



Poultry Extension Collaborative Newsletter

A collaboration between Purdue University, University of Maryland,
University of Georgia, and Virginia Tech

THE TURKEY: AN AMERICAN TRADITION



A domesticated turkey (Image source: Pixabay)

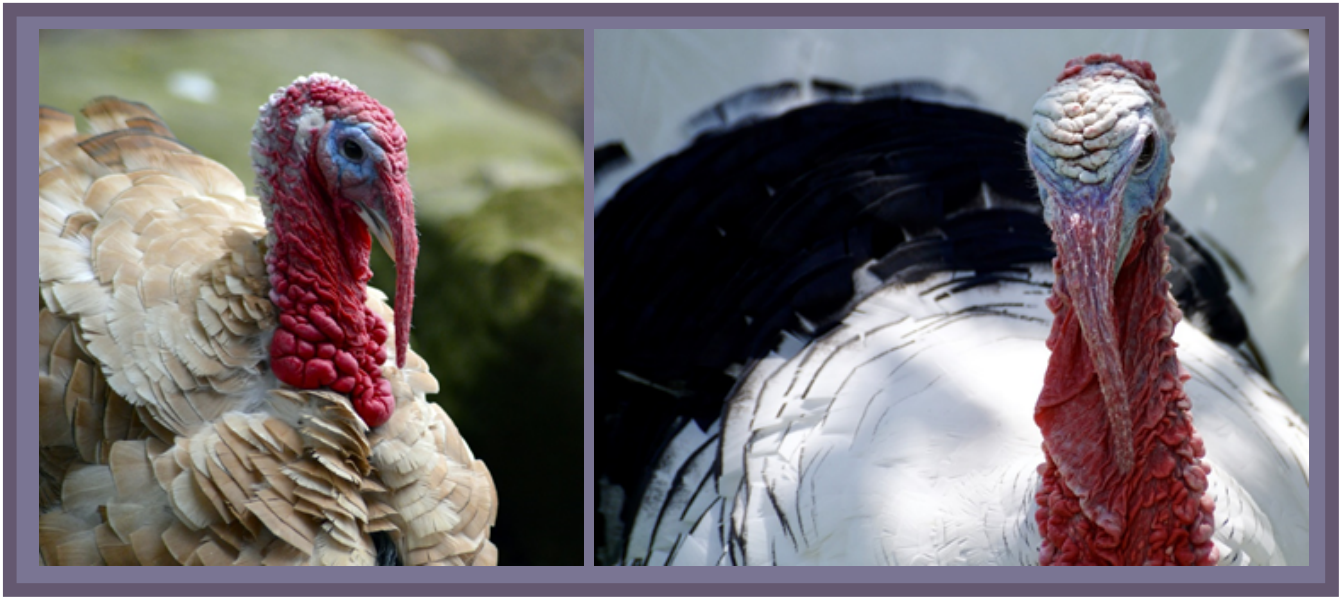


A wild turkey (Image source: Pixabay)

Turkeys are an important American cultural icon and Thanksgiving dinner staple. In fact, it is tradition for the US president to “pardon” a turkey each year at an annual White House ceremony. The 2021 turkeys that will participate in the ceremony are from Indiana.

The turkey is a relatively large, terrestrial bird (wild turkeys can fly for short distances; domesticated turkeys cannot fly) that is closely related to the chicken and quail and is native to North and South America. Turkeys were domesticated over 2000 years ago in Mexico. There are many different varieties of domesticated turkeys and most selective breeding initially focused on feather color and pattern. However, in the 20th century, the focus shifted from feather color and pattern to raising turkeys for meat production and conformation traits.

If you consume turkey at Thanksgiving, it is most likely a broad breasted white turkey, which has been selected for increased feed conversion efficiency and grows faster than heritage turkey varieties. Unlike the wild turkeys you might see in fields, the broad breasted white turkey is completely white-feathered. Heritage turkey breeds are slower growing and have different feather colors and patterns, such as the Royal Palm, Narragansett, and Bourbon Red, among others.



Heritage turkeys (Source: Pixabay)

Turkey production in the US

More than half of the world's farmed turkeys are produced in the US (about 229 million turkeys) and the US turkey industry is worth over \$4.3 billion. Although 86% of American residents consume turkey products according to a 2019 study and 87% consume turkeys at Thanksgiving in particular, most people do not know much about how turkeys are produced or raised.

The majority of turkeys for commercial production (those that are processed and sold at the local grocery store) are raised in flocks that are the same age and sex in floor barns, that is, barns that have wood shavings or other bedding on the floor. Newly hatched turkeys, called poults, are placed in barns and raised until production age. The majority of barns are curtain-sided, which means that there are large curtains that can be raised or lowered for natural light and ventilation. Female turkeys (hens) are raised to about 14 weeks of age and 16 pounds of weight; these are the turkeys that are produced for the whole bird market, so in other words, the turkey that ends up at the Thanksgiving dinner table. Male turkeys (toms) are raised to about 18 weeks of age, weighing about 38 pounds at this age, and are used for products such as deli meats, sausages and turkey bacon.

Turkey characteristics

Turkeys have unique features that make them, well, turkeys. Turkeys are social animals that develop social hierarchies or pecking orders, so turkeys recognize individuals within their flock. Turkeys are active during the daylight hours and in the wild, will spend a lot of time foraging and scratching in search for food. Turkeys can see in color, in fact, like chickens, turkeys can see in the ultraviolet spectrum (see our [PEC newsletter on the chicken visual system](#)).



Photo courtesy of the Purdue University
College of Agriculture

- **Caruncles** – fleshy knobs or bumps on the turkey's neck
- **Snood** – fleshy flap that hangs over the turkey's beak. Males' snoods are longer than females' and can elongate and turn brighter red when they are trying to impress a female.
- **Wattle (dewlap)** – the skin on the turkey's neck, under the head. Other poultry also have wattles.
- **Beard** – black, hair-like feathers on the turkey's breast

Fact or myth?

When it is raining, turkeys will look up at the sky and drown themselves - MYTH

Broad-breasted white turkeys are bred using artificial insemination to produce fertile eggs because they cannot mate naturally - FACT

Benjamin Franklin wanted the turkey, and not the bald eagle, to be America's national bird - MYTH

As you are surrounded by images of Thanksgiving this turkey season, remember these fun facts for talking turkey to keep the dinner conversation going when all else fails.

Further reading

1. Bir, C., M. Davis, N. Widmar, M. Erasmus and S. Zuelly. 2020. Willingness to pay for whole turkey attributes during Thanksgiving holiday shopping in the United States. *Poult. Sci.* 99: 2798-2810.
<https://www.sciencedirect.com/science/article/pii/S0032579120300614>
2. Bir, C., M. Davis, N. Widmar, S. Zuelly and M. Erasmus. 2019. Perceptions of animal welfare with a special focus on turkeys and turkey production. *Frontiers Vet. Sci. Anim. Behav. Welfare.* doi: 10.3389/fvets.2019.00413.
<https://www.frontiersin.org/articles/10.3389/fvets.2019.00413/full>
3. Guan X, Silva P, Gyenai KB, Xu J, et al. (2009). The mitochondrial genome sequence and molecular phylogeny of the turkey, *Meleagris gallopavo*. *Anim. Genet.* 40: 134-141. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664387/>
4. National Turkey Federation <https://www.eatturkey.org/raising-turkeys/>
5. The Livestock Conservancy: Heritage Turkey Definition - The Livestock Conservancy
6. The White House Historical Association:
<https://www.whitehousehistory.org/pardoning-the-thanksgiving-turkey>