

# Research Summaries 2

## Feedlot Beef Cattle Health and Well-being Recommendations

S.P. Terrell; D.U. Thomson, MS, DVM, PhD; B.W. Wileman, DVM; M.D. Apley, DVM, PhD  
College of Veterinary Medicine, Kansas State University, Manhattan, KS 66506

### Introduction

Animal health recommendations are given daily to feedyard managers relating to all areas of cattle management, from vaccination and metaphylaxis to pregnant heifer management and bovine viral diarrhoea virus (BVDV) PI testing. Research and reports on the costs and benefits of these various options are conducted on a somewhat routine basis. However, little data is available about what practices are being advised or implemented in the majority of feedlot settings. The objective of this survey was to observe which feedlot practices are being recommended by consulting veterinarians for the health and well-being of feedlot cattle.

### Materials and Methods

Veterinary consultants were selected for this study through personal knowledge of their geographic consulting areas and reputation within professional veterinary organizations. Twenty-three feedyard consultants were first contacted by phone to inform them of the survey and to request their participation in the study. If interested, participants were then provided a link to the survey via both e-mail and written letter. Data were collected using a web-based survey system through Kansas State University (Axio Online, K State Survey Services, Manhattan, KS). All 23 veterinary consultants agreed to participate in the survey, and all 23 completed the survey. The survey consisted of 58 questions covering general information (n=8), employee training (n=6); processing and receiving of cattle (n=13); castration and pregnancy management (n=6); bovine viral diarrhoea (BVD) testing (n=2); re-vaccination (n=5); cohort size and facilities requirements (n=2); animal health labor requirements (n=8); and feedlot morbidity and mortality (n=8). Data collected via the web-based survey system were downloaded into Microsoft Excel (Microsoft, Redmond, WA) for data summarization and statistical analysis. Answers given as ranges, i.e. bunk

space 12-14 inches (30.5-35.5 cm), were calculated as an average for summary statistics and analysis.

### Results

Consulting veterinarians (CV; n=23) representing 11,295,000 head of cattle on feed in the United States and Canada participated in the survey study. The CV indicated that they visit feedyards 1.7 times per month. All CV train employees on cattle handling and pen riding, while only 13% of CV speak Spanish. All CV recommend infectious bovine rhinotracheitis (IBR) and BVD vaccination for high-risk (HR) calves at processing. Other vaccines were not recommended as frequently by CV. Autogenous bacterins were recommended by 39.1% of CV for HR cattle. Metaphylaxis and feed-grade antibiotics were recommended by 95% and 52% of CV, respectively, for HR calves. Banding was more frequently recommended than surgical castration as calf body weight increased. The CV recommended starting HR calves in smaller pens (103 head/pen) and allowing 13 inches (33 cm)/head of bunk space. The CV indicated feedlots need to employ one feedlot doctor per 7,083 head of HR calves and one pen rider per 2,739 head of HR calves. Ancillary therapy for treating respiratory disease was recommended by 47.8% of CV. Vitamin C was recommended (30.4%) twice as often as any other ancillary therapy. Cattle health risk on arrival, weather patterns, and labor availability were most important factors in predicting feedlot morbidity, while metaphylactic antibiotic, therapy antibiotic, and brand of vaccine were least important.

### Significance

This survey is the first to report advised standards of practice for animal health and well-being by feedlot consulting veterinarians. This survey has provided valuable insight into feeder cattle health recommendations by CV and points to needed research areas.