

Department of Animal Science

NUMEROUS REASONS FOR HIGH EGG PRICES

February 2023

*Tom Tabler, Department of Animal Science
University of Tennessee*

Anyone who has been to the grocery store recently realizes that eggs have become very expensive. In December 2022, the average price of a dozen eggs in the U.S. was \$4.25, more than twice what they cost a year earlier. However, when you start looking for the reasons behind this, do not believe the conspiracy theories circulating on social media. The reasons are not your local feed store or co-op, large feed manufacturers, or the table-egg companies that furnish eggs to the grocery store. The actual culprits causing high egg prices these days are avian influenza, inflation (the price of feed, transportation and labor), cage-free laws, and the eating habits of American consumers. In other words, it's as simple as supply and demand. And many backyard flocks have quit laying since mid-December, so add Mother Nature to the list of culprits as well. Let's explore what's really driving the high price of eggs these days.

Avian influenza

The number one reason for high egg prices is **the ongoing avian influenza outbreak** that started approximately a year ago. During 2022, the U.S. lost approximately 58 million head of poultry to avian influenza and disease-related control efforts. Of these 58 million head, approximately **43 million were table egg layers or hens that lay eggs for grocery stores**. While the industry is diligently working to replace these lost birds, it takes approximately six months from the hatch date for a female chick to reach sexual maturity and start laying eggs. With 43 million fewer birds laying eggs each day compared to a year ago, there are significantly fewer eggs available for sale. And Americans eat a lot of eggs, an average of 278 per person last year according to the U.S. Department of Agriculture. Fewer eggs and a strong demand mean higher prices at the grocery store.

We are likely not out of the woods yet where avian influenza is concerned. The number of avian influenza cases has slowed recently in part because most of the wild birds that were migrating have gone south and it's not time for them to return north just yet. However, the migration back north is coming later in the spring and cases will likely increase again when that happens. Biosecurity is the best defense against avian influenza so both large commercial operations and small backyard flocks should follow sound biosecurity practices every day. Some experts expect the current threat to continue for another 18-24 months, which means we must be vigilant and on guard to protect our flocks well into the future. All flocks are at risk, including commercial, backyard, hobby, free-range, organic, etc., as well as 4-H and FFA youth poultry projects. Avian influenza does not magically appear in a commercial poultry house or backyard chicken pen. It must be placed there somehow. Perhaps by direct contact with infected wild birds, their nasal secretions or droppings, but more likely by indirect contact such as someone unknowingly tracking the virus inside the poultry house or coop on their shoes or clothing.

Inflation

Inflation is right up there with avian influenza and has driven up the price of many items in recent months, including eggs. Also falling victim to inflation are other associated items such as the feed, diesel fuel and labor it takes to get eggs to the store. Feed grains like corn and soybeans make up the majority of commercial poultry diets, and both have increased in price. On January 2, 2020, March corn was selling for \$3.94/bushel on the futures market. March soybeans were selling for \$9.44/bushel on the futures market. At the time of this writing, March corn is selling for \$6.74/bushel and March soybeans are selling for \$15.24/bushel. Much of this **feed cost is passed on to the consumer, as is the increased cost of diesel fuel/transportation** to move eggs from the farm to the grocery store. Supply chain disruptions and increased labor costs since the start of the pandemic have also driven up costs of consumer goods, and eggs are no exception.

Conspiracy theories exist on social media that blame local feed stores or large feed companies for manufacturing feed that make backyard chickens stop laying eggs so that customers are forced to buy high-priced store eggs. But examining feed tags can assure consumers that everything chickens need from a nutritional perspective is in that sack of feed. Has the tag changed in the last month or the last six months? If the feed formulation changed, you would see differences in what is listed on the feed tag. There are no ingredients that would possibly be detrimental to egg production on the tag. If you have never paid attention to that tag before, now is the time to start. That tag is extremely valuable and provides you with useful information if you take the time to read it.

The feed tag

A commercial feed is nutritionally suitable for its intended use as represented by its labeling (the feed tag). A feed tag allows the purchaser to select a product to meet their production needs. The feed tag provides basic product information that would help the purchaser determine how to use the product safely and obtain the best benefits and results from its use. In addition, that tag is designed in a uniform format and composition and in a specified order to provide a level playing field for both the purchaser and distributor.

A commercial feed tag contains information describing the feed product and details necessary for the safe and effective use of the feed. This **information is mandated by law and the feed manufacturer must include this information on the feed tag**. All commercially available feeds must contain a tag or label that includes the following information:

- The net weight.
- The product and/or brand name.
- A guaranteed analysis stating the level of those nutrients guaranteed by the company.
- The common name of each ingredient. Some states may permit the use of collective terms for ingredients of similar type.
- The name and principal mailing address of the manufacturer/seller.
- Adequate directions for use of all commercial feeds containing drugs.
- Precautionary statements for safe and effective use.

If the feed includes a medication, additional information must be included on the tag. In addition to the information required for non-medicated products, medicated feeds must also contain the following information:

- The purpose of the medication.
- Directions for use of the feed product.
- The names of all active drug ingredients.
- The concentration of all active drug ingredients in the feed.
- A warning or precautionary statement for withdrawal period when required by law.
- Warnings against misuse.

Specific guarantees must be present on the tag for complete feeds and supplement feeds intended for many animal species and classes. In certain instances, a specific guarantee is not required when the commercial feed is neither formulated for, nor represented in any manner as, a source of that nutrient. The guarantees are to be expressed in percentages unless otherwise noted. For all classes of poultry feed and supplements the guarantees include:

- **Minimum** guarantees for crude protein, lysine, methionine, crude fat and phosphorus.
- **Maximum** guarantees for crude fiber.
- **Minimum and maximum** guarantees for calcium, salt (if added), and for total sodium if total sodium exceeds that furnished by the maximum salt guarantee.

A feed tag contains a wealth of information, and it is important that you understand the information provided. If you purchase medicated feed, follow label directions and any withdrawal times that appear on the tag. Also, feed according to label directions as a medicated feed cannot be fed any other way or is a violation of the law.

Cage-free laws

Another factor adding to the high price of eggs is the increasing number of states that have adopted or are considering adopting cage-free laws for laying hens. Placing hens in an aviary or floor-type housing setting is doable; however, fewer birds per house are placed in a floor or aviary system compared to a cage house system. Fewer birds per house mean fewer total eggs available to sell, further widening the gap between supply and demand and driving prices higher. Poultry housing is extremely expensive and additional houses are required to maintain the same number of hens in a floor or aviary system compared to a cage system. Not only is more space needed but the added costs to convert conventional housing systems to cage-free systems is significant. This cost is passed along to the consumer. Consumers and retail outlets want these changes, but they must be willing to pay for them. It is often difficult to make the cost of this additional housing cash flow in today's challenging economic times.

Many table egg companies that have made cage-free commitments to their customers are struggling to meet those commitments because they can't justify the cost to do so. Consumers may demand cage-free housing for hens but are then unwilling to pay the increased price for cage-free eggs, making it difficult for egg companies to recover their costs. And companies that can't show a profit usually don't survive. As of March 2021, USDA National Agricultural Statistics Service indicated 70.7 percent of the U.S. layer population was housed in conventional cage-type housing while 29.3 percent was in cage-free production. Approximately 66 percent of U.S. hens must be in cage-free production by 2026 to meet projected demand, according to USDA Agricultural Marketing Service.

Consumer eating habits

The egg industry has added nearly three eggs per person per year between 2011 and 2022, with per capita consumption rising from 248 in 2011 to 278 in 2022. Consumers are more positive about eggs today than they were 10-12 years ago as there is better understanding that dietary cholesterol (of which eggs are a source) and serum cholesterol in our bodies are two different things. Eggs are also a good source of protein and other nutrients. One large egg has an abundance of nutrients, including:

- 70 calories
- 6 grams protein
- 5 grams fat
- 0 grams carbohydrates
- 0 grams sugar
- 0 grams fiber
- 70 milligrams sodium
- 147 milligrams choline
- 185 milligrams digestible cholesterol

According to United Egg Producers, **per capita consumption of eggs has increased 15 percent in the past 20 years**. This increased consumer demand, in conjunction with the loss of 43 million birds related to avian influenza in the past year, changing management styles related to cage-free housing laws, and increased feed, transportation, and labor costs have created a perfect storm that caused the record high egg prices seen in December 2022.

One bright spot is that wholesale egg prices have fallen in recent weeks, meaning that consumers may soon see relief at the grocery store. Also, consumer demand typically relaxes somewhat in January and February once the holiday baking season of November and December has passed. However, egg demand generally increases in the weeks leading up to Easter, which falls on April 9 this year. Therefore, it could be well into April before we see retail egg prices reflect the current drop in wholesale egg prices. Retail prices tend to follow about four weeks behind wholesale price trends. Furthermore, retail price trends are often less volatile than wholesale trends. For example, for every 10 percent shift in wholesale egg price, consumers can expect retail price to shift only about 2 percent. Any additional avian influenza outbreaks in commercial table-egg layer flocks would be a wild card, however, and could change things dramatically.

Weather and season

If your backyard chickens have stopped laying eggs, consider the weather and the season of the year. And remember this...eggs are a gift from our chickens. Chickens don't have to lay eggs. Eggs require much work from the hen, and she puts a lot of effort and nutrients into each egg. But she will do that if she doesn't feel threatened and is not concerned about body maintenance needs and self-preservation. However, regardless of what you may have heard, chickens are smart birds. They have known for centuries that when the days grow short, and the weather turns cold in the fall that hard times may be on the horizon. They go into self-preservation mode to survive the threat of the oncoming winter. This often means they stop laying eggs and use all those nutrients they were putting into their eggs for body maintenance needs to help them survive the winter. When spring returns with long days and warm weather, the hen sees that the

High Egg Prices

threat of winter has passed, and she again goes back to laying eggs. Unless hens are given additional light during winter so that the days are at least 16 hours long, many hens stop laying eggs between Thanksgiving and Christmas and don't start laying again until spring.

A cold spell in late December 2022 brought bitterly cold below zero temperatures, and any backyard chickens that were still laying eggs at that time went into self-preservation mode due to the cold weather. Also, chickens are very sensitive to changes in the length of the daylight period, and this same December period brought the shortest days of the year. The combination of short daylength and bitter cold likely forced many backyard flocks out of egg production mode and into body maintenance mode. Most hens will likely come back into production this spring when the days grow long again. It is not a conspiracy between local feed stores and large feed companies that caused your hens to stop laying eggs this winter. It's a naturally occurring need for self-protection and self-preservation, ensuring they are still around when springtime comes.

Summary

A perfect storm has driven egg prices to record levels in recent months. While some theories are blaming large feed and egg companies and local feed stores, this is not the case. Avian influenza is the primary reason egg prices are so high these days. The loss of 43 million table-egg layers has caused a serious decrease in the egg supply at a time when demand for eggs is quite strong. Other factors that are compounding the avian influenza situation are high inflation (including the rising costs of feed, transportation and labor), cage-free housing rules and regulations, changing eating habits of American consumers that includes increased egg consumption, and repercussions from natural weather patterns that have taken many backyard flocks out of production for a period of time. While egg prices have started to fall from the record high levels of December 2022, additional cases of avian influenza in commercial layer flocks could quickly reverse that trend. Biosecurity should be the top priority to keep commercial and backyard flocks safe.



UTIA.TENNESSEE.EDU

Real. Life. Solutions.™