

TIMELY INFORMATION

Agriculture & Natural Resources

Responsible use of antibiotics in beef cattle

Dr. Soren Rodning, Auburn University

Recently, the use of antibiotics in livestock has received a lot of national attention, so now is a good time to consider some important facts about the antibiotics used in beef cattle.

Antibiotics, or antimicrobials, are medications used to treat bacterial infections. A top priority of cattle producers is to maintain the health and well-being of their animals. Treating sick animals appropriately with antibiotics promotes animal and human health and well-being because healthy animals = healthy food = healthy people.

Are antibiotics safe to use in beef cattle?

Yes, antibiotics go through a stringent Food and Drug Administration (FDA) approval process for safety and efficacy, and by law, no meat sold in the United States is allowed to contain antibiotic residues that violate FDA standards.

FDA approval process

Antibiotics used in beef cattle undergo a thorough evaluation process before the FDA grants final approval for use in animals. The Center for Veterinary Medicine (CVM) within the FDA ensures that animal drugs are safe, efficacious, and manufactured properly. Human safety is also an important aspect of the animal antibiotic approval process. The FDA establishes withdrawal times for the minimum number of days required between the last antibiotic treatment and the day the animal can enter the human food supply. Withdrawal times ensure that antibiotic residues are no longer present when the animal enters the food supply. Everyone that administers antibiotics to animals is required by law to adhere to all withdrawal periods.

Monitoring beef products for antibiotic residues

In addition to established withdrawal times, surveillance for antibiotic residues in beef helps prevent contaminated products from entering the human food supply. The U.S. Department of Agriculture's Food Safety and Inspection Service routinely tests beef products entering the food supply to ensure they do not contain antibiotic levels that violate FDA standards. The testing protocol has been in place since 1967 and is continuously updated based on current information to provide the most thorough protection possible.

Key points to consider regarding the judicious use of antibiotics

1. Prevent problems: good animal husbandry (nutrition, hygiene, low stress handling, vaccinations, deworming, etc.) can prevent disease. Antibiotics should never be used in place of good husbandry.
2. Adhere to all antibiotic label directions unless you are following a written prescription from your herd veterinarian. This includes treating for the recommended time period and adhering to withdrawal periods.
3. Follow all Beef Quality Assurance guidelines with respect to antibiotic storage, administration, and record keeping.
4. Avoid using antibiotics important to human medicine.
5. Use a narrow spectrum of antibiotics. Combination antibiotic therapy is discouraged. In other words, use a medication that is labeled to treat the specific condition present. Do not use more than one antibiotic at a time.
6. Treat as few animals as possible, but always strive to maintain healthy animals.
7. Subtherapeutic antibiotic use is discouraged. Antibiotic use should be limited to prevent or control disease.

If you have questions regarding the use of antibiotics in livestock either contact me, your veterinarian, or your extension agent.