

Results

The veterinarians visited feedyards in their practice an average of 1.7 times monthly. Ninety-six percent of veterinarians aided in training pen riders. All were familiar with the Beef Quality Assurance (BQA) Feedlot Assessment Tool, and 95% used BQA concepts in employee training. Participants recommended 1 pen rider/3,464 high-risk calves, and 1/6,405 low-risk calves. Banding was the most commonly recommended method of castration in cattle over 500 lb (227 kg). Ancillary therapy for BRD was recommended by half the participants. Cattle health risk was considered the most important factor for predicting morbidity.

Significance

The findings of this research and the comparison this report to those in the past increase knowledge of common recommendations made by feedlot consulting veterinarians and have an impact on the feedlot and veterinary industries. The changes reported here may be the most important outcomes of this research, as they provide insight into how veterinarians' recommendations evolve as the industry changes and as new research is being produced and used. This information will be valuable both today and in the future, when other surveys contribute to make an even larger base of knowledge.

Effect of vaginal temperature on behavior patterns of *Mannheimia haemolytica* challenged beef heifer calves

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Introduction

Behavior is one criteria that can be used to identify sick animals, but the relationship between behavior and body temperature changes are not well-defined. The objective of this project was to evaluate associations between vaginal temperature and behavior in beef heifers challenged with *Mannheimia haemolytica*.

Materials and Methods

Ten heifer calves were endoscopically challenged with *M. haemolytica*. Intravaginal data loggers recorded hourly temperatures, and rectal temperature was recorded 3 times over 3 days. Remote location monitoring determined distance traveled, time spent near locations within the pen (grain, hay, water, and shed), and percent time lying. Vaginal temperatures were evaluated in quartiles and potential associations with behavioral variables were tested.

Results

Vaginal temperature was significantly associated with time spent at the grain, shed, water, distance traveled, and

time lying. Calves in the greatest vaginal temperature quartile (104.4 to 107.6°F; 40.2 to 42.0°C) spent a greater amount of time at the water compared to middle quartiles (101.8 to 104.2°F; 38.8 to 40.1°C). Calves in the greatest vaginal temperature quartile also spent less time at the grain and traveled less distance compared to other quartiles. Laying time decreased with higher vaginal temperature quartiles, compared to the least quartile (93.9 to 101.7°F; 34.4 to 38.7°C). A positive correlation ($R^2=0.71$) between vaginal temperature and rectal temperature was identified.

Significance

As vaginal temperature increased, calves were less likely to be near the grain and more likely to be standing or near the water or shed. This work illustrated associations between behavior and vaginal temperature which may be useful to improve overall case definition of identifying diseased calves.