

Turkey Farming The Right Fit For Eckert Family

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"We went to banks and tried to estimate the cash flows on steers, pigs, dairy, and chickens, and this seemed to work out as the best match for price-per-income," said Kelly.

The size of an available farm, 20 acres, made farming affordable and opened the door for turkey farming in 1997.

"Everything was running, we just walked in and took over," said Kelly.

Although Heidi grew up on a small poultry operation in Ohio, Kelly was new to the poultry business. Consequently he spent a month at the turkey farm with the previous owners to learn how to manage the farm.

"I got the basics down that I could survive on, and just keep getting better as I go," he said.

The turkeys, which come to the farm when they are one day old, will leave the farm as finished birds 13 weeks later. The Eckerts process six batches of turkeys per year through their barns. They grow their turkeys under contract with Wampler Foods in New Oxford, Pennsylvania. Wampler Foods supplies the feed, medication, birds, and shavings for the barn floors and the Eckerts supply the labor for care of the turkeys.

Because of the current demand for turkey, the barns are filled with turkeys year-round. "Years ago, people did one flock a year for Thanksgiving, but turkeys got more popular. It's not just a treat anymore — you can get turkey any time,"



No cold turkey on this farm — one batch of 16,000 turkeys requires 6,000 to 8,000 gallons of gas during their stay at the farm, mostly to maintain the balmy 80-degree temperature necessary when the birds are poults.

said Kelly. "The turkey market's really strong right now."

"Turkey meat is nutritious and low in fat and people are really health conscious anymore," said Heidi.

Caring for turkeys, as typical of any agriculture operation, is a full-time job. The water fountains are washed every day for proper sanitation, and all of the birds must be checked several times daily and through the night. The Eckerts rototill the litter once a week to keep the turkeys' bedding fresh and put in new shavings in and sanitize the barn for each incoming batch of poults.

In addition, the barns' ventilation system is changed manu-

ally three to four times daily. Shutting flaps and curtains controls the speed of air flow and consequently the temperature for the turkeys.

Changing ventilation involves watching the gauges and adjusting accordingly to ensure not only proper temperature but also keep down the ammonia levels detrimental to turkey health. An alarm system rings the phone in the Eckert's home if the temperature drops to dangerous levels or the electricity goes off.

The feeding, fortunately, is automatic. The first seven days, however, after the poults arrive at the barn they are fed by hand. Feed is scooped into the small trays for the poults. As the poults grow and are able to reach, the automatic feeders with pelleted feed are lowered from the ceiling. Rings surround the poults and keep them not only snug in their 80-degree atmosphere, but also keep the birds from crowding together too much, according to Kelly.

The poults, which arrive at the farm in batches of 16,000, come to the farm from a Wampler hatchery in Harrisonburg, Va. They are started in two brooder barns and moved to the four finisher barns as they mature.

The Eckerts move the poults out of the end of the building onto a ramp which leads onto a trailer. The trailer then hauls the birds up the hill to the finisher barns. Each barn is 40 by 200 feet.

When the finished turkeys leave, they weigh 13-16 pounds each, usually 16, said Kelly.

"We haven't had trouble with health because we maintain biosecurity," said Heidi.

"When somebody comes from a farm, we spray the vehicles tires, fender walls, and undercarriage," said Kelly.

Mortality cards, feed slips, and feed conversions are the records which the Eckerts keep for the operation. Kelly checks the feed and gas levels every other day.

The Eckerts would like to expand with numbers in both the turkey and swine portions of their farm. "We'd like to get to the point where we can have all our children have farms," said Heidi. "Hopefully they'll have interest. Age and time will tell."

Kelly, who hopes to get out of the hauling business, plans to triple the size of the hog operation in the next year. Katie, an aspiring veterinarian and already an important part of the Eckert operation, is proving her interest in the agriculture business. A fourth grader at Jonestown Elementary School, Katie takes care of the



Katie, who would like to be a veterinarian, is already an experienced animal handler. Her brother, Kevin, is quickly learning the ins and outs of producing turkeys.



The best part of turkey farming, according to the Eckert children, is getting a shipment of new poults. Kevin, 2, and Keith, 3, carefully cradle one-day-old poults. The boys' father, Kelly, describes the birds as "very nosy and curious."

pigs, 30-40 goats, and helps with the turkeys. Besides helping out on the family farm and completing her schoolwork, she is also actively involved with the North Mountain Goat Club.

Kevin and Keith, proud wearers of green John Deere hats,

enjoy riding on the tractor. "I think the farm is good for children to learn a work ethic," said Heidi. "Sometimes children get too involved with TV or video games, and farming is a good way to show them what a good work ethic is."

How Is Organic Matter Content Measured?

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Why do we need to concern ourselves with the amount of organic matter that is present in wastewater?

It is important to know what the organic matter content of a waste stream is because it influences the selection of a suitable method of wastewater treatment and disposal.

Other important wastewater characteristics that must be considered when selecting a treatment method include the rate of production and the levels of solids and nutrients such as nitrogen and phosphorus.

Example: A food processor is exploring sprinkler irrigation as a potential method for treating and disposing of the processing wastewater because several sites with appropriate soil characteristics are available for irrigation.

However, if some wastewater components are present at high levels, irrigation may not be possible. For example, excessive suspended solids in the waste may clog irrigation equipment and soils. High levels of salts can also sometimes be a problem, although normal rainfall in the Mid-Atlantic region is generally sufficient to leach salt out of the soil.

Nutrient management plans, which are required by the Water Quality Improvement Act of 1998, may also limit application on the basis of the nitrogen and phosphorus content of the wastewater.

Finally, consideration must be given to the organic matter content of the wastewater because high loadings of organic matter can cause excessive build-up of soil microorganisms that grow on the applied organic material.

This can cause a microbial slime layer to form on the soil surface, which can lead to soil surface clogging, and in turn, surface ponding, unpleasant odors, and vegetation decay.

Because organic matter can play such an important role in determining the success or failure of wastewater treatment methods, permits from the Maryland Department of the Environment for land application or surface discharge of processing wastewater define limits for the amount of organic matter that can be applied.

These permits also define nutrient and other parameter limits, as well as hydraulic loading rates and application schedules.

What is actually measured when we quantify the organic matter in wastewater?

Frequently, we do not need to know the concentrations of individual organic compounds present in wastewater. Instead, it is often sufficient to have a combined measure of the mixtures of organic compounds found in wastewater. Two of the most commonly used measures of the combined organic content of wastewater are expressed in terms of oxygen demand.

These two measures are called the biochemical oxygen demand (BOD) and the chemical oxygen demand (COD). At first, use of the term "oxygen demand" to report organic matter content may seem confusing. This convention is used because most organic compounds in water undergo oxidation reactions, and if dissolved oxygen is present, these reactions con-

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