

Antibiotics and McDonald



Evidently you can bulk up cows and chickens by mixing small amounts of antibiotics into their food. The ratio of meat per animal and how many weeks it takes for an animal to reach market weight has everything to do with how many animals a farm needs to raise in order to make a profit.

In 1950 it was discovered that adding antibiotics to animal feed increased the animal's size and decreased the amount of time needed for the animal to reach its market-size. From then until now animal food has routinely included small doses of antibiotics.

Now we are observing antibiotic resistant diseases in humans. The presence of antibiotics in our food seems to be contributing to or perhaps causing these antibiotic resistant human diseases. Consequently there has been growing demand for antibiotic free meat and McDonalds is joining the movement.

Let's make some comparisons.

In 1925 the time required on a farm to raise a 1.5 kg broiler (chicken raised specifically for its meat) was 120 days. Now a similar sized broiler can be raised in only 30 days. This shorter raising time is not only due to antibiotics and growth hormone but also to newer hybrid species of birds.

1. If your facility could house 1,000 chickens at a time, how many chickens could you raise per year in 1925?
2. If you could still house only 1,000 chickens at a time, how many chickens could you raise in one year at the present rate.

Suppose that you could sell those chickens when they reached their market weight of 1.5 kg (about 3.3 pounds) for \$1.14 per pound.

3. How much would you have earned in 1925 for those chickens? Please show your work.
4. How much would you have earned in 2011 for those chickens? Please show your work.
5. Why do you think people who raise chickens would want to use antibiotics? Why might restaurants or grocery stores want to sell chickens raised with antibiotics?
6. If McDonalds (joining the trend with Chick-fil-A, Chipotle, Whole Foods and Panera) begins buying only chickens raised without antibiotics or growth hormones how do you suspect a meal at McDonald's will change?

Whole Foods, a U.S. natural foods grocery chain, promises that their chickens are raised without antibiotics or growth hormones. This week at my local Whole Foods store the cost of a whole broiler chicken is \$2.99 per pound. At our local Stop and Shop store, whole broiler chickens are on sale at \$1.69 per pound.

7. Compare the prices for a 3-pound whole chicken at Whole Foods and Stop and Shop.

8. We've listed a recent chicken price list at McDonald's below. How much do you predict the future prices of these items could become?

Item	Price	Future price?
10-piece Chicken McNuggets	\$4.29	
20-piece Chicken McNuggets	\$4.99	
Classic Chicken Sandwich	\$3.99	

McDonalds promises to replace its present chicken products with chicken that is raised without antibiotics that are important to human medicine by 2016.

I wondered how chicken farming would have to change in order to satisfy McDonald's projected needs and the needs of all of the retailers who are moving towards antibiotic-free food.

I did some more research but comparisons of chicken farming requirements weren't easy to interpret.

At present, intensive chicken farms might have a flock of 20,000 broilers in a shed that measures 400 feet long and 50 feet wide.

9. About how much space do you figure that each chicken would have in one of these sheds?

Antibiotic-free chickens will need more space and the ability to be outside for some part of every day to get more exercise, to be able to forage, peck, and scratch and consequently have healthier legs and hearts. In Europe a free-range chicken must have one-square meter of outdoor space. Free-range chickens grow more slowly. They might not reach market-weight until they are 8 weeks old.

10. As best as you can, describe the size that a chicken farm would need to be in order to raise 20,000 free-range chickens.

Chicken farms receive chicks of the same age from hatcheries and then raise them until they are of marketable weight. This is called one brood of chickens. A brood cycle is the length of time that it takes to raise a chick to an adult, sellable bird.

11. How many broods might your farm be able to produce in a year?

12. How do you think this trend towards open-air, antibiotic-free meat will affect chicken farmers?

13. Do you think that this will be a good change? Please explain.

Sources: <http://www.pbs.org/wgbh/pages/frontline/shows/meat/safe/overview.html>

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