

The Egg Crackdown – A Scorecard for Nutrition and Taste

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✓ Fact Checked

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STORY AT-A-GLANCE

- › “Egg Crackdown,” a CBC Marketplace report, investigates the marketing of supermarket eggs and visits egg producers to get a firsthand look at what the company’s label actually means
- › Health conscious consumers know to look for designations like “organic,” “free-range,” “pastured” and “cage-free,” but while you may think many of these are interchangeable, they’re actually not
- › While organic poultry and eggs are guaranteed to be free-range, as required by organic standards, free-range poultry are not required to be organic
- › The organic label is the only way to ensure you’re getting eggs from chickens that have not been fed antibiotics for growth purposes, as this is not allowed under the organic standards
- › Overall, the cage-free and free-range labels say little to nothing about the conditions in which the chickens are raised. For the best quality eggs, from the most humanely-raised hens, the label you’re looking for is “organic” and “pastured”

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Eggs are among the healthiest foods out there, but not all eggs are created equal, and sorting through the egg labels to identify the highest quality eggs can be a confusing affair.

Health conscious consumers know to look for designations like "organic," "free-range," "pastured" and "cage-free,"¹ but while you may think many of these are interchangeable, they're actually not. In some ways, these labels are little more than creative advertising.

The featured video, "Egg Crackdown," a CBC Marketplace report by investigative reporter Asha Tomlinson, investigates the marketing of supermarket eggs and visits egg producers to get a firsthand look at what the company's label actually means.

There Is a Confusing Array of Egg Labels

Unfortunately, while the Humane Farm Animal Care, a nonprofit certification agency, has set standards for free-range and pastured poultry for products bearing its Certified Humane label,² there's no legal definition of these terms in the U.S.

The "free-range" definition established by the U.S. Department of Agriculture applies to chickens only,³ not their eggs. As a result, the commercial egg industry is able to run industrial farm egg laying operations while still calling them "free-range" eggs, despite the fact that the birds' foraging conditions are far from natural.

Confusing matters further, while organic poultry and eggs are guaranteed to be free-range, as required by organic standards, free-range poultry are not required to be organic.⁴ Importantly, the organic label is also the only way to ensure you're getting eggs from chickens that have not been fed antibiotics for growth purposes, as this is not allowed under the organic standards.

For chickens, the USDA's definition of free-range does not specify the amount of time the hens must spend outdoors or the amount of outdoor space each hen must have access to. Nor do they indicate that the hen must have access to a pasture diet.

True free-range eggs, now typically referred to as "pasture raised" as a way to differentiate them, come from hens that roam freely outdoors on a pasture where they can forage for their natural diet, which includes seeds, green plants, insects and worms.

Large commercial egg facilities typically house tens of thousands of hens and can even go up to hundreds of thousands of hens. Obviously, they cannot allow all of them to forage freely. However, they can still be called "cage-free" or "free-range" as long as they're not confined to an individual cage.

Overall, the cage-free and free-range labels say little to nothing about the conditions in which the chickens are raised, and more often than not, they're still deplorable. So, for the best quality eggs, from the most humanely-raised hens, the label you're looking for is "pastured."

Putting Eggs to the Test

In the featured video, CBC Marketplace also conducts a taste test to see how the different farming methods translate into flavor. Included in the taste test are conventional battery caged eggs, free-range, organic and pastured eggs. The two conventional brands tested were Burnbrae and Gray Ridge.

In terms of flavor, the conventional eggs were deemed "bland," and some of the testers expressed concerns about animal welfare being one of the reasons they avoid conventional eggs. Tomlinson visits a CAFO in Ontario to investigate the conditions in which these egg-layers are raised.

The facility houses 20,000 chickens, and operations are automated. Each cage houses six chickens, the space being just tall and wide enough for the chickens to fit with minimal space to move. The eggs drop through an opening onto a conveyer belt.

Next up in the taste test were Small Flock's Delight's brown eggs "from hens on grass," a Canadian free-range brand, the label of which states: "Back to the old way, small flocks of happy hens picking and scratching through soil and green plants." Some taste testers said these eggs had a much more robust flavor and aroma, while others guessed they were conventional.

Enriched Colony, Nest-Laid Eggs Are CAFO

Next, Tomlinson visits a CAFO with "enriched housing" facilities. Eggs such as these cost about 50 cents Canadian more than conventional eggs and are marketed as being more ethical. But are they? The hens raised in enriched housing facilities get double the square inch of space given conventional chickens, and each cage has a scratch pad and perch rail.

They also have a darkened "privacy quarter" in which they can lay their eggs, as scientists claim hens prefer to lay eggs in a dark, private area. Other than that, the facilities and methods are identical to those of a regular CAFO. Eggs such as these are typically labeled as "enriched colony," "enriched coup" or "nest-laid."

Pastured Eggs – A Superior Choice in Flavor and Nutrition

As noted in the featured video, while "free run," "free-range" and "pastured" may sound like interchangeable terms, they're not. And the reality behind these terms isn't necessarily what you might expect:

- "Free run" eggs are from chickens that are not confined to battery cages, but they're still cooped up indoors, in a giant factory-style building, without access to the outside.
- "Free-range," is basically the same, but with access to the outdoors – at least in theory: Pictures from some free-range farms have a conspicuous absence of chickens in their outdoor areas.
- Then there's pastured. CBC visits Organic Meadows, a farmer-owned cooperative that raises "pastured" chickens and eggs. Each day, the barn is opened up and the birds migrate outdoors.

"Fresh air and sunshine, that does a lot of good to an animal," the farmer says. The hens are fed organic feed, and the eggs are hand-gathered. Thus, they command a markedly higher retail price.

While everyone might not be able to afford pastured eggs, "the consumer can feel confident they're getting their money's worth," the farmer says. As for taste, "creamy" and "delicious" were some of the comments given after tasting Organic Meadow's pastured eggs.

As noted in the video, the diet of the chicken can impact not only the taste of the egg, but also its nutritional value. CBC Marketplace had the different types of eggs tested for their nutritional content, and the differences were significant.

Organic Meadow's pastured eggs received the highest nutritional rating, having three to five times more vitamin E, twice as much omega-3 fat and significantly higher amounts of vitamins A and D than the other eggs.

When it came to taste, Burnbrae's conventional eggs came in last place, with none of the taste testers selecting it as their favorite. The free run eggs came in fifth place, followed by the free-range brand (Small Flock's Delight) and Burnbrae's Organic. Interestingly, the win was a tie between Gray Ridge's conventional and Organic Meadow's pastured eggs.

Pastured Eggs Less Likely to Carry Pathogenic Contamination

While not discussed in this CBC Marketplace report, pastured eggs are also far less likely to be contaminated with disease-causing pathogens. CAFOs are known to be hotbeds for Salmonella infection.⁵

Eggs can become contaminated while they are being formed if the Salmonella bacteria exist inside a chicken's ovaries. As noted in the report,^{6,7} "Food Safety and Cage Egg Production" by the Humane Society, published in 2011:

"All 16 scientific studies published in the last five years comparing Salmonella contamination between caged and cage-free operations found that those confining hens in cages had higher rates of Salmonella, the leading cause of food poisoning-related death in the United States."

Today, we also have antibiotic-resistant strains of salmonella to contend with, which makes potential contamination even more worrisome. While there's no way to guarantee 100% safety at all times, the benefits of free-range poultry are becoming more well-recognized, and reduced disease risk is definitely part of that benefits package.

Eggs Are an Important Part of a Healthy Diet

As mentioned, eggs are one of the healthiest foods around, loaded with valuable vitamins and minerals, including selenium, vitamins B2 (riboflavin), B5 (pantothenic acid), B7 (biotin) and B12, high-quality protein, iodine, vitamin D, zinc, omega-3 fats and more.⁸

Eggs are also an important source of lutein and zeaxanthin, two antioxidants known to play a role in healthy vision and the prevention of cataracts and macular degeneration, and are one of the best sources of choline available, providing 430 milligrams of choline per 100 grams.⁹

Choline helps keep your cell membranes functioning properly, plays a role in nerve communications and prevents the buildup of homocysteine in your blood, which is good because elevated levels are linked to heart disease.

Choline also helps reduce chronic inflammation and has been shown to lower your risk of nonalcoholic fatty liver disease, in part due to its role in phosphatidyl choline and transporting fats out of your liver,¹⁰ and part due to the fact that it's an important part of the mitochondrial membrane, and mitochondrial dysfunction is a central mechanism in the pathogenesis of NAFLD.¹¹

Choline deficiency is thought to play a major role in NAFLD because it disturbs mitochondrial bioenergetics¹² and fatty acid oxidation.¹³ Choline also enables your body to make the brain chemical acetylcholine, which is involved in storing memories. In pregnant women, choline helps prevent birth defects such as spina bifida, while also playing a role in your baby's brain development.

According to a study¹⁴ published in the journal *Nutrients*, only 8.03 to 0.56% of U.S. adults are getting enough choline – including only 8.51 to 2.89% of pregnant women. Among egg consumers, however, 57.3% meet the adequate intake levels for choline.

Based on the outcomes, the study authors concluded that "it is extremely difficult to achieve the adequate intake for choline without consuming eggs or taking a dietary supplement."¹⁵

Some of the symptoms associated with low choline levels include lethargy, memory problems and persistent brain fog. Because your body can only synthesize small amounts of this nutrient, you must get it from your diet on a regular basis.

Where and How to Find Organic Pastured Eggs

So to summarize, what you're really looking for is eggs that are both certified organic and true pasture-raised. Barring organic certification, which is cost-prohibitive for many small farmers, you could just make sure the farmer raises his chickens according to organic, free-range standards, allowing his flock to forage freely for their natural diet, and doesn't feed them antibiotics, corn or soy.

If you live in an urban area, visiting a local health food store is typically the quickest route to finding high-quality local egg sources. Your local farmers market is another source for fresh organic pasture-raised eggs, and is a great way to meet the people who produce your food.

With face-to-face contact, you can get your questions answered and know exactly what you're buying. Better yet, visit the farm and ask for a tour. Your egg farmer should be paying attention to proper nutrition, clean water, adequate housing space and good ventilation to reduce stress on the hens and support their immunity.

To get an idea of what you're looking for in a superior egg producer, take a look at Joel Salatin's Polyface farm operation below. He's truly one of the pioneers in sustainable agriculture, and you can take a virtual tour through his chicken farm operation in the following video.

As a general rule, you can tell the eggs are pastured by the color of the egg yolk. Foraged hens produce eggs with bright orange yolks. Dull, pale yellow yolks are a sure sign you're getting eggs from caged hens that are not allowed to forage for their natural diet.

For store-bought eggs, be sure to check out Cornucopia's organic egg scorecard that rates 136 egg producers based on 28 organic criteria. According to Cornucopia, their report "showcases ethical family farms and their brands, and exposes factory farm producers and brands in grocery store coolers that threaten to take over organic livestock agriculture."

Another Alternative: Raise Your Own Backyard Chickens

This is the choice I have actually taken. I had a chicken coop built for 20 chickens and I now have 17 hens. The key is what you feed them. I give them 1 1/2 pounds of two-day sprouted field peas and 1 cup of white rice that is cooked with the peas in an Instapot with 4 ounces of tallow.

To that I add 1 ounce of our organic beef organ complex and 1 1/2 ounces of calcium carbonate and a mineral complex. Also feed them 8 ounces of barley. This produces eggs that are VERY low in linoleic acid (about 75% less). As noted in the featured Marketplace report, backyard chickens are making a comeback, as more homeowners are adding free-roaming chickens to their gardens. If you are so inclined, it's by far your best egg sourcing option.

As you can see in the Polyfarm video above, raising chickens is not very difficult. If you are interested in the possibility of raising a few chickens yourself, a good place to begin is by asking yourself a few questions (see below). You can also visit Joel's [Polyface Farm Web site](#) for more details on raising chickens.

1. Can I dedicate some time each day? – You can expect to devote about 10 minutes a day, an hour per month and a few hours twice a year to the care and maintenance of your brood.

2. Do I have enough space? – They will need a minimum of 10 square feet per bird to roam, preferably more. The more foraging they can do, the healthier and happier they'll be and the better their eggs will be.
3. What are the chicken regulations in my town? – You will want to research this before jumping in because some places have zoning restrictions and even noise regulations (which especially applies if you have a rooster).
4. Are my neighbors on board with the idea? – It's a good idea to see if they have any concerns early on.
5. Can I afford a flock? – There are plenty of benefits to growing your own eggs, but saving money isn't one of them. There are significant upfront costs to getting a co-op set up, plus ongoing expenses for supplies.

Sources and References

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- ³ [USDA.gov Organic Livestock and Poultry Practices Final Rule January 2017 Q&A \(PDF\)](#)
- ⁴ [The Balance Small Business October 22, 2018](#)
- ⁵ [Organic Consumers Association February 19, 2014](#)
- ⁶ [Humane Society, Food Safety and Cage Egg Production, 2011](#)
- ⁷ [Humane Society, Food Safety and Cage Egg Production, 2011 \(PDF\)](#)
- ⁸ [Egg Nutrition Center, Egg Nutrition Facts Panel](#)
- ⁹ [Nutr Rev 2009 Nov; 67\(11\): 615–623](#)
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