

Antibiotic Use in Cattle

Information on how beef is raised – especially when it comes to the use of antibiotics – can be confusing.



Farmers and ranchers use many management practices to limit the use of antibiotics.

Working hand-in-hand with their veterinarian, they make decisions for their animals following the U.S. Food and Drug Administration's (FDA) updated guidance.

Here are the facts

ANTIBIOTICS ARE JUST ONE TOOL TO KEEP CATTLE HEALTHY.

Antibiotics are just one tool used by cattle farmers to ensure the health of their animals. Farmers and ranchers work with their veterinarian to develop a preventive herd health plan including routine vaccinations to promote strong immunity against common cattle diseases.

At the same time, when animals do become sick on occasion, not providing adequate treatment would be inhumane. When that happens, cattlemen work closely with veterinarians, using precise doses of an antibiotic to prevent, treat or control specific diseases or conditions.

Guidelines for administering antibiotics to cattle are established at the national level.

FDA guidance (GFI#209, GFI#213, GFI#263) requires increased veterinary oversight when using antibiotics that are important in both human and animal medicine.¹ This guidance:

- Supports judicious use of antibiotics;
- Removes the use of antibiotics for growth purposes;
- Transitions over the counter medically important antibiotics to veterinary prescription;
- Promotes the veterinarian-client-patient relationship and close partnership between a veterinarian and beef farmers and ranchers.

Additionally, the [Beef Quality Assurance \(BQA\)](#) program, which has been in place since the 1980s, is a nationally coordinated, voluntary program with guidelines for cattle farmers and ranchers to continually improve animal care, including 12 guidelines for use of antibiotics. More than 85% of the domestic beef supply is raised by producers trained in BQA guidelines.^{2,3}

The BQA program emphasizes partnering with a veterinarian to develop a herd health plan to prevent diseases and promote animal health and welfare. BQA has a convenient resource for ranchers, "[Antibiotic Stewardship for Beef Producers](#)," to make sure they have the latest information on responsible antibiotic use.

BQA includes 12 guidelines for judicious use of antibiotics in cattle.

Cattlemen use many strategies to encourage healthy herds.



The beef industry is committed to the **responsible use** of antibiotics.

DATA DOES NOT

support claims that meat from animals without antibiotics is safer or healthier for you.^{5,6}

Cattle farmers and ranchers have many tools to keep their animals healthy, including nutrition programs, veterinary care, proper housing, management practices, vaccines and antibiotics, when necessary.

Still, farmers, ranchers, veterinarians, the FDA and the U.S. Department of Agriculture (USDA) are committed to ensuring that meat that enters the food supply is safe.

They do this by implementing required withdrawal times on the label, which is the time between when an animal was given an antibiotic and the time it enters the food supply. The USDA then tests beef for withdrawal time compliance.⁴

Cattlemen have no added incentive to use antibiotics.

Antibiotics are judiciously used to protect individual animals and the herd from illness.

Cattle may be given antibiotics during stressful moments of their lives when they are more susceptible to illness such as when they are weaned from their mother or commingled with cattle from other herds. This use protects both the individual animal and the rest of the herd as well as may keep a potential illness from spreading.

Antibiotics are not inexpensive and can provide a significant expense for cattle farmers and ranchers. Cattlemen have no added incentive to use antibiotics except as outlined by a veterinarian as part of their animal care plan. These products are only used to treat, prevent and control diseases under oversight of a veterinarian.

Some cattle farmers and ranchers choose to use ionophores — a special class of antibiotics not used in human medicine that help cattle digest their feed better. This use results in more efficient cattle growth while preserving resources like land, water and feed. Ionophores are not known to create any form of antimicrobial resistance.

Partnerships between veterinarians, farmers and ranchers are vital to caring for cattle.

1 FDA Guidance for Industry #209. Source FDA 2012, FDA Guidance for Industry #213. Source FDA 2013, and FDA Guidance for Industry #263. Source FDA 2023
2 Beef Quality Assurance certification database
3 BQA.org <https://www.bqa.org/>, 2024
4 USDA Food Safety Inspection Service Directive 10800.1 Residue Sampling, Testing and Other Verification Procedures under the National Residue Program for Meat And Poultry Products. Source: USDA FSIS 2022.
5. Doster E, Thomas KM, Weinroth MD, Parker JK, Crone KK, Arthur TM, Schmidt JW, Wheeler TL, Belk KE, Morley PS. Metagenomic characterization of the microbiome and resistome of retail ground beef products. *Front Microbiol* 2020; 11:541972. [doi: HYPERLINK "https://url.us.m.mimecastprotect.com/s/r57RCQWKP9SXxMJMxsfEHGkxWo?domain=doi.org"10.3389/fmicb.2020.541972].
6. Schmidt JW, Vikram A, Doster E, Thomas K, Weinroth MD, Parker J, Hanes A, Geornaras I, Morley PS, Belk KE, Wheeler TL, Arthur TM. Antimicrobial Resistance in U.S. Retail Ground Beef with and without Label Claims Regarding Antibiotic Use. *J Food Prot.* 2021 May 1;84(5):827-842. doi: 10.4315/JFP-20-376.



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