

TOPIC: Eggs – From Farm to Table



Have you collected eggs at the Loudoun Heritage Farm Museum? Have you seen the hens and their eggs? Hens are female chickens and roosters are male chickens. The chicken roost is located in the barn with Milkie the Cow. If you are interested in learning more about Milkie and Dairy Cows, please revisit our virtual museum webpage and look for the information on [Farm to Table: Milk](#).

We are going to learn about hens and how eggs get to the grocery store. But first we are going to look at the different breeds of chickens. Did you know that there are hundreds of breeds of chickens. However, we are going to learn about some of the more common breeds.

Common Chicken Breeds



White Leghorn: These are the hens that are primarily used at commercial egg farms. The word leghorn is derived from Livorno (a city in Italy) which is where from where these chickens were first exported to the United States in 1828. Leghorn hens lay about 280 to 320 eggs a year. They are a high energy bird and good flyers and will roost in a tree if you let them. Leghorns lay white large to extra-large eggs, depending on how long she has been laying eggs.

Fun Fact: The most famous leghorn is Foghorn Leghorn, a Looney Tunes Character.



Plymouth Rock: This breed is also known as the Barred Rock because of the black and white bars on their feathers. This is one of the oldest American breeds. It was first seen in Massachusetts in the mid 1800s. These chickens became very popular and were raised coast to coast in the United States. They were the main source of egg and chicken meat before World War II. These hens lay around 200 light brown eggs a year. The temperament of Plymouth Rocks have been described as mellow.

Fun Fact: Because of their disposition, they make good pets. They get along so well with humans and other animals that they may even become best friends with your dog!



Rhode Island Red: The Rhode Island Red has been the state bird of Rhode Island since 1954. These chickens were developed in Rhode Island and Massachusetts by cross breeding brown leghorns with chickens of oriental origin. These chickens do well in any climate, be it hot or cold. Rhode Island Reds can range in temperament from docile to pushy. The roosters do tend towards aggression. These hens can lay 200-300 medium to large light brown eggs a year.

Fun Fact: There are Rhode Island Red statues in Adamsville, Rhode Island and Little Compton, Rhode Island to honor these chickens!



Easter Eggers: These chickens are not pure breed chickens. They do not have any particular coloring or characteristic. They all have one thing in common though; one of the parents was either a Araucana breed or Ameraucana breed who lay blue color eggs. The result are eggs that range in color from light blue, light green to olive green, and even pink shells. You do not know what color eggs an easter egger will lay until she starts laying. However, whatever color she lays, it will be the same color for the rest of her life. If she lays an green egg, it will always be a green egg. She will not lay a green egg one day and a pink one the next day.



Hen and Egg Production Facts

- It takes a hen 26 hours to produce an egg.
- A new egg starts forming shortly after the last egg is laid.
- Hens need at least 14 hours a day to lay eggs. Modern egg farms tend to use artificial lighting so that we have eggs year round or they have the chickens leave the roost at sunrise.
- Since the egg laying cycle is dependent on light, if the hen lays an egg near the end of the day, there will not be enough light exposure for the hen to start producing a new egg. The hen will then rest for a day or two before the next egg is produced.
- Chickens in general molt twice a year. This means that the chickens shed any old, worn feathers and grow new ones. This molting period allows hens to rest their bodies and replenish needed nutrients; hens do not lay eggs during this time.

History of Egg Farms

Birds and eggs have been around long before man. Historic records show that domesticated fowl were laying eggs as early as 3200 BC. The United States egg production business began in the early 1900s with families raising small flocks of hens in their backyard for their own egg consumption. Any extra eggs were sold. Some farmers started increasing their flock size to concentrate on selling eggs because it brought in extra income and became profitable.

The larger flocks of 400 hens mainly roamed and lived outside but did have a coop for roosting. This caused problems with weather, predators, diseases and pecking order. About 40% of hens would perish. These hens would only produce about 150 eggs a year as opposed to the 250-300 eggs a year that a hen lays today.

Farmers started experimenting and found out that if hens were brought indoors, their lifespan increased as they didn't have any predators and their health improved as they didn't have to forage for food. They also experimented with different feed and with increased nutrition, the quality of the eggs improved.

By the 1940s, the cage system was invented. A series of raised metal cages replaced the wooden roosts. This meant that the chicken waste would not come into contact with the hens or the eggs. Farmers had an easier time with waste removal and sanitation in the hen house. This cage system also reduced the problems with the pecking order as all the hens would be able to eat and drink enough. California farmers quickly implemented the cage system and found that it improved the health and egg quality improved. The number of eggs laid in a year increased to 250 and 95% of the flock survived.



Farmers in other states saw the success of the cage system and implemented them with modifications such as enclosing the hen house in winter climates with added ventilation in the summer months.

With the increase in egg production, came automation in the form of conveyor belts for feeding the hens and collecting the eggs. The conveyor belts carry the eggs to the washing and inspection stations. This increased automation shift occurred in the 1960s and led to the move from small farms to large commercial productions of 100,000 hens. Today there even some flocks of over 1 million hens; robots are also used in feeding the hens and collecting the eggs.

Current United States Statistics

- Approximately 280 million laying hens
- 75 billion eggs a year are produced
- 10% of the world's supply
- 60% of egg produced are used by consumers
- 9% of eggs produced are used by the food service industry
- 31% of eggs are turned into other egg products used in the restaurant industry and other food manufacturers making products such as mayonnaise and baking mixes.

Fun Facts:

- White and brown eggs have the same nutritional value.
- Brown eggs cost more because brown laying hens tend to eat more feed and produce less eggs so the cost per egg is higher.
- There are over 100 different ways to prepare eggs. Americans eat approximately 250 eggs a year.

AN EGG-CITING TIMELINE

EGGS: FROM FARM TO TABLE



Hens Lay Eggs

Hens are fed with a mixture of corn, soybean meal, vitamins and minerals. Hens lay 1 egg every 24-26 hours.



Eggs are Gathered

Eggs are gathered. Small operations gather by hand but large operations use conveyor belts.



Eggs are Washed

Eggs are washed and sanitized.



Eggs are Canded and Graded

A light is shone through the eggs so that the inside is seen. Based on the interior quality, the eggs are graded AA, A, or B.



Eggs are sorted and packed

Eggs are sorted according to grade and size (minimum weight per dozen).



Eggs are Refrigerated

Eggs must be kept refrigerated. In the United States, because eggs are washed, the natural protective coating of the eggs are washed off. Refrigeration prevents bacteria growing on the eggs.



Eggs are Shipped to Grocery Store

Eggs are delivered to the grocery store in refrigerated trucks. The time it takes for eggs to get to the store from when the egg is laid is only 3 days.



Eggs Come Home

The eggs are purchased at the grocery store, brought home, and ends up on the table!



Farm to Table Movement and Loudoun Raised Chickens

What you have read so far is about the commercial production of eggs. Large scale farm operations were brought about by the advent of World War II and advancements in technology. With World War II, men enlisted in the armed forces and went off to fight. Their jobs were left empty and women started moving off the farm to take jobs that were traditionally for men. The icon “Rosie the Riveter” was born. After World War II, women did not want to go back to traditional “women’s work” or back to farm life. The connection of knowing where and how your food was grown was gone. With more women in the workforce but still caring for their families, convenience became a factor for them in providing meals. In the 1950s, new food packaging and processing became available such as canned soups and vegetables and frozen dinners. In the 1960s and 1970s, there became an increasing awareness of the dangers of pesticides and “organic” food was introduced. Despite that awareness, microwaves were introduced to households in the late 1970s and became a mainstay in homes and offices where people could cook their processed food quickly. In the 1990s people started demanding local, fresh, organic food and farmers markets started to grow. Today, people are concerned with Non-GMO (genetically modified) foods and looking towards plant-based foods.

In Loudoun County, there is a rise of Farm to Table Restaurants such as The Restaurant at Patowmack Farm in Lovettsville where they grow their own produce and AhSo Restaurant in Brambleton where they work directly with farmers to source their meat and produce. There are a growing number of farm stands and farmers’ markets. According to Loudoun Farms, an organization promoting Loudoun agricultural products and assisting with developing new agricultural businesses, there are 45 farms where you can purchase farm fresh eggs.

The number of people raising chickens in their backyards is rising. Young families raising chickens started because they wanted a grasp on how their food is being grown and teaching their children about lifecycle and responsibility. Others want to focus on sustainability. Just like people, chickens have their own personality and some chickens end up as family pets. There is support for chicken raisers through Facebook groups such as Lovettsville Chicken Owners, Western Loudoun Chicken Chat, Purcellville Backyard Chickens, and NOVA Poultry Owners.

Many of the Loudouners raising chickens question the method of commercial egg producers. They believe in letting their own chickens roam in the sunlight and forage for bugs and worms. The food that a chicken eats affects the taste of the egg. Local eggs have a brighter orange yolk versus the light yellow of an egg from the grocery store. They see a difference in the nutritional value and content of the eggs.

To find a listing of local fresh eggs, visit: <https://bit.ly/3b0h16r>



Bouncy Egg Experiment

This experiment turns a raw egg into a bouncy ball! All you need is a raw egg, glass jar, and vinegar. <https://bit.ly/2XxmfmX>

Cheesy Egg Toast

What's better than cheese, eggs and toast? Try out this recipe: <https://bit.ly/2XmT8Ch>

Brain Teasers

1. A Poultry Problem

I bought some fowls the other day,
One hundred dollars did I pay.
Each turkey did five dollars touch,
Each goose did bring but half as much.
While chickens, if it must be told,
For ten cents each were freely sold.
One hundred fowls in all had I,
Of each how many did I buy?

2. You have a fox, a chicken, and a sack of grain. You must cross a river with only one of them at a time. If you leave the chicken with the fox, the fox will eat the chicken. If you leave the chicken with the grain, the chicken will eat the grain. How can you get all three across safely?
3. A man ate an egg each day. He did not have any chickens at home. He never bought, borrowed, or stole chicken eggs. How is this possible?
4. Visual Word Puzzles – can you figure out what phrases these stand for?

<p>EGGS</p> <p>EASY</p>

<p>EGG EGG</p> <p>HAM</p>



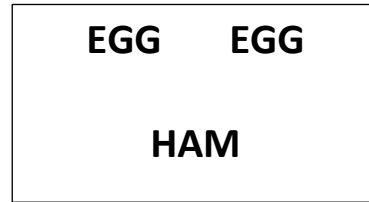
Brain Teaser Answers

1. 12 Turkeys, 13 Geese, 75 Chickens
2. Take the chicken over first. Go back and get the grain next, but instead of leaving the chicken with the grain, come back with the chicken. Leave the chicken on the first side and take the fox with you. Leave the fox on the other side with the grain. Finally, go back and get the chicken and bring it over.
3. He did not eat chicken eggs. He ate goose, quail, fish, etc eggs.

4.



Eggs over easy



2 eggs and ham