

Results and Discussion

Cattle classified as having clinical respiratory disease (sick) within the first 35 days of arrival in the feed yard were 44%. Eight animals died prior to thermal profiling and were not included in the analysis. Data was adjusted for pen effect.

Animals never identified as sick gained significantly ($P < 0.001$) better at 3.16 ± 0.10 SEM lb./day than those identified as sick only once (2.33 ± 0.11 SEM lb./day) or as sick more than one time (1.67 ± 0.16 SEM lb./day). Individual animal feed efficiency could not be evaluated, as the cattle were fed on a pen basis.

Thermal profiles of cattle not identified as sick were significantly ($P < 0.01$) higher at 2.06 ± 0.07 SEM than profiles of animals identified as being sick once (1.78 ± 0.09 SEM) or more than once (1.71 ± 0.11). Thermal profiles of the two classifications of sick animals did not differ significantly from each other ($P > 0.05$).

Data suggests respiratory disease alters metabolic activity. This was evidenced by reduced weight gain resulting in a lowered radiant energy loss at the body surface. This was detectable using an infrared camera.

Feeding and Watering Behaviors and Bovine Respiratory Disease in Newly Received Feedlot Calves

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Abstract

The study objective was to investigate the association between feeding and watering behaviors and bovine respiratory disease (BRD). Feeding and watering behaviors of 170 newly received calves during the first 57 days on feed (DOF) were observed at a commercial feed yard using an electronic monitoring system. Calves pulled and classified as sick (for BRD) during the 57-d observation period had greater ($P \leq 0.05$) frequency and duration of watering at 4 - 5 DOF than non-pulled or non-sick calves. The pulled, sick calves also had lower ($P \leq 0.05$) frequency and duration of both feeding and

watering at 11 - 27 DOF, but had a greater ($P \leq 0.05$) frequency of feeding at 28 - 57 DOF than did non-pulled or non-sick calves. Similarly, calves with a higher percentage of pneumonic lesions at slaughter had lower ($P \leq 0.05$) frequency and duration of feeding at 11 - 27 DOF, but had a higher ($P \leq 0.05$) frequency and duration of feeding at 28 - 57 DOF. Feeding and watering behaviors were associated with clinical BRD, on average. Use of watering behavior at 4 - 5 day DOF might be a useful prognostic indicator; however, there was not an obvious predictive association between clinical BRD in individual calves and feeding and watering behaviors.