

Economic Benefit of Castration in South Texas

Levi A. Russell

Assistant Professor and Extension Economist
Texas A&M AgriLife Extension



Prices in South Texas are significantly higher for steers than for bull calves, according to a study of 1,847 market calves in 2015. Findings indicate that the benefit of castration is relatively low for calves lighter than 500 pounds and relatively high for calves sold at more than 500 pounds.

Extension faculty collected data in sale barns in Bee, Karnes, Jim Wells, Live Oak, and Starr Counties from April 2014 to August 2015. The study quantified the revenue gains associated with castration and growth implanting.

Figure 1 shows the relationships between price per pound and weight for steers, bulls, and heifers. Heifer prices were always below steer prices, averaging a \$0.15 per pound discount. From 350 to 500 pounds, bull and steer prices differed by an average of \$0.06 per pound, or \$25 per head. For male calves weighing less than 500 pounds, other factors such as the presence of horns and breed type are likely more important in determining the prices.

Above 500 pounds, bull prices begin to fall even more relative to steer prices. This effect is so dramatic that the predicted price for bulls falls below the predicted heifer price at 700 and 750 pounds. The financial benefit of castration and implantation (the per-head price difference between steers and bulls) averages \$81 for calves between 550 and 750 pounds; \$30 for 550-pound calves; and \$154 for 750-pound calves.

Implanting is included because if a bull calf is castrated but not implanted, it will not reach as heavy a weight at weaning as it would if it had remained intact.

The reason for the premium for steer calves over bull calves is that feedlots usually castrate all male calves. If they do so at higher weights, the risk of death loss increases because of infection and blood loss. The steer premium represents part of the feedlot's reduced risk of death loss.

These findings suggest two possible marketing strategies: avoidance or management.

Producers can either 1) avoid the discount associated with bull calves by marketing their calves below 500 pounds, or 2) castrate at lighter weights (to reduce death loss before weaning) and receive a premium relative to bull calves at higher market weights.

In many cases, the risk of death loss associated with castration of lighter calves and the management cost of castration and implanting is likely to be much lower than the increased revenue potential at heavier market weights. In these cases, the benefits of castration and implanting outweigh the costs. The decision to castrate depends to some degree on the typical weaning weight of the herd.

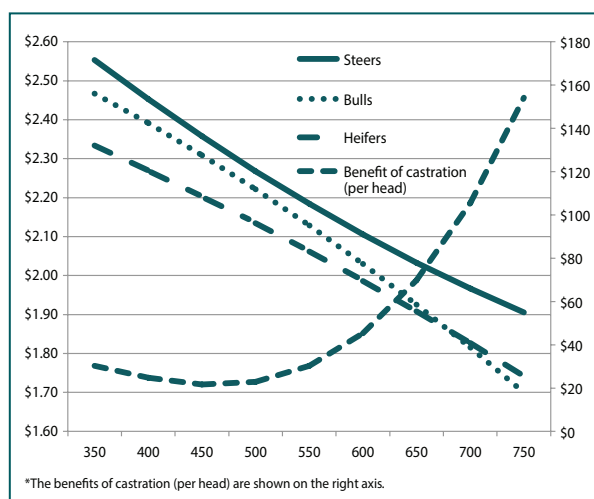


Figure 1. Price slides for calves in South Texas, 2014-15*.

Acknowledgments

Contributors to this study were County Extension Agents Jared Alewine, Matt Bochat, Michael Donalson, Frank Escobedo, Bobby McCool, Rogelio Mercado, Omar Montemayor, Brian Yanta, and Makenzie Wyatt; Extension Assistant Justin Sáenz; Extension Program Specialist Mac Young; Extension Livestock Specialist Joe Paschal; and Extension Economist David Anderson are thanked for their efforts associated with this project.

Texas A&M AgriLife Extension Service
AgriLifeExtension.tamu.edu

More Extension publications can be found at *AgriLifeBookstore.org*

Texas A&M AgriLife does not discriminate on the basis of race, color, religion, sex, national origin, disability, age, genetic information, veteran status, sexual orientation or gender identity and provides equal access in its programs, activities, education and employment.

The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.

New