



Pointers to help producers sell heavier, healthier steers.

by Sara Gugelmeyer



Castration of bull calves is a practice that most producers perform every year without question. And yet, there is still a percentage of feeders sold intact at a discount because they haven't been castrated. Plus, even for those producers who do castrate, it's important to be sure to use the correct technique and perform the procedure at a time when it is best for the animal's welfare and ensures you will take home more money from the sale.

Why castrate?

A large feeder calf survey conducted by the Iowa Beef Center staff at Iowa State University examined the prices of more than 160,000 head sold during a six-month period. The results showed bulls brought \$6.20 less per hundredweight (cwt.) than steer calves. For a 500-lb. calf, that is a difference of \$31. For a producer looking to increase profit, that adds up to 31 reasons to castrate bull calves before selling them.

The earlier, the better

Once the decision has been made to castrate, when is the best time to do it? That is one topic where animal scientists and veterinarians say there is no question: the earlier, the better. Daryl Strohbahn, Iowa State University animal science professor, emphasizes the importance of castrating calves early in life. "The important thing to understand is the later you wait in life to castrate the greater the stress is going to be." And more stress is going to result in lost weight gain and other health problems.

These problems are especially true with a knife castration method says Dr. Robert Larson, Kansas State University (K-State) College of Veterinary Medicine professor. He explains cutting calves at a later age results in more bleeding and more stress on the calves. "It takes the calves longer to get back on full feed and resume normal activity," Larson says.

Some producers theorize the longer the calf is left intact the faster he will grow, which will result in more pounds to sell at weaning. However, Larson explains, that is not necessarily true. He says if the producer is trying to stick with a natural program and not use implants, there may be some growth advantages with leaving the bulls intact. But, he says if the producer is willing to use implants, "I would much prefer to castrate early and use an implant in that 2- to 3-month-old calf to get all the advantages of growth and none of the disadvantages of castrating at a later point in life."

Even with a natural program without the use of implants, Larson says a lot of the weight advantage from leaving the calves intact will be lost with the increased stress of cutting at a later age.

Can you cause problems by cutting or banding too early? Not really, say Larson and Strohbahn. Calves can be castrated as early as the first day of life; however, that is not usually the most efficient method for producers with more than a few calves.

The best time for most producers, Larson says, is between 1 to 3 months of age. Convenience is the primary reason for most producers, and

this time period is typically when spring calves are given their first round of vaccinations.

Strohbahn agrees that 1 to 3 months of age is ideal because the calves are young enough that stress is minimal. "The second wonderful part about doing it at that time is most people have their cattle out on grass so the complications from infections are just about zero," Strohbahn says.

Sometimes waiting is necessary

For commercial producers planning to sell all their male calves as steers, it makes sense to castrate all calves early, but seedstock producers planning to sell some bulls are likely going to have to wait to determine which to castrate.

Hereford cattleman Glenn Oleen of Oleen Cattle Co., Falun, Kan., says in the seedstock and commercial operation he and his brother operate, they do their castrating in groups. They cut all of their commercial calves and some of their purebred Hereford calves when they are young.

Oleen explains, "We will cut a bunch of our Hereford bull calves early if we're sure we don't want to keep them for a bull." Then at weaning the Oleens will make another cut and castrate another percentage of the bull calves. "That gets it down to a number that we think we can sell."

Once the producer has determined when the best time to castrate is, the last important decision is what method to use. For hundreds of years, cattlemen have used the "cutting" technique of

using a knife to surgically remove the testicles. In more recent years, however, a "banding" technique has been introduced which uses a rubber band or rubber tubing to stop the blood flow to the testicles, causing the calf to eventually slough the testicles and scrotum.

Which is better?

There is no clear-cut answer to give when producers ask whether cutting or banding is better, according to Larson. When it comes to helping a producer choose which method to use, Larson says, it has a lot to do with the individual's preferences, facilities and training.

"Both techniques require some skill, and I don't really consider one easier than the other," Larson explains. There are advantages and disadvantages to both.

A study conducted by a K-State graduate student on calves that weighed about 500 lb., Larson says, showed that banded calves did have better performance for the first few weeks after castration. At two weeks, the banded calves had less decrease in feed intake and better weight gain than the knife-cut calves. However, at three to four weeks, it flip-flopped and the knife-cut calves did better.

"By three to four weeks the knife-cut calves were pretty much healed and the banded calves were just at the point when they were sloughing their scrotums," Larson says. So depending on when you measure the calves' performance after castration, the advantage could go either way.

Know your skills

When it comes to what the producer should decide to do, Larson explains, it should be the method he is most technically skilled in. "I have seen improperly done banding castration techniques that end up causing decreased performance for the calf and animal welfare concerns, and I've seen knife cut calves that aren't done well that have the same kind of problems."

One way producers lower their risk of problems with the cutting method is to use a Newberry knife. It is a tool that is commonly used and allows one quick incision to be made which opens up both sides of the scrotum. Larson says the Newberry knife is easy to use and makes it more difficult for the person using it to injure himself.



Many use a scalpel or a sharp knife, and the main thing to remember, no matter the tool, is cleanliness. "You should use a bucket with disinfectant and clean whatever you are using to keep the surgery as clean as possible," Larson says.

Oleen says he cuts his young calves, but because of the increased bleeding and stress cutting causes on the older calves, he typically bands them. "For us, on the bigger calves, banding is probably faster than doing a real good job with a knife," Oleen explains. "And banding reduces the chances of bleeding and is probably less stressful on the calf that day than the surgical procedure."

Banding is a good way to castrate with the appropriate technique, according to Larson and Strohhahn. There are two different types of banding methods, an elastrator and a high-tension bander.

Young calves should be done with an elastrator, which is basically just a very small rubber band placed over the scrotum, above the testicles, which cuts off the blood flow. This can be used as early as one day of age although, Larson says, the elastrator method of banding has come under some criticism from an animal welfare perspective.

The high-tension bander is designed for larger calves and offers the same concept of stopping blood flow to the testicles, except it actually uses a piece of rubber tubing which is pulled tight and clamped.

No matter which type of banding you use, Strohhahn stresses the importance of making sure both testicles are below the band. "I've seen people that don't get both testicles pulled down and that doesn't result in complete castration," he says.

Strohhahn says that's why some people would rather cut. He says veterinarians have told him they prefer to cut because then they're 100% sure they've got both testicles. Therefore, Strohhahn says if using the banding method, you must be adept at getting it done properly.

One problem Strohhahn has encountered with banding larger, fleshier calves is the fat deposition in the scrotum can cause complications getting total castration accomplished. He explains, "As we get later in the animal's development, if they happen to have a little more fat on them, we will see quite a bit of fat deposition in the scrotum and inguinal canal."

That fat can make it hard to get total blood constriction and get



High tension bander



Elastrator

the desired result. For this reason, Strohhahn recommends cutting bulls once they begin to get large enough to deposit fat in this area.

One critical management concern when banding calves is to be sure the calves are given a tetanus vaccine.

Keep them clean, dry

No matter whether the calves are banded or cut, they need to be in clean, dry conditions to reduce the risk of infection. "I don't want to band or cut in muddy conditions," Larson explains.

After banding, monitor the calves for bleeding or signs of infection. If the calf is bleeding, it's best to get the calf in the chute to examine it and try to stop the bleeding, Larson says. If there are signs of infection, it is likely something was contaminated during the castration process or the calf's environment is not ideal. Either way,

the calf should be treated and kept in clean conditions away from mud.

Whatever method you choose, the important thing is to castrate the calves as early as possible to ensure their welfare and help you get the most out of your product. Strohhahn stresses the importance of having a good animal health program when it comes time to sell your calves, because in today's beef cattle business, the "normal" calf will be castrated, dehorned, weaned at least 30 days and preconditioned.

He says, "When we look at this whole routine of producing a product that we're proud of, that has a genetic background that's exceptional, and it has a health program to go along with it — that's a product we can sell in the marketplace and be competitive with. And I think we are all trying to put our best possible product out there." **HW**