

# PRICE TAG/COST TAG

What costs aren't included in the price of your food?

## Egg

### Price Tag

Eggs cost \$0.69 – \$4.99 per dozen, with organic and free-range eggs at the higher end of this price range. What additional costs are associated with these prices?



### Cost Tag

#### Food Miles

Iowa, Ohio, Indiana, Pennsylvania and California are the five largest egg-producing states, and they represent over 40% of all US laying hens.<sup>1</sup> But you may be able to find local eggs at your grocery store or farmers' market. Ask how the eggs were produced. Research shows that eggs from pasture-raised chickens can be higher in vitamin E and long-chain omega-3 fatty acids than those from hens raised in confinement.<sup>2</sup>

#### Genetic Diversity

The Single Comb White Leghorn hen dominates commercial egg production. A few multinational corporations control most commercial laying hen genetics.<sup>3</sup> The commercial chicken breeds used to produce meat and eggs around the world have lost at least half of the genetic diversity once present among their ancestors.<sup>4</sup> White, brown and green egg laying breeds are available for farmers to raise.

#### Social Costs

Intensive, confined egg production became standard in the 1950s.<sup>5</sup> The cages protected the laying hens from the environment, predators, parasites and disease. However, modern standard cages provide 100 square inches of floor space per bird and have been shown to limit the natural activities of the laying hen.<sup>6</sup> Growing consumer concern about this issue has led to high demand for cage-free, free-range and organic eggs,<sup>7</sup> but consumers should educate themselves about these labels. US egg production has become more concentrated: the number of egg farms decreased 85 percent from 1969 to 1992 and the number of laying hens per farm increased from 632 to 2,985 in that time frame.<sup>8</sup> This large-scale approach means that when there is a food safety problem, as in the 2010 recall of half a billion eggs, it can sicken large numbers of people across the country.

#### Environmental Impact

Wastewater and runoff from the confinement facilities where most eggs are produced can pollute ground and surface water.<sup>9</sup> Buy eggs from farms that practice good stewardship.

The price you pay for your food may or may not include all of the costs associated with it, such as costs to the environment and to the health of those who produce and consume it. Learn all you can about the food you buy—your choices matter!

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<sup>1</sup>USDA NASS. (2010). *Chickens and Eggs 2009 Summary*. (Pou 2-4(10)), p 2. Washington, DC: USDA NASS Retrieved September 21, 2010 ([usda.mannlib.cornell.edu/usda/current/ChickEgg/ChickEgg-02-25-2010.pdf](http://usda.mannlib.cornell.edu/usda/current/ChickEgg/ChickEgg-02-25-2010.pdf)).

<sup>2</sup>Karsten, H.D., P.H. Patterson, R. Stout and G. Crews. (2010). "Vitamins A, E and fatty acid composition of the eggs of caged hens and pastured hens." *Renewable Agriculture and Food Systems* 25(1): 45-54. Retrieved 1/13/11 ([journals.cambridge.org/action/displayAbstract?fromPage=online&aid=7219036](http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=7219036)).

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<sup>3</sup>Sheldon, B.L. (2000). "Research and Development in 2000: directions and priorities for the world's poultry science community." *Poultry Science*, 79:149. Retrieved August 31, 2010 ([ps.fass.org/cgi/reprint/79/2/147](http://ps.fass.org/cgi/reprint/79/2/147)).



<sup>4</sup>Muir, W.M., G.K. Wong, Y. Zhang, et al. (2008). "Genome-wide assessment of worldwide chicken SNP genetic diversity indicates significant absence of rare alleles in commercial breeds." *Proceedings of the National Academy of Sciences of the United States of America*, 105 (45) 17312-17317. Retrieved August 31, 2010 ([www.pnas.org/content/105/45/17312.full.pdf+html](http://www.pnas.org/content/105/45/17312.full.pdf+html)).

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<sup>5</sup>Anderson, K.E. (2009). "Overview of natural and organic egg production: Looking back to the future." *Journal of Applied Poultry Research* 18: 349. Retrieved Sept. 23, 2010 ([japr.fass.org/cgi/reprint/18/2/348.pdf](http://japr.fass.org/cgi/reprint/18/2/348.pdf)).

<sup>6</sup>Pohle, K. and H. -W. Cheng. (2009). "Furnished cage system and hen well-being: Comparative effects of furnished cages and battery cages on behavioral exhibitions in White Leghorn chickens." *Poultry Science* 88: 1559-1564. Retrieved Sept. 23, 2010 ([ps.fass.org/cgi/reprint/88/8/1559](http://ps.fass.org/cgi/reprint/88/8/1559)).

<sup>7</sup>Oberholtzer, L., C. Greene and E. Lopez. (2006). *Organic Poultry and Eggs Capture High Price Premiums and Growing Share of Specialty Markets*. (USDA ERS Outlook Report No. LDP-M-150-1). Washington, DC: USDA ERS. Retrieved 1/13/11 ([www.vifarmerscoop.org/Downloads/organicpoultryandeggs.pdf](http://www.vifarmerscoop.org/Downloads/organicpoultryandeggs.pdf)).

<sup>8</sup>McBride, W.D. (1997). *Changes in U.S. Livestock Production, 1969-92*. (AER754). Washington, DC: USDA ERS. Retrieved 1/13/11 ([www.ers.usda.gov/Publications/AER754/](http://www.ers.usda.gov/Publications/AER754/)).

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<sup>9</sup>US EPA. (2003). *Poultry Production and Environmental Stewardship*. Washington, DC: Office of Enforcement and Compliance Assurance. Retrieved Sept. 30, 2010 ([www.epa.gov/agriculture/poultry.pdf](http://www.epa.gov/agriculture/poultry.pdf)).

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