

FACTORY FARMS USE THIRTY MILLION POUNDS OF ANTIBIOTICS A YEAR (AND YOU ARE EATING SOME OF IT)¹

Leah Zerbe[©]

For the first time ever, the U.S. Food and Drug Administration (FDA) compiled and released the amount of antibiotics used in animals raised for people to eat, and the amount is even higher than previous estimates from environmental advocacy groups. The FDA concludes that in 2009 alone, farmers used nearly 30 million pounds of antibiotics. A cocktail of drugs, often the same types people rely on, are routinely used to make animals grow faster and to help keep them alive in filthy, crowded conditions that stress them and compromise their immune systems. The concentration of animals and the speedier growth make meat cheaper at the grocery store, but also produce a health threat. "The use of antibiotics in this context is particularly concerning from a public-health perspective because it has been repeatedly demonstrated that use of these drugs in the animal-production setting speeds the selection for bacteria that are resistant to antibiotics," explains Keeve Nachman, PhD, assistant scientist and director of the Farming for the Future program at Johns Hopkins Center for a Livable Future, part of the university's Bloomberg School of Public Health. "Infections with these resistant bacteria often do not respond well to antibiotic therapy, which means that treatment can be very expensive and may take longer or, ultimately, be ineffective."

Complicating the matter, consumers could be exposed to these antimicrobial chemicals or the superbugs they create from multiple sources: through antibiotic residues and superbugs already in the supermarket meat itself, in runoff from farms that can contaminate water supplies, or even in pelletized or bagged factory-farm poop marketed as "organic compost." And legislation put forth to tackle the problem of using dangerous amounts of antibiotics seems to be going nowhere.

THE DETAILS: The FDA report didn't distinguish between antibiotics used to treat legitimately sick animals and the doses routinely fed to livestock to speed growth and overcome crowding. But the nonprofit consumer- and environmental watchdog group Union of Concerned Scientists previously estimated that 24 million pounds are used annually on farm animals to make them grow faster. The implications of that are becoming more clear in recent years. A recent study comparing hospital stays for two types of infections (methicillin-resistant *Staphylococcus aureus*, commonly referred to as MRSA, and methicillin-susceptible *Staphylococcus aureus*) found that infections with the resistant strain resulted in hospital stays that were 14 days longer, on average, and about five times as expensive, compared to infections with the strain that's susceptible to antibiotic treatment. "The nature of antibiotic use in industrial food-animal production threatens the utility and availability of these precious resources," says Nachman.

There's another dangerous antimicrobial used in poultry production that poses a problem for the public. Roxarsone is a drug that contains arsenic (a human carcinogen) that's used to promote faster growth, improve color, and kill off intestinal parasites. Nachman says a recent industry estimate puts Roxarsone use at 88 percent of domestically produced chickens grown for meat. "The use of roxarsone in broiler chickens has been demonstrated to leave residues of arsenic in the edible meat of the birds, and also results in the excretion of arsenic into poultry

¹ Rodale News, December 22, 2010

waste," explains Nachman. "People can be exposed to arsenic by eating chicken, and also by coming into contact with poultry waste that has been used as fertilizer."

He adds that the poultry industry recently started pelletizing poultry waste for sale as residential fertilizer, and in some cases these pellets are even marketed as organic fertilizer. In addition to being a carcinogen, arsenic has been associated with a variety of other human health consequences, such as cardiovascular disease, diabetes, and neurological deficits, when people have routine low-level exposures to it.

WHAT IT MEANS: Most antibiotics used in this country are used to make farm animals we eat grow faster, and it's causing a public-health disaster by rendering some of our most important drugs useless. Here's just one example of how overuse in the industrial food system impacts humans in life-threatening ways. According to Princeton University, the effectiveness of Cipro, an antibiotic used to treat food poisoning and other bacterial ailments, is in jeopardy since industrial farming started using a similar antibiotic in 1996. Currently, resistance to Cipro is at more than 20 percent. Before the FDA approved the antibiotic for use on poultry, resistance was negligible.

The above scenario and dozens of other case studies prompted the American Medical Association to come out against factory farm use of antibiotics several years ago. Congress isn't cutting doctors and consumers any breaks, though, although legislators do appear to be throwing the factory-farming industry a bone. Nachman says the Preservation of Antibiotics for Medical Treatment Act appears to be the most viable legislative mechanism for limiting antibiotic use in food-animal production, though the current political climate and the shifts in Congress would suggest it is unlikely that the bill will survive. Beyond that, he said, the recent draft guidance for industry from FDA called "The Judicious Use of Medically Important Antimicrobial Drugs in Food-Producing Animals" implies that the agency will not be taking action to limit antibiotic use, but instead will suggest voluntary compliance. "So, in short, no, I don't think we have reason to expect that any legislative or regulatory changes will occur that will force food-animal producers to limit or curtail antibiotic use in the near future," Nachman says. It's consumers who will have to drive change.

Here's how you can help keep antibiotics out of the food chain.

- (1) **Eat healthier meat.** Look for grass-fed animal products. Studies have shown the eggs and meat of pastured farm animals is much higher in nutrients and beneficial fatty acids compared to animals kept inside and fed unnatural diets on feedlots. Search EatWild.com or LocalHarvest.org for sustainable-meat options. If animals are fed supplemental feed, ask to make sure it doesn't contain arsenic. Arsenic, along with antibiotics, pesticides, and genetically engineered crops are banned in organic production.
- (2) **Eat less meat, so you can afford healthier meat every once in awhile.** Factory farming masks the true price of meat. That price includes cruelty, because animals are denied the space, land, and sunshine required to live a normal life. But now we're all starting to pay the hidden costs, in health problems and the development of medication-resistant supergerms.