

FDA 101: Animal Feed

As long as the Food and Drug Administration (FDA) has been regulating food for people, it has also regulated food for animals, including animal feed for millions of chickens, turkeys, cows, pigs, sheep, and fish. In addition, FDA regulates pet food for America's more than 177 million dogs, cats, and horses.

The Federal Food, Drug, and Cosmetic Act requires animal feed, like human foods, to

- be pure and wholesome
- be produced under sanitary conditions
- contain no harmful substances
- be truthfully labeled

As is also the case for human foods, the act does not give FDA the authority to require approval of animal feed, including pet food, before it is marketed. But the agency has the authority to take action against feed products that are in violation of the law. And FDA approves the additives or drugs that are used in feed products.

Animal feed manufacturers are responsible for ensuring that

- feed is truthfully labeled
- feed does not contain unsafe additives or contaminants
- if the feed contains drugs, the drugs are approved by FDA for use in animal feeds



Black Star / Dennis Brack for FDA

An FDA research pharmacologist is developing tests to detect certain proteins that are prohibited in cattle feed.

FDA encourages food-animal producers and veterinarians to apply good judgment and common sense in using animal drugs.

Federal and state regulatory agencies work cooperatively to provide the rules, guidance, and oversight to assist industry in producing and distributing safe animal feed and feed ingredients.

Medicated Feed

Drugs may be added to some animal feeds to prevent or treat diseases, or to improve animal growth and productivity.

“The use of drugs in the food of animals is essential to keep animals healthy,” says Steven D. Vaughn, D.V.M., director of the Office of New Animal Drug Evaluation in FDA’s Center for Veterinary Medicine. “Administering drugs to animals takes into consideration the best methods for providing the needed medicine while minimizing the stress to the animals.”

For example, coccidiosis is a disease that commonly infects chickens and can cause death if untreated. The parasites responsible, coccidia, are passed in the droppings and can infect other chickens housed near the sick chickens.

“It’s not practical for the poultry farmer to isolate and individually dose chickens within a flock,” says Vaughn. “Catching, restraining, and handling chickens can be stressful and potentially harmful to the animals, particularly if they are already stressed due to disease. Providing medication through the feed or drinking water eliminates the stress to the animals. Medicated feed to treat all the chickens is necessary for good animal health, and ultimately to the health of humans who consume the chicken products.”

The types of drugs that may be used in feed include

- antimicrobials (such as antibacterial drugs) to fight infections
- anticoccidials to fight coccidial parasites
- hormonals to suppress estrus (the female “heat” cycle) in cattle
- anthelmintics to fight parasitic worms
- sulfonamidics to fight certain types of infections
- beta agonists to promote leanness in animals raised for meat
- anti-bloating drugs to prevent swelling of the stomach compartments or intestinal tract of cows caused by excessive gas

Residues and Resistance

FDA is responsible for assuring that animal drugs and medicated feeds are not only safe and effective for animals, but that food products from treated animals are safe for humans to consume. This safety responsibility includes making sure that drugs used in medicated feed

- do not leave hazardous residues in human foods, such as milk, meat, and eggs
- do not contribute to antimicrobial resistance—the ability of bacteria and other microbes to grow in the presence of a drug that would normally kill them or limit their growth

Before a drug can be approved for a food-producing animal, FDA requires the drug sponsors to provide data to show

- how much drug remaining in the animal’s system (residue) would be safe for people to consume

- that the concentration of actual residue in the edible part of the animal would not result in a person consuming more than the safe level
- the potential for the drug, if it’s an antimicrobial drug, to contribute to antimicrobial resistance

FDA has produced guidance to help drug makers provide these data. For example, FDA provides a scientific process for determining the likelihood that an antimicrobial drug used to treat an animal may cause an antimicrobial resistance problem in humans consuming products from that animal. This process can help prevent drugs with a high risk of causing such problems from being improperly used in food-producing animals, potentially leading to antimicrobial resistance in humans.

While recognizing that drugs in animal feed are essential, FDA encourages food-animal producers and veterinarians to apply good judgment and common sense in using animal drugs.

“The judicious use of all drugs in animals, particularly food-producing animals, is very important,” says Vaughn. “The use of medicated feeds in food-producing animals is evaluated and regulated to prevent harmful effects on both animal and human health.”

Manufacturers can do their part in providing safe and effective feed products by properly mixing the feed and complying with regulations that require current good manufacturing processes (cGMP) for medicated feeds. In addition to guidance, FDA provides brochures, videos, and other products on its Web site to encourage judicious drug use in animals.

The law requires feed manufactur-

ers to be licensed if they use certain types of medication in manufacturing their feeds. FDA and the state inspect these licensed facilities routinely to make sure they are complying with cGMPs. During FY 2008 (Oct. 1, 2007, through Sept. 30, 2008), FDA conducted 453 inspections of licensed medicated feed manufacturers throughout the United States.

Mad Cow Disease

As the regulator of animal feed, FDA plays a key role in protecting U.S. cattle from bovine spongiform encephalopathy (BSE), also called “mad cow” disease, and protecting the health of people who consume cattle products. In April 2008, FDA issued a final regulation barring certain cattle materials from all animal feed, including pet food. The banned materials are the cattle tissues that have the highest risk for carrying the agent thought to cause BSE. The final regulation strengthens a 1997 feed regulation and subsequent amendments to protect animals and consumers against BSE.

Since the 1997 feed regulation was established, FDA and state inspectors have conducted more than 66,000 inspections involving more than 15,000 firms that handle animal feed. More than 99 percent of these facilities are in compliance with the regulation.

Pet Food

Pet food, including dry and canned food and pet treats, is considered to be animal feed. Like other animal feed, FDA regulates pet food and establishes standards for labeling.

Pet food labeling is regulated at two levels: federal and state. The federal regulations, enforced by FDA’s Center for Veterinary Medicine, establish standards that apply to all animal feeds:

- proper identification of the product
- net quantity statement
- manufacturer’s address
- proper listing of ingredients

Some states also enforce their own labeling regulations. Many of these follow the model pet food regulations of the Association of American Feed Control Officials (AAFCO), a non-government advisory body with representative regulatory officials from all the states. These model regulations are more specific than federal regulations, covering aspects of labeling such as product name, nutritional adequacy statement, feeding directions, and calorie statements.


FDA carries out its animal feed regulatory responsibilities in cooperation with state and local partners, and works together with AAFCO on uniform feed ingredient definitions and proper labeling.

Improvements to Feed Safety

FDA is improving its Animal Feed Safety System, a program first established in 2003 to protect human and animal health by ensuring safe feeds. The system covers a broad range of agency activities from pre-approving additives for use in feed, to establishing limits on feed contaminants, providing education and training to federal and state feed regulatory personnel, conducting inspections, and taking enforcement actions to ensure compliance with agency regulations.

FDA is also taking action to improve the safety of pet food and ingredients used to make pet food, such as

- establishing ingredient standards and definitions, processing standards, and labeling standards for pet food
- establishing an early warning system to identify pet food in violation of regulations, to identify illness outbreaks, and to notify veterinarians and others of pet food recalls
- establishing a searchable database of recalled human and pet foods to ensure effective communications during a recall

- establishing a “reportable food registry” for animal feed as well as human food. Reportable food is any food that carries a reasonable probability that its use or exposure to it will cause serious health consequences or death to humans or animals
- collaborating with state regulators and academic partners to set up a network for reporting and investigating unexpected and undesirable signs (adverse events) in pets 

This article appears on FDA’s Consumer Updates page (www.fda.gov/ForConsumers/ConsumerUpdates/default.htm), which features the latest on all FDA-regulated products.

For More Information

Animal Food & Feeds
www.fda.gov/AnimalVeterinary/Products/AnimalFoodFeeds/default.htm

Animal Health Literacy
www.fda.gov/AnimalVeterinary/ResourcesforYou/AnimalHealthLiteracy/default.htm

Safe Handling Tips for Pet Foods and Treats
www.fda.gov/ForConsumers/ConsumerUpdates/ucm048182.htm

Your Guide to Reporting Problems to FDA
www.fda.gov/ForConsumers/ConsumerUpdates/ucm095859.htm

Judicious Use of Antimicrobials
www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/JudiciousUseofAntimicrobials/default.htm