

Selecting Turkeys

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There are two species of turkeys, both native to the Americas: the North American (*Meleagris gallopavo*) and the Ocellated (*Meleagris ocellata*) turkey. The North American wild turkey is the species from which all domesticated varieties of turkeys originated. The Ocellated turkey, sometimes called the Mexican turkey, is native to the Yucatan Peninsula of Mexico. Raising wild turkeys is illegal in some states, including Kentucky. The prohibition includes domestic strains of wild birds. The law is meant to protect native populations of wild turkeys.

The wild turkey was first domesticated by the Aztecs. Turkeys provided a source of protein (meat and eggs) and the feathers were used for decorative purposes. Very little genetic selection was used with these early domesticated turkeys. The explorers took these turkeys back to Europe with them. After some early genetic selection in Europe, these genetically selected turkeys were re-introduced into America with the first settlers. The initial genetic selection of domesticated wild turkeys occurred in Europe, but the different varieties were developed in the United States, with the possible exception of the White Holland.

Technically there is only one breed of turkey. What are often referred as breeds are actually varieties of this single breed. The varieties included in the American Poultry Association's Standard of Perfection are Bronze, Narragansett, White Holland (sometimes referred to as the Broad-Breasted White), Black, Slate, Bourbon Red, Beltsville Small White, and Royal Palm (Table 1). Within the eight standard varieties there are various strains. Strains are developed when certain characteristics are bred into a particular variety by different breeders.

Table 1. Comparison of the eight varieties of heritage turkeys

Breed	Appearance	Typical market weight (lb)	
		Female	Male
Beltsville Small White	White plumage and pinkish-white shanks. Small weight is an important characteristic.	10	17
Black	Black plumage with a slight tinge of bronze, mainly on the back and tail. Shanks initially slaty black shanks but become pink with age.	14	23
Bourbon Red	Main plumage is dark chestnut; wings and tail are white. Shanks are reddish-pink.	14	23
Bronze	Markings are similar to the wild turkey but the Bronze has a tail tipped in white and is not as sleek and slender as a wild turkey.	16	25
Narragansett	Plumage is a rich metallic black with steel-gray. Shanks are salmon colored. Penciling and banding of tan and white on the tail and wings.	14	23
Royal Palm	Plumage is white with the breast and body feathers tipped in black and the back primarily black. Shanks are pinkish-white to pink.	10	16
Slate	Plumage is ash blue. Shanks are deep pink.	14	23
White Holland	White plumage. Shanks are pinkish-white.	16	25

Source: Livestock Breed Conservancy - <http://www.livestockconservancy.org/>

Eight varieties of turkeys are recognized by the American Poultry Association (APA), and the American Livestock Breeds Conservancy (ALBC) recognizes others not included in the APA Standard of Perfection, including the Jersey Buff and White Midget. Some hatcheries carry a number of other varieties including Crimson Dawn, Calico and Red Phoenix.

Turkeys are primarily kept for meat production. Most American consumers prefer the breast, or white meat, of a turkey. Commercial strains of turkeys were developed through several generations of genetic selection, resulting in broad-breasted varieties that have rapid growth and high feed efficiency. Many small flock owners have continued to use the commercial-type turkey because of their high performance and high breast yield. In the past few decades the other varieties were kept primarily for exhibition purposes, but recently there has been an increased interest in the commercial production of “heritage” turkeys.

Most of today’s commercial turkeys are the result of artificial insemination because commercial turkeys are too big to breed naturally. To be considered a heritage variety of turkeys, natural matings must be possible. The turkeys must also have a long, productive, outdoor lifespan and a slow growth rate.

Several turkey varieties are classified as heritage. Most are well adapted to the small flock management system. They are usually more disease-resistant and are good foragers. They can mate naturally and raise their young, though mothering abilities vary from variety to variety.

When raising heritage breeds, remember that the slower growth rate will increase the cost of production, especially the total

amount of feed consumed. Heritage breeds also have less breast meat. For example, a typical Broad-Breasted White turkey has nearly 70 percent breast meat, while the heritage breeds have about 50:50 white to dark meat. These factors should be taken into consideration when marketing heritage turkeys.

The Standard Bronze variety was developed in Rhode Island. It is a large bird with dark pin feathers that prevent it from dressing out well. They are good layers but do not go broody as easily as some of the other varieties. The Bronze variety was developed by crossing the turkeys brought to America by the settlers with Eastern wild turkeys. The resulting offspring showed hybrid vigor. They were larger than European turkeys but had a tamer disposition than the wild turkey.

The Bronze variety does not include the Broad-Breasted Bronze, which is a non-standardized commercial strain that does not qualify as a variety and is only used in commercial meat production. Similarly, the Broad-Breasted White turkey is a non-standardized commercial strain raised for meat.

The Beltsville Small White was developed in the 1930s at the

United States Department of Agriculture (USDA) research station in Beltsville, Maryland. For many years the Beltsville Small White was the most popular turkey variety grown commercially. The development of the broad-breasted turkey resulted in a decline in the production of Beltsville Small Whites. The Beltsville Small Whites produce a nice table bird but are not as flavorful as other varieties.

The Beltsville Small White was developed in response to market research that indicated consumers were interested in a small- to medium-sized turkey with no pin feathers. The smaller breed, however, did not satisfy the needs of restaurants, which wanted a larger bird from which they could get more slices. The result was the development of the Broad-Breasted White (Large White), a commercial variety not recognized in the APA Standard of Perfection. The Broad-Breasted White could be harvested at a young age to meet the need for small turkeys or could be harvested at a later age for restaurant use.

White-feathered turkeys are not new. They were raised by the Aztecs. The early explorers brought



Figure 1. Broad-Breasted Bronze tom turkey.
Jacque Jacob

them back to Europe. The White Holland was initially developed in Holland (thus the name) and was re-introduced to the colonies by the early Dutch settlers. They are said to be the calmest variety. The white feathers reduced the visibility of any pin feathers that remain after plucking.

The Bourbon Red is named for Bourbon County, Kentucky, where they were developed in the late 1800s. They are said to be good natured, making them suitable for small flock production. They are also good setters and mothers.

The Narragansett variety is named for Narragansett Bay in Rhode Island. It was developed from a cross between the Eastern Wild turkey and domestic turkeys brought over by the early colonists. The Narragansett was the foundation of the early turkey industry in New England. They are an excellent variety for small flocks since they have a calm disposition and are good foragers. They mature early, are good egg producers and have good maternal abilities.

The Slate variety, also known as the Blue Slate or Lavender turkey, is named for its color. The feathers are an ashy blue color. Although the Slate variety was recognized

by the APA in 1874 there is still considerable variation in coloring making it difficult to breed consistently. It is gaining popularity in small flocks because of its survivability and flavor.

The Black variety, sometimes referred to as Black Spanish or Norfolk Black, was developed in Europe from the first turkeys brought there from the Americas. Blacks were crossed with the wild turkey to produce the Bronze, Narragansett and Slate varieties. Although the Beltsville Small White was the main turkey variety raised commercially, the Black variety of turkeys was also farmed commercially to some extent until the early twentieth century when the popularity of the Broad-Breasted White grew.

The Royal Palm turkey variety, also known as Crollweitz or Pied, is kept primarily as an ornamental variety. They have the least filled-out breast of the turkey varieties but have a calm nature. They are prolific layers and go broody quickly. They were one of the last turkey varieties to be included in the APA Standard of Perfection (1977). Royal Palm turkeys are used in some areas as a means of biological insect control.

The Midget White was developed at the University of Massachusetts in the late 1960s as a smaller complement to the Broad-Breasted White, but the anticipated demand never surfaced. Midget White turkeys are relatively friendly and well suited for small farms.

Summary

Many options are available for those interested in starting a small flock of turkeys. If fast growth and good feed efficiency are important, the commercial strains of turkey are your best option. The Midget White, a smaller version of the Broad-Breasted White, is well suited for small farms.

If you are looking at raising heritage turkeys there are several varieties to choose from. The Bourbon Red was developed in Kentucky and is suitable for small flocks. If you would like to enter your turkeys in Poultry Shows, purebred varieties are required. Choose one of the eight varieties recognized by the American Poultry Association in their Standard of Perfection.

The Royal Palm turkey is primarily an ornamental variety, but any of the other varieties are well suited to the small flock.