🐓 Bye-bye Antibiotic Chickens🐓

Did you know that adding antibiotics to animal feed can help chickens and cows grow bigger, and faster? This has been a common practice since the 1950s to help farms save time and money. But now, scientists believe this might be causing antibiotic-resistant diseases in humans. That's why there's a big push for farms to stop using antibiotics in animal feed, and McDonald's is joining the movement!

In 1925, it took 112 days to raise a chicken to market size (about 2.5 to 3.5 pounds). Today, chickens grow much bigger—about 6.5 pounds—in just 47 days!

1. Compare how many chickens you could raise in a year in 1925 versus today if you could house 1,000 chickens at a time.

Today, chicken is sold for about $1.46 per pound.

2. Suppose you sell the chickens when they reach their market weight of 1.5 kg. (1kg ≈ 2.2 lbs). How much would you have earned in 1925? How much would you earn today? Show your work.

3. Does the price difference in the previous question make sense? Do you think the price difference would actually be higher or lower? Why?

4. Why do you think farmers might want to use antibiotics when raising chickens? And why might restaurants or grocery stores want to sell chickens raised with antibiotics?

Whole Foods, a natural foods grocery chain in the U.S., guarantees that its chickens are raised without antibiotics or growth hormones, priced at $2.99 per pound. In comparison, a similar chicken at a smaller local grocery store, likely containing antibiotics, costs $1.69 per pound.

5. Based on the price differences between Whole Foods and a local grocery store, *estimate* the price of chicken McNuggets at McDonald's if they switch to selling only chicken raised without antibiotics. Keep in mind that this is a *rough estimate*. Be sure to show your work.

Item	Price	Future price (antibiotics free)
10 Piece McNuggets	$5.60	
20 Piece McNuggets	$6.59	

If McDonald's and other restaurants decide to use only chickens raised without antibiotics, chicken farms might need to change how they raise their chickens to meet the demand. Some chicken farms today keep as many as 20,000 chickens in one large shed. These sheds are about 400 feet long and 50 feet wide. (1 foot ≈ 30.48 cm)

6. Calculate how much space each chicken has in one of these sheds. Compare it to something you know and explain if you think that's enough space.

7. How much space do you think would be reasonable to give each chicken (antibiotic-free) and why?

8. How do you think the shift to all antibiotic-free chicken will affect farmers, consumers, and businesses? Do you think this change is a good idea? Why or why not?

Sources:
https://feedthemwisely.com/fast-food-restaurants-antibiotics
https://www.alltech.com/blog/future-antibiotics-poultry-feed