



Full house

This kind of full house will never win you a hand of poker, but it could keep a family of five eating turkey for years. This is one of the many barns owned by Tarheel Hatcheries. This barn has a concrete floor covered with wood shavings and is cleaner than some people's houses. Everything in this barn is thermostatically controlled.

Even the shades on the windows are hooked into the thermostat circuitry and if it gets too cool in the barn, the sides go down to retain heat.

Hoke hatchery provides Thanksgiving fare

By Ed Miller

Turkey has been called the All American food.

Of course The House of Raeford is familiar to most Hoke County residents; however, the question keeps popping up: "Where do all those turkeys come from?"

Many of "all those turkeys" come from the fourth largest industry in Hoke County, Tarheel Hatcheries, which employs 120 workers.

Many of the turkeys eaten in the United States this year on Thanksgiving will have been bred, hatched, raised, slaughtered and dressed in Hoke County.

About 108,000 poults (baby turkeys) go through the two hatchery units of the business each week, according to Tarheel Hatcheries owner Wyatt Upchurch.

With a hatch rate of about 74%, it means that about 150,000 eggs must be incubated to get that many poults.

With an expansion in the making, Tarheel Hatcheries could make Hoke County very important in turkey production in North Carolina, the top turkey producing state in the country.

By the summer of 1985, 160,000 poults will be developing in the company's incubators each week. That means about 215,000 eggs per week will have to come from the egg suppliers and laying farms.

The company has seven farms in Hoke County and eggs and breeding stock is obtained from other places in North Carolina and California.

Company farms are spread

around throughout the county.

None of them are too close together because of disease control purposes.

As a matter of fact, if one is invited to visit a Tarheel farm, just getting into the gate will bring unexpected precautions.

The tires of all vehicles are disinfected before going onto a farm where small birds are being raised.

Getting out of the car will also prove to be a new experience because everyone wears plastic boots over their shoes to prevent the spreading of germs.

For folks who have been on a farm and remember the not so pleasant smell of the chicken yard, a Tarheel farm will be a nice surprise.

There is no smell at all, good or bad.

Walking inside a shed is no different.

With or without birds in the building, there are clean wood shavings on the floor and a comfortable atmosphere, even for humans.

The atmosphere for turkeys is ideal.

Most all the variables inside the barns are controlled by thermostat.

Of course, the temperature is controlled and, at regular intervals, sprinklers are turned on to keep down dust in the barns.

There are mechanisms in the barns that control the amount of light allowed inside and the amount of air that passes through the barn.

Light is very important to

growers, especially where female turkeys are concerned.

Young female turkeys must be kept in the dark to hinder sexual development, Wayne Willis, Tarheel Farm Supervisor said.

The sexual development of male turkeys is controlled by diet, Willis said.

Possibly the most interesting part of the operation is at the beginning point of the lives of the turkeys.

The process that an embryonic turkey goes through while still in the egg is possibly more complex than that of a human.

When eggs are gotten in at the hatchery, they are first crated and the crates are stacked in a large basket.

The basket, containing 4,000 eggs, is then pressure dipped into a large vat of antibiotics and other chemicals all mixed together.

According to the firm's owner Wyatt Upchurch, turkey egg shells are not water proof.

When the eggs are dipped, the air is sucked out of them and the vitamins, vaccines and antibacterial agents go through the shells to the unhatched turkeys.

After a period in the "bath," the eggs are taken out and dried.

They are then arranged in baskets lined with straw and stacked in incubators.

There are 20 incubators containing 158,000 eggs per week.

Inside the incubators, every possible variable is controlled.

Temperature and humidity are strictly controlled and all incubators are hooked to an alarm

system that sounds when something is not right.

Temperature in the incubators is a constant 98 degrees and the humidity is kept at 86%.

The eggs are also turned by a compressed air mechanism every hour to prevent the embryos from sticking to the sides of the shells.

The eggs stay in the incubators for 25 days.

The eggs are then transferred into the hatcheries where they will stay for another two days and 14 hours.

Temperature in the hatcheries is kept at 98°, but the humidity is upped to 94% to soften the egg shells and aid the baby birds.

In fact, the doors of the hatcheries are hooked into a computer system, and if a door is opened while the poults are inside, a readout is printed saying what time the opening happened and on which incubator.

Sanitation in the hatchery buildings is all important.

Plate tests are run every week on the incubators, the hatcheries and the dip solution to assure that no bacteria has contaminated the works.

Hatching time brings about all manners of new problems.

First the poults are removed from the baskets, and the unhatched eggs are examined to try to determine why they did not hatch.

According to Upchurch, all baby turkeys hatch with their heads under their right wings.

While still in the egg, the small turkey will put his head under his wing and start pecking at the egg

shell while at the same time turning a circle.

When the baby has made the complete circle, the top of the egg shell has been pecked off and the poult can push up and be free.

When the poults are removed from the incubator, they are taken into another part of the hatchery where the flap of skin that hangs down over the beak, the snoods, is clipped and the beak itself clipped to keep the birds from pecking each other.

The toenails of the baby birds are also clipped off to prevent the young birds from harming each other.

They are then again vaccinated and put into boxes to await sexing.

Early in the morning, the sexers arrive.

The Japanese people come in, sit down under bright lights and go to work.

As quickly as they can pick up a small turkey, they can tell what sex it is and the poults are thusly separated.

It costs about 1.75 cents to sex a bird but at the rate of 108,000 poults per week, costs add up.

The sexers are highly trained and highly paid specialists.

After the sex is determined, poults are shipped off to one of the farms.

Within 20 hours after the hatch, the young turkeys are on feed and water at a brooding farm.

Male and female poults are never put together because of the different controls placed on the environments of each sex.

The first six weeks of a turkey's life is spent in a brooder house.

They are then transferred to other barns where sexual development and growth rates are controlled.

When the birds are 20 weeks old, they are blacked out and kept in low lighting for 10 weeks.

The birds are then put on exactly 15 hours per day of light, either natural or artificial, to encourage sexual development.

The hens will start laying in 14 days and artificial insemination begins.

Each bird is inseminated once per week.

The birds will lay for about 24 weeks.

All eggs are picked up within five days of laying.

When this period is over, the birds are culled, according to Upchurch.

The best birds are taken out for "recycling" and the rest sold and shipped to The House of Raeford for processing.

Recycles go back into the dark out house for 10 weeks and then returned to the breeder farms where they will be put through another 20 week laying period, said Willis.

At the completion of the second laying period, the birds are marketed.

For the birds, the cycle is now over, but, not for the employees of Tarheel Hatcheries.

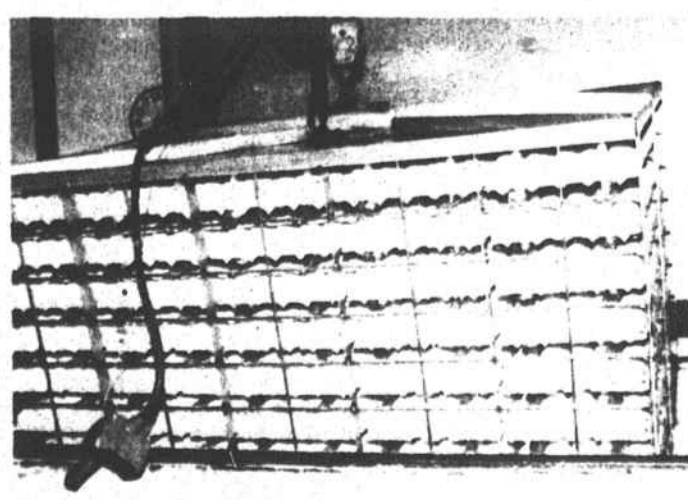
For them, the cycle is never over.

There will always be birds incubating, hatching and growing so that an All American food will always be available whether it's Thanksgiving or not.



Finding out why

Melissa Baker tries to determine why the turkey egg in her hand did not hatch. Baker will first determine if the embryo developed properly, and if it did, she will try and find out if there was some sort of infection within the egg that killed the baby. Baker is also in charge of running plate tests on the pressure dip solution and other parts of the operation. If contamination gets loose in the hatchery, the effect could close the operation.



Enough to stock a farm

This metal rack, containing about 4,000 eggs, is being submerged in the pressure dip tank. While inside the tank, the eggs will have all the air sucked out of them and, when the pressure is released, the eggs will suck back into themselves nutrients and antibiotics crucial to the production of healthy turkeys. In essence, turkeys raised by Tarheel Hatcheries are vaccinated while still in the egg.



Boy or girl?

This is a turkey sexer. Under the bright lights hanging from above, the sexer will take a quick look at the genitalia of the young birds and be able to tell a male from a female. The birds are then separated by sex. These sexers are not on staff at the hatchery. They travel all over the state sexing turkeys but stop by the Tarheel operation several times per week. It costs the hatchery about \$1.75 to do a box of turkeys or about 1.74 cents per bird, but there are a lot of birds.