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Beef Day 2022

Effects of on-arrival application of a modified-live respiratory and clostridia vaccination on health, growth performance, and antibody titers of newly-weaned calves

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Objective

The objective of this research was to evaluate health, growth performance, and antibody titers to IBR, BVD 1 and 2, PI₃, and BRSV in newly weaned calves administered a respiratory and clostridia vaccine upon arrival or no clostridia or respiratory vaccine administered upon arrival.

Study Description

Single-sourced, newly weaned steers (n=70; initial body weight (BW)=560±12.9lb) were allotted to 10 pens (n=5 pens/treatment with 7 steers/pen). Steers were blocked by BW in a randomized complete block design of VAC [vaccinated for IBR, BVD 1 and 2, PI₃, and BRSV (Bovi-Shield Gold 5, Zoetis, Parsippany, NJ) and clostridial (Ultrabac 7/Somubac, Zoetis) upon arrival] or NOVAC (not vaccinated for IBR, BVD 1 and 2, PI₃, and BRSV or clostridial species upon arrival). Steers were individually weighed on d 0 (arrival), 1, 21, and 42 for growth performance measures. Whole blood samples (10 mL) were collected (n=3 steers/pen closest to the pen mean BW) on d 1, 21, and 42 via jugular venipuncture for metabolite and antibody titer responses.

Take Home Points

Dry matter intake tended ($p < 0.07$) to increase as a percentage of BW for NOVAC compared to VAC. Collectively, growth performance measures were unaffected by vaccination timing. Blood metabolite analysis for antibody titer responses is ongoing.

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