimates the gallons of water needed per hour.
- the misting system should be operated at a pressure of 200 psi to produce a water particle size needed for rapid evaporation. This necessitates a booster pump capable of increasing normal line pressure to the desired 200 psi.
- a 100 mesh filter should be installed to prevent particles from entering the misting system and plugging the nozzles.
- a pressure regulator is needed to maintain the operating pressure.
- corrosion resistant piping should be used to supply water to the misting nozzles. Rigid plastic pipe appears to be a good choice. Check with the supplier to assure the pipe can withstand a pressure of at least 200 psi.
- a drain should be provided so that water can be drained from the system when not in use.
- misting nozzles with a capacity of 1 gallon of water per hour at 200 psi should be used. The nozzles should be located near the inlets and the fog from the nozzles should be directed away from obstructions to prevent the fog from condensing before it has a chance to evaporate.
- after the pipe is installed, the system should be flushed thoroughly before the nozzles are installed to remove any debris from the line.

A small investment now in maintenance of the ventilation system and/or installation of a misting cooling system can pay big dividends when the first hot weather arrives.

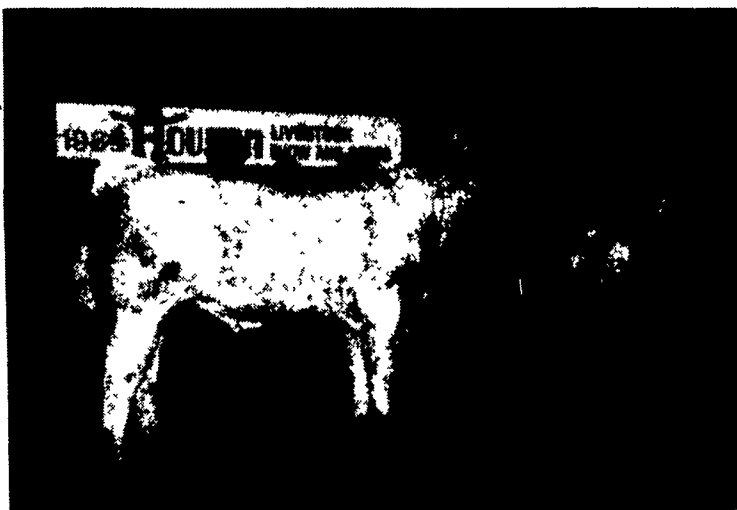
Texas Charolais Show Champion Is Dempsey Daughter, High-Rise Son

HOUSTON, Tx. — Good weather, a great crowd and a strong 97-head show combined for a successful conclusion to Charolais activities held in conjunction with the Houston Livestock Show & Rodeo in Houston, Texas, Myron Graff of Osceola, Iowa, judged the 57 females and 40 bulls led out on February 24 in the American-International Charolais Association (AICA) Roll of Excellence show.

In the bull show, Graff selected an entry from Triple R Ranch of Franklinton, N.C., and Fox Hollow Farm of Tulsa, Okla. The bull, FH-RRR Sequoia 148, is an April 3, 1988, son of Silver Creek High-Rise. He stood as grand and junior calf champion bull. The reserve grand and intermediate champion bull was LK Colorado Cowboy 7135. The 1987 son of BR-MF Krugerrand T752 was exhibited by Dewey Charolais Ranch of Cimarron, Kan., and Thomas Ranch of Harold, S.D.

Perfections Tally II ET, shown by Willard Walker of Springdale, Ark., stepped into the champion's circle as grand and senior calf champion female. She is a 1987 daughter of BR-MK Krugerrand T752. Retherford Ranch of Prescott, Ariz., and Shallow Creek Charolais of Madisonville, Texas, exhibited the reserve grand and senior champion female, Yava's Elaine 702. The female is a 1987 daughter of Roxy's Jack Dempsey 63R.

Other champions in the bull show included the reserve junior calf champion, Omega Pontiac 8026 X ET, a March 4, 1988, son of BR-MF Krugerrand T752 owned by Christine R. Simmons and Omega Farms of Williamston, Mich. The senior calf champion



FH-RRR Sequoia 148, an April son of Silver Creek High Rise, was selected as grand champion of the Charolais Show at the Houston Livestock Show & Rodeo. The owners of Sequoia are Triple R Ranch of Franklinton, N.C., and Fox Hollow Farm of Tulsa, Okla.



The grand champion female of the Charolais Show at the Houston Livestock Show & Rodeo was Perfections Tally II ET, a senior calf. Tally is owned by Willard Walker of Springdale, Ark.

was BCC El Padre 679, a 1987 son of BR-MF Krugerrand T752 owned by Bragg Cattle Co. of Harlingen, Texas. The reserve

senior calf champion was BAB Turbocharger W48 ET, a 1987 son of WC Highstyle 5053P owned by

(Turn to Page D4)