

BRD and Fed Cattle Performance  
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Beef cattle producers face numerous challenges when managing their business and attempting to earn a profit through their cattle. The bovine respiratory disease complex, (BRD) is one of the challenges a cattle producer faces. BRD is often cited as the biggest health obstacle for the cattle industry. The economic cost associated with BRD has been reported to be \$750 million annually.

The incidence of clinical BRD reported by USDA in feedlots is 14.4 %. Lung lesions found in cattle at slaughter are extremely common and range from 29 to 77%. The difference between cattle identified with BRD in the feedlot and cattle with lung lesions at slaughter indicates the high level of subclinical disease in cattle. The overall assessment of the incidence of BRD in cattle is probably more accurate by evaluating the incidence of lung lesion found in cattle at slaughter rather than the percentage of cattle that show clinical signs and are subsequently treated.

A recent study (Schneider et. al. 2009) reported the effects of BRD in fed cattle. This study evaluated the data from 5,976 cattle fed in the Tri County Steer Carcass Futurity between the years of 2003 and 2006. The cattle originated from herds across the Midwest and Southeast United States. In this study 8.17% of the cattle were treated for BRD while on feed, 53% were treated once, 34% were treated twice, and 13% were treated three or more times. The lungs of 1,665 animals were examined for lesions at slaughter, 62% had lesions. The estimated overall incidence of BRD in this study, which included the treated animals and animals with lung lesions at slaughter, was 65%. The mortality rate was 1.43% with 49% of the deaths attributed to BRD, 40% of the deaths was due to reasons unrelated to BRD, and 11% were related to unknown causes.

Average daily gain (ADG), hot carcass weight (HCW), and marbling score were found to be significantly effected by the incidence of BRD in the feedlot. The difference in ADG during the acclimation period, the first 4 to 6 weeks on feed, for untreated vs. treated was significantly different by 0.8 lbs per day. Cattle were able to compensate for this initial difference, ADG through the entire feeding period was not statistically different between treated (2.95 lbs) and untreated (3.17 lbs) cattle however, economically there was a difference. Treated cattle also had significantly lighter HCW by 18 pounds and decreased marbling scores of .13 points.

An economic analysis was performed to evaluate the decline in carcass values for cattle treated while on feed verses cattle that were not treated in the yard. Cattle treated one two or three or more times had decreasing carcass values of \$23.23, \$30.15 and \$54.01 dollars per head compared to cattle that received no treatment.

Animal health does have an effect on the performance and value of fed cattle. This study is one of numerous studies that have evaluated the effects of health on fed cattle performance. As described sick/treated cattle do no perform as well as untreated animals, and treated animals are of decreased value after processing. This decreased value needs to be recognized by all cattle producers with management changes implemented as needed to minimize the effects of health on cattle performance.

## References

1. Schneieder M. J., Tait R. G., Busby W. D., Reecy J. M. , An Evaluation of bovine respiratory disease complex in feedlot cattle: Impact on performance and carcass traits using treatment records and lung lesions score. 2009 J.AnimSci.87:1821-1827