



BUL 918

BQA – Feedstuff Guidelines

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The Veterinary Feed Directive (VFD) is a national initiative, supported by the Beef Quality Assurance (BQA) program, to increase consumer confidence that beef products are free of any violative residues.

Key Points

- Records should be carefully maintained to track which batches of feed are fed to specific lots of cattle.
- All feed should be tested to ensure only uncontaminated feed is used and rations are calculated to meet nutrient requirements for optimal performance and efficiency.
- Feed that is spoiled or contaminated reduces intake and carcass quality and should not be fed to feedlot cattle.



Maintaining records

PRODUCERS MUST BE ABLE TO DOCUMENT the safety of their product by maintaining accurate records of the feedstuffs produced and fed on their operations.

Records of pesticides and herbicides applied to crops being grazed or fed to cattle must be maintained. Many pesticides and herbicides used on crops have withdrawal periods, specifically if the crop is to be harvested as a forage source for cattle. Read the label for products being applied to fields and consult with a crop advisor on which products to use and when they can be applied in relation to time of harvest.

Records should be kept to document feed that is given to each pen of cattle. If violative residues are found in cattle, these records will allow the producer to trace the residue back to a specific source.

When feed is purchased, invoices should include date, amount, lot or batch number, and signatures of deliverer and receiver. Also maintain records of any feed sold from the facility for consumption by cattle or other livestock.

Maintain all feeding records for a minimum of two years.

Quality control

To ensure cattle are being provided with the best possible diet, only buy feed from reputable sources. Also inspect delivery trucks for contaminants such as mold, feces, and other organic materials that would cause the feed to be unpalatable or dangerous for cattle to eat.

Collect samples of all feed delivered to the operation. This allows the producer to know the nutritional value of the feed as well as moisture content, which may affect requirements for storage. To collect samples, take 5–10 different grab samples within each load of feed.

Once collected, samples should be tested for the following quality control measures: moisture, protein, and any mycotoxins or other contaminants suspected to be present.

When purchasing from a feed company that conducts quality tests, request test results and keep them on hand for a minimum of two years.

Proper storage

Store feed away from chemicals, petroleum products, or any hazardous substance that may contaminate the feed, making it dangerous for cattle to consume.

To reduce mold contamination, feed out ensiled and fermented feedstuffs in a timely manner and keep them covered when not being fed.

Before ordering feed, ensure that adequate space exists for storing the product. Keep in mind how quickly it will be fed out, so that it does not sit for an extended period of time, allowing contamination to occur. This is especially important if cattle are not being fed year-round.

Feed contaminants

Molds can produce mycotoxins, which can cause adverse health effects in cattle. However, moldy hay does not necessarily indicate the presence of mycotoxins. Test any hay or feed if there is a reason to suspect that mycotoxins may be present. Contaminated hay should be discarded and destroyed. If contaminated hay is fed to cattle, it can reduce feed consumption, decrease overall performance, and cause other adverse health effects. Feeding contaminated hay negatively affects animal health.

Beef measles is caused by the larvae of tapeworms. Cattle can contract tapeworm larvae from human feces. Tapeworm larvae do not survive dry conditions very well; however, they do survive in human feces or moist pastures for 60 to 70 days at 75°F and for 6 months at 40°F. Once cattle consume these eggs, they can hatch in the small intestine of the animal and circulate throughout the animal's body. The larva then matures to cyst stage, which can be easily identified as the measles seen in the muscle tissue. An infected carcass can contain thousands of these measles. Severely infected carcasses are condemned, while carcasses with many fewer measles can be processed by freezing for 15 days or by cooking

before consumption. If humans eat undercooked or unfrozen beef with cysts they can become infected with the tapeworm. To prevent the transmission of human tapeworms to cattle, adequate access to restroom facilities and hand sanitization should be provided to all employees working on feedlots and in areas where crops are being grown for cattle.

Pesticides sprayed on feedstuffs can poison livestock and, in extreme cases, result in death. Keep records of when fields are sprayed and withdrawal times for pesticide and herbicide products used. Keep in mind pastures that will be grazed or crop fields that will be grazed after harvest.

Rodents can be a major problem when feed is stored in open-sided bunkers. Routinely monitor feed for rodent feces or deceased rodents and discard any contaminated feed. Cattle will go off feed if there are foreign objects in their feed bunk.

Prevent fecal contamination of feed from equipment. If possible, have two tractor buckets, one for feeding and one for cleaning pens. If this is not possible, make sure to thoroughly clean the bucket between uses.

Ruminant ban

On August 4, 1997, the Food and Drug Administration (FDA) adopted the "Animal Proteins Prohibited from Ruminant Feed" regulation to prevent transmission of bovine spongiform encephalopathy (BSE) in the United States through feed, minimizing any risk to animals and humans.

This regulation prohibits the use of protein derived from mammals in ruminant animal feed, with certain exceptions, including: pure porcine or pure equine protein, gelatin, milk products, blood and blood by-products, and inspected meat products that have been cooked and offered for human consumption, then further heat-processed for use as animal feed.

If an operator is feeding any of the above feedstuffs, copies of all purchase invoices and copies of labeling for feeds containing animal proteins must be maintained for a minimum of one year and provided for inspection by the FDA.

Veterinary Feed Directive (VFD) Statement

- A VFD is a statement written by a licensed veterinarian to authorize the administration of a drug or combination of drugs listed by the FDA, in feed that will be consumed by cattle. Cattle producers that may require a VFD need to first establish a Veterinary Client Patient Relationship (VCPR) with a licensed veterinarian.
- The written statement allows the livestock producer to obtain the needed drugs and administer them through the feed of the specific cattle listed, for the amount of time stated, for the treatment of a specific ailment. Producers are required to maintain records of all VFDs for a minimum of two years.
- Drugs regulated by the VFD are antimicrobials used in livestock feed and minerals that are considered “medically important to humans.” This does not include ionophores, drugs used for reproductive control, or drugs used for control of parasites and insects.
- Drugs listed on the VFD are to be used only for cases in which they will aid in prevention, treatment, and/or control of a specific bacterial disease. In the case of prevention, a VFD may be approved in cases where a known disease risk may occur if an antimicrobial is not administered. When animals are exhibiting symptoms of a disease, the needed antimicrobials may be administered under the VFD as a treatment. In the case of disease control, antimicrobials listed on the VFD may be administered to mitigate the spread of a disease when a percentage of cattle in the group have exhibited symptoms and received individual treatment.

Further reading:

- Eirich, Rob. “Veterinary Feed Directive webinar.” *Nebraska Extension Beef Quality Assurance Program*. August 2016. <http://bqa.unl.edu/veterinary-feed-directive>.
- Maas, John. “Beef Measles.” UCD Vet Views, *California Cattleman*, University of California Davis Veterinary Medicine. December 1998. http://ucanr.edu/sites/UCCE_LR/files/151976.pdf.

The Idaho Beef Quality Assurance Program is a partnership between University of Idaho Extension and Idaho Beef Council.

The BQA Mission

To maximize consumer confidence and acceptance of beef by focusing the producer’s attention to daily production practices that influence the safety, wholesomeness and quality of beef and beef products.

BQA Certification

Certification requirements can be achieved by participating in a training session and completing the BQA quiz and personal contract. Certification is valid for three years. Learn more about BQA certification in Idaho, here: <http://extension.uidaho.edu/bqa/certification/>.

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