

Evaluating Health, Performance and Behavior in Beef Stocker Calves Administered Two Preventive Health Protocols

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Introduction

Preventive health protocols in beef stocker calves often contain a variety of component combinations including biologics, antimicrobials, and parasiticides. These protocols are employed to decrease detrimental health events, but calf performance and behavior may also be impacted by the effect of product administration methods. Our objective was to compare calf behavior, health, and performance between a minimally invasive protocol (MIN) and a more invasive protocol (MOR) during a backgrounding phase.

Materials and Methods

We studied two replicates (n=305, n=308) of cross-bred beef calves (avg wt = 458.8 lb [208.5 kg]) randomly assigned to MIN or MOR protocols. The MIN group received only one injection (clostridial vaccine) combined with an intranasal vaccine (4-way viral), topical parasiticide, and oral parasiticide. The MOR calves received three injections (4-way viral, clostridial, parasiticide). Calves received all products including boosters in accor-

dance with product labels. Calf behavior was monitored with accelerometers and pedometers during the 42 day trials, and common health and performance outcomes were also monitored.

Results

Calf behavior (number of steps and percent time lying) did not differ between MIN and MOR when evaluating non-morbid calves. Mortality, chronic, and first treatment success risks also did not differ. However, MIN calves had higher morbidity compared to MOR calves, and average daily gain over the study period was greater for MOR calves.

Significance

We did not find behavioral differences comparing protocols with different product administration methods, but some differences in health and performance were noted. Because we studied complete health protocols, the particular product component(s) that contributed to our results is unknown.