Birth, Life, And Death of a Factory-Farmed Turkey
From Gracie Darlington, FFAC Factory Farming Alliance Coalition
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Image credit: Gabriela Penela / We Animals Media

In the last hundred years, the scale of turkey production has been radically transformed. In 1910, there were 870,000 farms raising 3.7 million turkeys, with an average of four birds per farm. In 2021, 2,500 farms in the United States produced over 216 million turkeys. In today's standards of turkey production, a family farm is considered relatively small even while raising around 50,000 birds over the course of the year. In 2020, the US turkey sector produced 5.74 billion pounds of ready-to-cook meat, amounting to $5.19 billion in revenue.

An estimated 99.8% of the turkey products available to American consumers come from factory farms. These commercial poultry facilities maintain standardized procedures to breed, raise, slaughter, and process their turkeys in order to promote efficiency, profitability, and biosecurity. This article will describe these procedures and assess issues of animal welfare that arise during turkey production.

In the Hatchery

Life for every factory-farmed turkey begins in the hatchery. A single incubator can hatch tens of thousands of eggs at once. A few hours after the birds break out of their shells, they are separated by sex and vaccinated. They are then put through a series of body modifications. The snood or fleshy appendage on top of the head of the day-old bird is removed, as it could be a pecking target for other birds. The feathers along the outer edge of the wingtip are trimmed to restrict flight behavior. The tip of the three forward-facing toes and the long claw on the back of the leg are amputated to minimize scratching injuries.

Although done in the name of future injury prevention, these husbandry practices are a major welfare concern for animal activists, especially because injurious pecking only occurs in crowded, barren

environments. These procedures are performed without pain relief, as anesthesia and analgesia for millions of day-old turkeys would be costly. Organic farms may forego beak and toe trimming.

Brooding Barn

Once the turkeys are a day old, they are transferred to the brooding barn. At this point in their development, the turkey weighs only a few ounces and can fit in the palm of your hand. When they are this young, the turkeys need a heat source to mimic the warmth of their mother and adequate nourishment to grow into market-ready size. Hundreds of chicks stay in a circular pen, which has food and water buckets spread uniformly throughout and a brooder stove hung in the center. Their water contains probiotics, prebiotics, antibiotics, vitamins, and electrolytes.

Finishing Barn

When they reach 4-5 weeks of age, the turkeys are moved from the brooding barn to the finishing or grow-out barn where they will live out the rest of their days, unless they are selected for breeding. To prevent E. coli and other infectious diseases from spreading, wood shavings should be treated before being put down for a new flock. In the finishing barn, one person looks over thousands or tens of thousands of birds. They use their eyes and ears to detect any strange or undesirable behavior and for health issues amongst the flock. Finishing barns are more crowded than brooding barns, largely due to the size of the birds. The average stocking density for hens is 2.5 square feet, and male birds typically get 4 square feet. These turkeys are genetically designed to achieve rapid growth. Without the application of hormones or steroids, a turkey transforms from 0.2 pounds to 42 pounds in just 19 weeks. The turkeys are fed pellets mostly made of corn and soy. And while antibiotics are diluted into their food and water supply, they undergo a withdrawal period before they are processed for market. And to ensure a safe food supply, fat samples are routinely taken from the flock and analyzed for PCBs, insecticides, and antibiotic residue.

Welfare Concerns

Finishing barns pose threats to turkey welfare, especially when improperly managed. With a crowded stocking density, turkeys don't have enough space to move or exercise, which increases their susceptibility to lameness. Cramped conditions also increase the risk of injurious pecking and heat stress among the birds. Ample space and proper cooling are essential for the well-being of these animals. The rapid rate at which turkeys grow also presents unique challenges to their health. Growing turkeys face a high risk of leg disorders, leg weakness, joint problems, bone fractures, as well as heart problems, and even death. If they can't move, turkeys will not be able to access food and water.

This disability will also increase the amount of time they are in contact with litter, which can cause pad burn, hock burn, and breast blisters if the litter is not well managed. The lighting systems in these typically windowless barns can increase mortality rates and encourage aggression if they don't provide adequate time for activity and rest. The barren environment of finishing houses increases boredom and frustration amongst turkeys, who crave the ability to perch, forage, and dust bathe. The inability to express their natural behavior increases the likelihood of injurious pecking or even cannibalism. Lastly, it's not uncommon for ammonia and respirable dust concentrations to be higher than suggested contamination thresholds due to improper ventilation, which increases the risk of respiratory illness.

Transport

Non-breeding turkeys will be sent to the processing plant at 19-21 weeks of age. Temple Grandin explains the process for the National Turkey Federation. First, the turkeys are loaded onto trucks. Traditional turkey "harvesting" involves picking up turkeys by the legs and shoveling or throwing them into tightly packed tiered crates which are then packed on the truck. This causes unnecessary stress and injury to the birds. There is a less dangerous method, which is to herd the turkeys onto a conveyor belt that takes them into a crate on the truck. This method allows the turkeys to remain untouched and upright during the loading process. During transportation, the birds are stressed and are without food and water, so it is essential that the birds' temperatures are stable. Truck crates should have open slots during the summer and fiberglass windows during the winter to regulate temperatures. Once they arrive, turkey transporting trucks are inspected, disinfected, and then weighed with and without the birds.

Slaughter and Processing

Once the turkeys are taken off the truck they undergo either an electrical water bath stunning or a controlled atmosphere stunning. During a controlled atmosphere stunning, the turkey has moved on a sealed conveyor belt into a chamber that exposes them to increasing levels of carbon dioxide to knock them unconscious. A gradual slow increase of CO_2 is desired because fast exposure to high levels of CO_2 causes escape movements.

During the electrical water bath stunning, a turkey is moved by ankle shackles into an electrical water bath, where the electricity passes through their head to the rest of their body. Stunning should render the bird insensible and unable to feel pain. After that, an automated bleeding machine slashes the neck of the turkey. It is critical that the bird has bled out and died before it continues to be processed. The turkey then enters the scalder, which uses hot water to soften feathers. Then the picking machine removes the feathers. Hung by their drumsticks, the turkeys' insides are taken out. A hose vacuums any feces to avoid fecal contamination. The innards are removed carefully to avoid rupture and carcass contamination. An onsight USDA inspects the turkeys before they undergo their last quality inspection. The turkeys are chilled for five hours before they are further butchered and packaged.

Breeding

Back at the farm, the breeding stock is transported to the breeder farm at 28 weeks of age. Every commercially farmed turkey is artificially bred because the turkeys' size and propensity for physical ailments prevent them from being able to naturally reproduce.

Breeding males are selected between 14 and 18 weeks and undergo careful food and weight management. Their semen is collected in a process called milking. The male is stimulated by a massage on their abdomen. The milker holds the base of the erect phallus while using thumb and forefinger to squeeze and expel semen. The semen is collected with a syringe or suction tube. Males are milked twice a week.

When they're 29-30 weeks old, breeder females are moved into the laying house and undergo photostimulation to activate their reproductive systems. Next, they are artificially inseminated. During AI, the bird is held upside down as the handler slowly inserts the inseminator tube into the oviduct. To ensure maximum fertility, there should be three inseminations in the first 7-10 days after the first. Then, inseminate every seven days throughout the production period.

After AI, they are moved into the laying shed, which is equipped with nest boxes, fresh litter, drinkers, and feeders. There should be five egg-laying females in one nest to combat crowding, which causes a delay in peak egg production. Eggs are collected every hour or less. After laying eggs, the female will begin to display broody behavior, which describes the hen preparing to incubate her eggs by ceasing her egg production. You must discourage broody behavior to keep the female producing eggs. Another method is force molting:

> "When commercial breeding hens go out of egg production, they may be force-molted in order to bring them back into reproductive condition. Force-molting is induced by placing the hens in a completely dark house and removing all food and water for 72 hours. Feed and water are returned gradually. This deprivation of food, water, and light induces an additional egg-laying cycle in the hens."

Females will lay eggs for 26 weeks, averaging 100-130 eggs per laying cycle. When she is beyond egg-laying capacity, she will be euthanized.

Conclusion

In the wild, turkeys exhibit "complex, adaptive, and intelligent behavior". They maintain small social groups with stable hierarchies. They can distinguish between members of their own group and neighboring flocks. Turkeys are careful mothers, who keep their brood together for 4-5 months to teach them how to find food and avoid predators. The male siblings will stay together for life. Turkey groups forage and roost together. They are fast runners and enjoy flying. Commercial turkeys never meet their mothers or know their siblings. They can't run, fly, socialize, or forage like their wild counterparts. It's unlikely that they'll ever see outside their barn, except when they're transferred to the slaughterhouse.

Turkey farming is an ancient practice in North and Central America

Domestication stretches back thousands of years on the continent. Many turkey farmers of today come from a long line of turkey farmers before them. It's a tradition rooted in hard, honest work and attentive care for another animal– A means of providing for your family and community, and practicing environmental stewardship. These values are not lost on today's turkey farmers. They have every incentive to provide these turkeys with the best care they can, even at a scale unfathomable to their ancestors. They just happen to exist and operate within an animal agriculture system that favors overproduction, profit, and efficiency over animal welfare and sustainability.

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