

Comparison of Three Different Dehorning Techniques on Pain, Behavior, Wound Healing, and Performance in Feeder Cattle

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Introduction

Removing the horns of cattle is a common practice in most modern day cattle feeding operations. The procedure is thought to decrease injury inflicted on penmates by cattle with horns. Currently, three methods of this procedure are commonly used: 1) tipping, or partial horn removal, 2) mechanical removal, and 3) banding. No research exists that directly compares the three methods and monitors effects on pain, behavior, wound healing, and performance.

Materials and Methods

Cross-bred, horned steers and heifers ($n = 40$; BW = 693 ± 10.5 lb; 314 ± 4.8 kg) were used to determine the effects of dehorning methods on pain, cattle behavior, wound healing, and performance. Cattle were blocked by weight and randomly assigned to one of four treatments: 1) control (CNT); 2) banded using high tension elastic rubber (BAND); 3) mechanically removed (MECH); or 4) tipped (TIP). Cattle were individually weighed on day 0, 7, 14, 21, and 28. Vocalization and behavior were recorded during the dehorning process. Wound healing scores, attitude, gait and posture, ap-

petite, and lying were recorded daily for 28 days after processing. Data were analyzed using the MIXED and GLIMMIX procedures of SAS (Cary, NC).

Results

Vocalization scores were highest for MECH cattle and BAND cattle vocalized more than TIP and CNT ($P < 0.05$). Attitude ($P = 0.06$), gait and posture ($P = 0.06$), and lying scores ($P < 0.05$) were higher for BAND cattle in the days following procedures compared to MECH, TIP, and CNT cattle. BAND tended ($P < 0.13$) to have higher appetite scores (poorer appetite) than the other methods. Wound healing scores (horn bud and bleeding) were higher for BAND cattle than MECH, TIP, and CNT cattle ($P < 0.05$). There were no performance differences between cattle from different treatment groups.

Significance

These data indicate that MECH is a painful procedure for cattle at the time of the procedure. Banding to remove horns from cattle is not recommended based on the discomfort observed subsequent to the procedure in this study.