

Feedlot 2011: Highlights from NAHMS Feedlot '99 Study

Beef producer organizations and allied industry groups have asked the USDA's National Animal Health Monitoring System (NAHMS) to update information collected in 1999 to characterize cattle health and management in feedlots. Data being gathered in the Feedlot 2011 study will enable NAHMS to provide updates.

In the 1999 study, NAHMS responded to stakeholder requests to: (1) help evaluate progress in implementation of beef quality assurance practices, (2) characterize antibiotic usage in feedlots, and (3) understand feedlot operators' priorities for pre-arrival processing. The following highlights from the Feedlot '99 study provide information that addresses these three stakeholder requests.

Beef Quality Assurance practices

The beef industry devoted substantial efforts to understand the impacts of management practices throughout the production chain on beef quality. Education programs were developed to enable producers to implement the best strategies for improving beef quality. Information was needed to determine the degree to which these educational efforts had been successful.

- More than 90 percent of feedlots considered most of the listed practices that could affect beef quality to be very important. Such practices included locations and routes for injections, antibiotic selection, and residue avoidance activities.
- Many larger feedlots (8,000-head capacity or more) had formal training programs, including written guidelines regarding key management practices that affect beef quality.



These data indicate that the beef industry did a good job in communicating the impacts of management practices on beef quality and that feedlot operators adopted strategies to minimize quality defects when possible.

Antimicrobial usage in feedlots

Livestock agriculture was, and still is, being encouraged to use antibiotics judiciously to avoid selection for resistant organisms that might result in adverse effects on animal or human health. Data were needed to characterize how antibiotics were used and how use decisions were made in order to assess the needs for further education programs and to inform those not familiar with the industry about antibiotic usage in feedlots.

- The two strongest influencers for the selection of injectable antimicrobial drugs were veterinarians and personal experience.
- Generally, more than 70 percent of feedlots had a formal training program, with or without written guidelines, for topics related to antimicrobial drug use. Training included topics such as disease diagnosis, antimicrobial selection, label use of antimicrobials, and residue avoidance.

- Although more than 40 percent of feedlots used metaphylaxis (mass treatment of a group of animals with antimicrobials) for some cattle, only 10 percent of cattle were treated metaphylactically.
- More than 80 percent of feedlots used antimicrobials in the feed for some animals. Use of antimicrobials was dependent upon a variety of factors, such as arrival weight.

These data indicate that many feedlot operators valued the help of veterinarians in making antibiotic use decisions. Furthermore, most feedlots trained their employees in appropriate use practices for antibiotics. Finally, when antibiotics were used in feedlots, many factors were considered in determining use practices.

Pre-arrival processing priorities

The health of cattle while in feedlots is set up long before they arrive at the feedlot. Management of animals in the earlier phases of production can have substantial impacts on the resistance of cattle to infectious diseases. Data were needed to identify feedlot operators' highest priorities for pre-arrival processing so that their suppliers could focus efforts where they would be most beneficial.

- Most feedlot operators (66 percent) indicated that administering pre-arrival respiratory vaccination to cattle at least 2 weeks prior to weaning was extremely or very effective in reducing sickness and death loss at the feedlot. Fewer feedlot operators (51 percent) perceived similar levels of effectiveness when the vaccine was administered at weaning.
- Two-thirds of feedlot operators believed that weaning calves at least 4 weeks prior to shipping was extremely or very effective in reducing adverse health outcomes.
- Nearly two-thirds of operators felt that castrating and dehorning calves at least 4 weeks prior to shipping and introduction to the feed bunk were extremely or very effective in reducing adverse health outcomes.

These data helped the feedlot operators communicate to suppliers the highest priority areas of pre-arrival processing. With this knowledge, the suppliers should be able to help ensure the health of the animals in the feeding phase and the feedlot operators should be able to source the animals that they believe will perform best. Ideally, this increased communication provides rewards to both the suppliers and the feeders.

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