

Effect of Different Castration Methods on the Subsequent Performance of Bull Calves

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Introduction

Fifty mixed-breed, preconditioned bulls (791 +/- 77 lb; 359.5 +/- 35.0 kg) were utilized to examine the effects of different castration methods on animal performance.

Materials and Methods

Cattle were blocked by weight and randomly assigned to one of five treatments (10 blk/trt): non-castrate control (CNT), castrated by banding (BND), castrated by banding with lidocaine local anesthesia (BNDL), castrated surgically (SURG) and castrated surgically with lidocaine local anesthesia (SURGL). Cattle were fed individually for 28 days post-castration. Individual animal feed intake was recorded daily. Animals were weighed on days 0, 7, 14, 21 and 28.

Results

There was a castration method by week interaction for dry matter intake (DMI). Castrated cattle

tended to have lower DMI relative to CNT cattle throughout the study ($P = 0.12$). BND/BNDL cattle had higher DMI than SURG/SURGL cattle during the first week post-castration ($P = 0.01$). However SURG/SURGL cattle had higher DMI relative to BND/BNDL cattle the last week of the study ($P = 0.01$). Castrated cattle had lower average daily gain (ADG; $P < 0.01$) and gain efficiency (GE; $P < 0.01$) relative to the CNT cattle. SURG/SURGL cattle had better ADG ($P < 0.01$) and GE ($P < 0.01$) than BND/BNDL cattle for the 28 day feeding period ($P < 0.01$). Lidocaine treatment had no effect on DMI, ADG or GE of cattle throughout the study.

Significance

Castration of bulls decreased performance of cattle, but lidocaine administration at time of castration did not alleviate these effects. Cattle castrated surgically had markedly improved performance compared to cattle castrated by banding.