

Chickenomics: The Economics of Backyard Chickens

Gemma Alexander

Does keeping chickens make better economic sense than buying eggs at the store? As we adjust our lifestyles to the realities of COVID-19 and growing geopolitical conflict, take a moment to consider the humble chicken coop.

The ongoing pandemic has brought to light the fragility of our global food and supply systems. During the early days of the pandemic, food producers were deemed essential and kept operating, but a surge in home baking led to shortages in [flour](#) and [eggs](#). Not finding everything on your shopping list at the grocery store doesn't quite rise to the level of [food insecurity](#), but for most Americans, it was a new and unnerving experience.

Many of our thoughts immediately turned to ways to become more self-sufficient. Not many people have enough land to grow grain for flour, but even a small backyard can house chickens. Is it a good idea?

How Much Is Enough?

Local zoning codes, especially in many urban areas, limit the number of chickens per household to three. So, the coop cannot replace your meat consumption, but the eggs produced can replace what you buy at the store.

The average American eats [almost 300 eggs](#) and nearly [94 pounds](#) of chicken meat per year. A homegrown chicken lays at most [about 250 eggs](#) in the first year of production. This number decreases with age; a five-year-old chicken will produce about half as many eggs as it did in its first year. This means that you will need at least one chicken per household member to supply your family with eggs, and more if you plan to allow chickens to live out their full lifespan regardless of productivity.

Growing [chickens for meat](#) requires a much larger operation. The cooking weight of a chicken is 70 to 75 percent of the live bird weight. At three to five pounds per live bird, an average household would need about 30 birds per family member to provide a year's worth of chicken meat.

You may grow chickens primarily for eggs and only butcher them when they become unproductive (either when they stop laying in the winter of the first year, or after several years when they become less productive even in summer). But be aware that the best breeds for meat are different from the best breeds for egg-laying. Also, most meat chickens are slaughtered before they are a year old. The meat of former egg layers will not be as tender as you are used to.

Chicken Economics

If you have enough space and local regulations allow sufficient numbers, you can self-sufficiently produce your own eggs and chicken meat. Determining whether it's cost-effective is tricky. The price of commercial eggs and meat varies dramatically depending on where you live and farming practices. Eggs can run from about \$1 per factory-farmed dozen to \$7 or more for a dozen organic, free-range eggs.

The cost of growing chickens can also vary widely depending on the [choices](#) you make. Will you build your chicken coops for free from scrap lumber or spend \$1,000 on a fancy kit? Will you provide electric lights and heaters? What kind of feed will you use? By most [estimates](#), homegrown chickens and eggs are [more expensive](#) than factory-farmed; but they can be [competitive](#) with free-range prices.

Even if the dollar cost is higher, you're likely to keep your backyard chickens in [more humane](#) conditions, and their eggs may even be more [nutritious](#) than those from commercial operations.



Eco-chickens

One place where backyard chicken-keeping seems to have a clear advantage is the environmental impact. Commercial chicken farming has improved dramatically – the industry [estimates](#) that its environmental impact has halved since 1965 even as production has increased. But even with those improvements, the impact is still significant.

Greenhouse gas emissions per serving of poultry are 11 times higher than those for one serving of beans. On [average](#), producing 50 grams (or roughly two servings) of chicken generates 2.9 kilograms of CO₂; producing 50 grams of protein from eggs generates 2.1 kilograms of CO₂. Equivalent data is not available for home production. But one [study](#) found that “barnyard” production methods in Australia generated 1.6 kilograms of greenhouse gases for every kilogram of eggs (roughly [120 grams](#) of protein) produced.

You could then expect backyard eggs to have roughly *one-third the carbon footprint* of the average commercial egg.

Growing Greener Chickens

If you keep backyard chickens, feeding your chickens kitchen scraps, using chickens instead of pesticides for pest control in the garden, and using recycled materials to build your chicken coop are all options for making your small chicken operation even [greener](#).

Composting chicken waste or using the [deep litter method](#) will further reduce your impact. You can even use waste materials to reduce the need for electrical heating, further reducing your [chickens' footprint](#).

Keeping chickens requires a lot more work and planning than simply looking for an organic label on egg cartons at the grocery store. But if you are willing to put in the effort, backyard chickens can pay off economically and ecologically.

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