

Effect of processing stress on feedlot cattle sickness.

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Processing time and order were measured to determine their effect on sickness rate in feedlot cattle. Crossbred steers (n=1,551) from a single source were shipped from western Nebraska to southeast Colorado. Cattle from 3 ranch units were received in shipments occurring over 3 d. Steers were housed overnight in feedlot receiving pens before being processed and allocated to their feedlot pens. In some cases, initial processing did not occur until the second day after arrival due to time limitations. All animals to be processed in a single day were removed from the receiving pen and held in alleys until processing was completed. Processing included radio frequency identification tag, visual tags, oral wormer, injectable wormer, growth promotant, 30 ml of blood collected and carcass ultrasound measurements of loin eye muscle area, backfat and percent intramuscular fat. Processing time ranged from 50 to 577 s with an average time of 112 s. An average of 320 animals were processed daily. Post processing, calves were placed in feedlot pens where they remained unless identified as sick. Individual animals were considered sick if they exhibited clinical signs typical of bovine respiratory disease such as lethargy, depression, coughing, and nasal discharge, as determined by feedlot personnel. Sick animals were treated according to defined protocols and housed separately with other sick animals until recovered. The outcome, sick versus not sick, was analyzed with the GENMOD procedure of SAS on the binomial scale (yes/no). The model included the fixed effects of feedlot pen-unit class, time in the processing chute, and processing order. Fixed effects that influenced outcome included feedlot pen by unit-class (P<0.05), processing time in seconds (P=0.06) and processing order within day (P=0.06). As the processing order each day or processing time increased the probability of becoming sick increased by 0.15 ±0.3 and 0.24 ±0.13 percent, respectively. These results indicate animals that spent more time awaiting processing or being processed had a higher likelihood of becoming sick.

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