

# Southwest Research-Extension Center

## A COMPARISON OF SURGICAL VS BANDING CASTRATION METHODS IN NONSTRESSED STOCKERS

by

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### SUMMARY

Ninety-six nonstressed stocker bulls (685 lbs) were allotted randomly to eight pens. Cattle in four pens were castrated by banding, and those in four other pens were castrated by a surgical technique. Cattle were fed a corn silage diet for 50 days. Cattle surgically castrated consumed more feed, but castration method had no effect on daily gain, feed efficiency, or animal health. In winter months with nonstressed bulls, the castration method used should be based on personal preference.

### INTRODUCTION

In recent years, castration by banding has been evaluated as an alternative to surgical castration as a means of managing bulls at the feedyard. Cattle often begin eating just a few hours after banded castration. This rapidly regained appetite often is interpreted to mean that banding is less stressful than surgical castration. Also, because there is no open wound or blood loss, banding may have merit during summer months to avoid fly problems. Research data comparing surgical vs banding castration methods have yielded mixed results, and peoples' attitudes vary as well. This experiment was conducted to evaluate surgical vs banding castration methods in nonstressed stockers, to see if any difference occurred in growth performance.

### PROCEDURES

One hundred thirty bulls were purchased from three sale barns in south central Missouri, October 17-20 and October 24-27. Bulls were transported to SWREC the week when they were

purchased. Cattle were mainly crossbreds of Angus, Hereford, and Charolais. They had no Brahman, dairy, or Corriente influence. Bulls were processed on arrival, payweight was 580 lbs, and they were fed a corn silage-based diet. On December 13, the heaviest 96 bulls were sorted out of the group and used in a 50-day experiment. Therefore, bulls were nonstressed, and in terms of age, they were either stockers or short yearlings.

Experimental treatments were castration by banding or surgery. Banding was performed by using a mechanical device that stretched latex tubing (3/8 inch outside diameter) around the scrotum and just above the testicles. A small metal clamp was crimped to ensure that the tubing remained stretched around the scrotum. Surgical castration was performed using a surgical blade and an emasculator. All cattle were given a tetanus shot at the time of castration.

Cattle were allotted randomly to each treatment and then within treatment to six pens with eight head each. Cattle were placed in open lot pens with concrete flooring. Cattle had 70 sq ft of pen space, and 27 inches of linear bunk. Pens were cleaned weekly.

During the experiment, cattle were fed a diet composed of 82% corn silage, 16% sunflower meal, and 2% mineral premix (DM basis). It was balanced to contain 11% crude protein, and it contained Bovatec at 29 grams per ton. Cattle were fed ad lib, once daily in the morning. Initial and final weights were based on two consecutive daily weights.

### RESULTS AND DISCUSSION

Initial and final weights were about 10 lbs heavier for surgically castrated cattle than banded cattle. Cattle surgically castrated consumed more

feed than cattle castrated by banding ( $P = .04$ ), but no differences occurred in daily gain or feed efficiency. These cattle had no health problems. This was expected, because they had arrived 6 or 7 weeks before the experiment began and had been vaccinated for tetanus.

In the banded group, with the exception of two bulls, all of the scrotal sacs containing testicles had atrophied and/or fallen off between 14 and 28 days after banding. On day 30, two cattle were put through the squeeze chute for

visual examination, because the scrotal sac plus testicles had enlarged to about twice the original size. We removed the enlarged scrotal sac, just below the latex band, with a surgical blade. Bleeding was minimal, and cattle were put back in their pen with no apparent problems.

Based on these data, we conclude that during winter months, castration method has no effects on nonstressed stockers. Therefore, the method used should depend on personal preference.

**Table 1. Effect of banding vs castration on growth performance of non-stressed stockers fed a silage based diet.**

Item	Time of castration		SE <sup>a</sup>	P value <sup>b</sup>
	Arrival	21 days later		
# of pens	6	6		
# of cattle	48	48		
Starting weight, lb	681	690		
Final weight, lb	764	778		
Feed intake, lb	17.59	18.29	.21	.04
Daily gain, lb	1.71	1.76	.11	.70
Feed/gain	10.56	10.52	.70	.97

<sup>a</sup> Standard error.  
<sup>b</sup> Probability that treatment effects are similar.