

Importance of Ensuring Antibiotics Remain Viable Tool in Animal Health

The animal agriculture industry in the United States is continuously under pressure to make more from less. While meat consumption is increasing (projected to hit a record high of 222.2 pounds per capita in the US in 2018),¹ so are calls to reduce environmental impact and use fewer resources. Farmers embrace that challenge and rely on a variety of tools and technologies to continuously increase efficiency. Unfortunately, these tools are frequently attacked by activist organisations, leading to consumer confusion and ultimately restrictions or outright bans. Antibiotic use in livestock is currently in the spotlight in the US, despite its importance in ensuring animal health.

One example of tools being taken off of the table is bovine somatotropin (bST), an animal drug to increase milk production in dairy cows. bST can increase milk production by up to 40 per cent² depending on when it is administered, allowing farmers to produce more milk from fewer cows. The Food and Drug Administration approved bST for use in November 1993 and commercial sales began in 1994 under the trade name Posilac. During the first 20 years of commercial use in the US, over 35 million dairy cows received bST supplementation.³ Despite numerous health and safety organisations, as well as national regulatory agencies like the Food and Drug Administration, confirming the safety of milk and meat from bST-treated cows for human consumption,⁴ the product came under attack by special interest groups. Some companies exploited consumer concerns by using absent-claim marketing on their labels. This created negative public sentiment about bST use and led to several grocery brands and restaurants announcing bans, including Walmart, Kroger, Chipotle, Starbucks and Trader Joe's.

It is concerning to think about antibiotic use in livestock going down a similar path, but we need to be aware of that possibility. America's farmers, ranchers and veterinarians have an ethical obligation to care for their animals and they take that responsibility seriously. Antibiotics are important tools for veterinarians tasked with protecting animal health and preventing suffering from disease. Recognising that

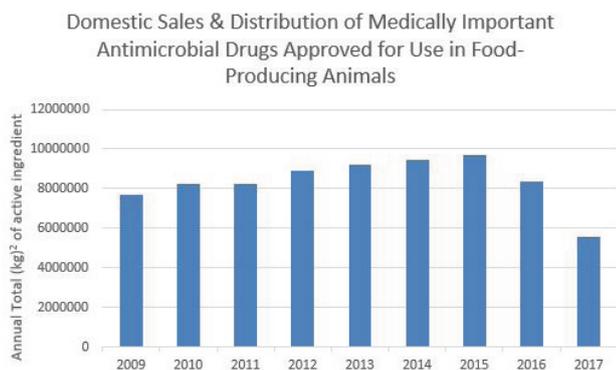


Figure 1 Variation of Figure 7c from the 2017 Summary Report on Antimicrobials Sold or Distributed for Use in Food-Producing Animals. Source: <https://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm628504.htm>

keeping antibiotics effective and available for use is essential, the US animal agriculture industry has worked proactively to address concerns about antibiotic resistance. As of January 1, 2017,^{5,6} antibiotics that are similar to those used in human medicine cannot legally be used to promote growth in food animals. The growth promotion uses of medically important antibiotics have been eliminated, and all remaining uses of these antibiotics in feed and water can only be administered under the supervision of a veterinarian.

FDA's recent *Antimicrobials Sold or Distributed for Use in Food-Producing Animals* report offers promising results, documenting a reduction of 33 per cent in sales and distribution of medically-important antibiotics between 2016 and 2017 (noteworthy as 2017 was the first year that new guidelines were implemented).⁷ Other results included a 43 per cent decline in domestic sales and distribution of all medically-important antibiotics since 2015 (peak year of sales/distribution) and that 49 per cent of antibiotics sold were types not used in human medicine. Unfortunately, these proactive efforts and positive strides are not enough for determined activist groups – some who want to eliminate animal agriculture altogether. Antibiotic resistance is a crucially important topic that drives a lot of media attention and consumer interest and misleading claims from special interest groups have made it seem like eliminating the use of antibiotics in livestock and poultry is the key to solving the problem. Activists claim that antibiotics are only needed on farms because of "crowded, stressful and unsanitary conditions."⁸ Critics also attempt to drive concern by citing the figure that 80 per cent of antibiotics in the US are given to livestock, ignoring the fact that there is very little overlap between the types of antibiotics used for livestock and poultry and those used for people (there are also many, many more animals in the US than people, so it isn't surprising that the amount of antibiotics needed would be higher).



Figure 2 Social media graphic from the Animal Agriculture Alliance.

Despite not being grounded in reality, the negative rhetoric surrounding antibiotic use in animal agriculture has contributed to new, increasingly restrictive laws and company policies. Maryland passed the Keep Antibiotics Effective act in 2017,⁹ which prohibits the use of antibiotics in livestock and poultry to promote weight gain or improve feed efficiency. California also passed a law that went into effect January 1, 2018 requiring all medically important antibiotics to be administered with a prescription or veterinary feed directive issued by a licensed veterinarian.¹⁰ The city of San Francisco passed an ordinance in 2017 requiring retailers with more than 25 locations (and at least one in the city) to report the use of antibiotics in their meat and poultry supply chains.¹¹ The reporting requirements are reduced for stores with a policy prohibiting the use of medically important antibiotics across all meat and poultry types, indicating that the true intention may be to push stores in that direction. It's worth noting that none of these laws include any provisions relating to the use of antibiotics in human medicine. Doctors and other healthcare professionals in the US issued nearly 270 million prescriptions in 2015, one-third of which were unnecessary, according to the Centers for Disease Control.¹²

Restaurant and retail brands have also begun adopting policies for their suppliers that restrict how antibiotics can be used. Some company policies simply echo existing FDA guidance, such as Target's: "We believe sick animals must be treated appropriately to end or reduce suffering. When antibiotics or antimicrobials are administered by a registered veterinarian, using them judiciously for therapeutic purposes, they play a critical role in the overall well-being of an animal. However, we do not support the use of routine, non-therapeutic antimicrobials to promote growth. We expect our suppliers and the producers they work with to phase out this practice and only use antimicrobials when medically necessary."¹³

Other companies, such as KFC, do not allow the use of antibiotics important to human medicine in their chicken supply: "By the end of 2018, all chicken purchased by KFC in the US will be raised without antibiotics important to human medicine."¹⁴ Some take the concept a step further, requiring their chicken to be produced in "no antibiotics ever" production systems. Chick-fil-A's policy reads: "ZERO

Added Antibiotics. This doesn't just mean that we avoid antibiotics that are important to human medicine, or that we only avoid routine use. It means that our suppliers use NO antibiotics of any kind – as defined by the US Food and Drug Administration (FDA) – starting from the egg. No antibiotics can be used in the feed, water, commercial vaccines, or other treatments, including ionophores. While birds that need antibiotics for medical reasons can still be treated for their wellbeing, birds that have been treated can no longer be included in Chick-fil-A's supply chain. No use of human or animal antibiotics. No. Antibiotics. Ever."¹⁵

The most extreme policies are aimed at eliminating antibiotic use for all species. Subway's states: "Our policy is that antibiotics can be used to treat, control and prevent disease, but not for growth promotion of farm animals. We recognise that antibiotics are a critical tool for keeping animals healthy and that they should be used responsibly to preserve their effectiveness in veterinary and human medicine. Nevertheless, we and our suppliers believe there is room for improvement, and as such are working to reduce and, over time, eliminate their use...The transition is expected to take 2-3 years. Supply of pork and beef products from animals raised without antibiotics in the US is extremely limited. We expect our transition to take place by 2025."¹⁶

This move toward "no antibiotics ever" (NAE) or "raised without antibiotics" production raises many concerns among farmers, veterinarians and animal health experts about animal welfare and sustainability. According to one study, the average mortality rate for broiler chickens raised without antibiotics can be 25 to 50 per cent higher than for conventionally raised birds.¹⁷ Birds raised without antibiotics are also more likely to suffer from painful medical conditions, including being three times more likely to experience ammonia burns in their eyes.¹⁸ Removing antibiotics from production also reduces efficiency. Due to higher disease and mortality rates within NAE flocks, more than 680 million additional birds will need to be raised annually to meet poultry demand in the US. That increase would come at a considerable cost to sustainability, requiring almost 2 billion additional gallons of water and more than 5 million tons of additional feed per year.¹⁹

ANTIBIOTIC USE POLICIES



Figure 2 source: Animal Agriculture Alliance

In mid-2018, a team of researchers led by Randy Singer, Ph.D., D.V.M., professor of epidemiology at the University of Minnesota, surveyed veterinarians and farmers to identify the impact of NAE production on farm animal welfare.²⁰ A total of 565 completed responses were received from veterinarians, producers, and other stakeholders involved directly in raising broilers, turkeys, swine, beef cattle or dairy cattle. Across all surveyed commodities, respondents indicated that reasons for switching to NAE were market-driven, rather than being motivated by concerns for animal health and welfare. In fact, concerns for animal health and welfare were the most commonly cited reasons for not participating in an NAE system.

Most veterinary and producer respondents indicated that NAE production leads to decreased production efficiency and negatively impacts animal health and welfare. However, respondents indicated that they think retail, restaurant and food service company leadership believe that animal health and welfare are significantly improved with NAE programmes. Perhaps the most alarming result was respondents indicating there are times that maintaining the NAE label is prioritised over animal health and welfare. Putting animal health and welfare at risk to make a label claim flies in the face of the animal agriculture industry's commitment to providing quality care to livestock and poultry.

Both of these studies indicate a clear need for increased efforts from the animal agriculture industry to connect with key stakeholders and communicate the importance of antibiotics as a tool in managing disease threats and other animal health challenges. While we recognise that maintaining the effectiveness of antibiotics and addressing antibiotic resistance are critical, ensuring that we are producing meat, poultry, dairy and eggs responsibly is as well. Responsible production includes paying careful attention to animal health and keeping environmental impact at a minimum. Removing antibiotic use in animal agriculture clearly causes issues in meeting both of those goals.

If we don't want antibiotics to go the way of bST, now is the time to step up and have conversations with legislators, regulators, the media, restaurant/retail/food service brand



Antibiotics

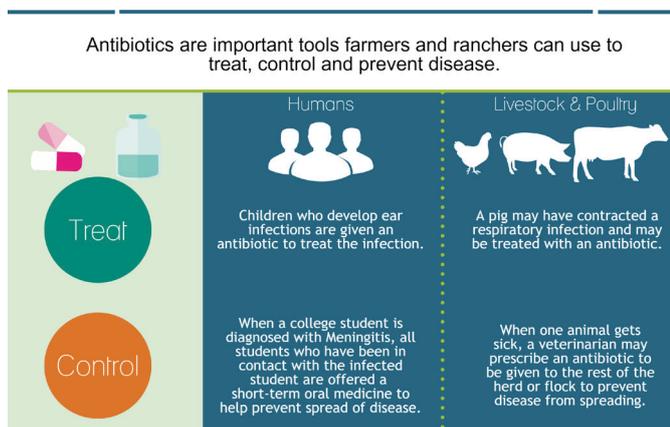


Figure 3 Source: Animal Ag Alliance.
View full infographic: <https://www.animalagalliance.org/resourcelibrary/results.cfm?ID=632>

leaders and other influencers. We need to communicate the message that while activist groups continue to elicit fear and spread misinformation, the animal agriculture community strives to find solutions by working with groups that have a vested interest in providing the best care possible to farm animals while providing safe, nutritious food to the public.

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