Turning Bull Calves into Steers

There are many different strategies when it comes to turning bull calves into steers. Some producers band at birth when they tag, others wait until branding to knife cut, or vice versa. While there is no right or wrong method, producers have figured out what works best for them in terms of equipment, labor, and time. However, there are some theories about when castration takes place and how that may be a benefit when it comes to calf growth. Regardless of the method used to turn bull calves into steers it should be done as soon as possible. The younger the calf at the time of castration the less stressful the process is. While castrating young is recommended, some producers think that leaving bull calves intact longer accelerates the growth rate due to the calves’ natural growth hormones. However, research has shown there is no difference in weight of calves castrated at birth and those left intact after weaning. Furthermore, castrating calves which are heavier than 400 pounds can significantly set those calves back in terms of growth and increase the likelihood that they will become sick.

Due to there being no benefit to leaving calves intact longer and increased risk for illness, castration should not wait. If a producer is strictly a cow-calf producer with no intentions to retain any bull calves to become sires, castration can easily be completed during tagging with various products. The most common method is the use of an elastrator bander or newer products such as a high-tension banding tool. This will ensure that the calf experiences as little stress as possible and the testicles are removed before they become too large. If banding cannot take place during tagging, it is still recommended that bull calves are castrated at branding time either using a bander or knife cutting.

There has been some interest in determining how and if castration method affects calf performance. In a study by Brazle (1992), trials were conducted to compare the effects of castration age and method on post weaning gain and health. Results of that study suggest that castrating bulls during weaning or as yearlings has a negative impact on average daily gain compared to steers which had been castrated earlier in life. Brazle suggested that the difference in gain between the two groups was likely the result of increased stress experienced by the castrated bulls (1992). The castration regardless of method paired with the sensitivity of bulls to stress compared to steers is thought to be the cause of depressed gain. Furthermore, the study results suggest that bulls castrated as yearlings received more medications than those castrated earlier in life. However Brazle (1992) did observe that surgically castrated calves that became sick on average showed signs of sickness 3 to 4 days after arrival, while those that were banded showed sickness 7 to 8 days after arrival. It was also cautioned that there is room for error while using the bander as bull calves that were improperly banded experienced significant decrease in gains and increased health problems (Brazle, 1992).

In a more recent study by Warnock and colleagues (2012), bull calves were castrated using various methods at weaning to determine the effect of method on feed intake, water intake, growth performance, residual feed intake, and inflammatory response. For purposes of comparison the study also included a group of steers castrated earlier in life, as well as a group of intact bulls. Results of that study suggest that the control group of steers castrated prior to weaning and intact bull calves performed better on feed compared to those which were castrated at weaning. Much like the Brazle study, castration method affected the timing of the inflammatory response, however overall there was no difference detected in terms of growth performance, daily feed intake, residual feed intake, or inflammatory response (Warnock et al., 2012).

In summary, producers should feel confident that castrating bull calves at weaning or after does not result in increased growth compared to early castrated steers suggested by research. To avoid depressed growth performance and an increased risk of sickness or death, producers should castrate as early as possible if there is no chance a calf will become a bull for breeding. In terms of castration method, there is not much evidence that castration method makes a difference in terms of overall sickness or growth performance. Therefore, producers should choose a method that fits their operation in terms of available equipment, labor, time, and their own skill.

For more information or resources for calving practices, please visit or call the Cheyenne County Extension Office at (785)332-3171.

References:

Please join us for the Fence Line Series!

There will be a ZOOM every Thursday evening in February where K-State specialists will speak for an hour about a topic that should be on your radar as a cattle producer. Any level of producer would benefit from the subject matter and will have the ability to ask questions specific to their operation. The Fence Line Series schedule is as follows:

February 4, 7:00 pm CT  
Cow Nutrition Programs for a Successful Breeding Season; Dr. Dale Blasi

February 11, 7:00 pm CT  
Managing Disease Around Calving; Dr. AJ Tarpoff

February 18, 7:00 pm CT  
Update on Estrus Synchronization Strategies and Options for Sexed Semen; Dr. Sandy Johnson

February 25, 7:00 pm CT  
Effective Pest Management—How the Creepies Affect the Crawlies; Dr. Cassandra Olds

To register please visit https://tinyurl.com/fencelineseries or scan the barcode below with your phone camera.

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