



4-H Beef Project Guide: Dehorning and Castrating

Oklahoma Cooperative Extension Service • Division of Agricultural Sciences and Natural Resources

Beef cattle producers lose thousands of dollars annually because they do not dehorn or castrate calves, or have them processed in a timely manner. Why should you dehorn and castrate calves? When and how should you do it? This project guide answers these important questions.

Caution: Do not try to dehorn or castrate animals until you have been taught and are guided by someone experienced in the proper techniques.

Dehorning

Some breeds of cattle are polled (without horns), and some breeds grow horns, which have no practical use to commercial beef cattle. Horned cattle can be dehorned by means of surgery, heat, or chemicals.

Producers prefer dehorned or polled commercial beef cattle for several reasons. These cattle: (1) sell for a higher price, (2) are safer to handle, (3) fight and injure other cattle less, and (4) require a smaller area of feed bunk and barn space.

Calves should be dehorned early in life, preferably before two months of age, to lessen stress and setback in growth. As cattle get older, this procedure becomes more difficult to perform, and poses a greater danger to the animals. Dehorning older cattle causes more stress due to increased bleeding and subjecting the sinuses to irritation and infection.

Chemical Dehorning. A caustic paste or stick can be used to dehorn calves up to six or eight weeks of age, when only a button can be felt. Clip the hair from over the button and apply Vaseline below the area to protect the eye. If using a caustic stick, moisten either the button or the end of the stick. Keep the calf by itself a few hours until the treated area is hardened and dry. Be careful not to get any caustic material on yourself or in your eyes.

Hot Iron Dehorning. A hot iron is an excellent way to dehorn calves up to approximately three months of age. Electrically heated irons should maintain a proper temperature, while fire-heated irons should be heated only to a dull red. Hold the iron on just long enough to brand the hide around the base of the horn to the color of new leather. The hot iron method of dehorning is bloodless. Always wear leather gloves when using a hot iron.

Surgical Dehorning. Horn buttons or small horns can be removed with a spoon or tube dehorner. The tube must

be large enough to fit over the base of the horn and include about 1/8 inch of hair. Push and twist until the skin has been cut through. Then, using the cutting edge of the tube, cut under the horn and remove it. Apply an antiseptic and insect repellent, if needed.

Barnes-type dehorners are available in calf and yearling sizes. Fit the blades around the base of the horn, including a ring of skin and hair. Spread the handles and twist, while applying considerable pressure against the skull. Pull the major exposed arteries with suitable forceps to control bleeding. The major source of bleeding is usually a large artery in the lower part of the cut on the side nearest the ear. One or two other arteries usually need to be pulled, one near the top of the cut and the other near the bottom. Arteries are elastic, so they stretch when pulled and then break below the surface. Apply a non-irritating antiseptic and fly repellent. If at all possible, until they are healed, turn calves out in an area that will reduce the chance of getting debris in the wound.

Your veterinarian should dehorn cattle with horns to large to be removed by these methods. He or she may use a local anesthetic to limit pain to the animals and to allow for a more effective job. A saw, clippers, or surgical wire can be used for the procedure. The larger the horn, the more important it is to control bleeding. Dehorning wounds in large cattle heal slowly, and you must take care to prevent a sinus infection. If you are having show cattle dehorned, you should consider cosmetic dehorning. Your veterinarian can remove the horns and close the wound to improve the appearance of the poll.

Castrating

Castrating is the neutering of male animals by removing the testicles, either surgically or otherwise. Bulls are castrated because steers are preferred in feedlots, and cattle feeders are willing to pay more for steers because of their calmer disposition and relative ease of handling. Consumers prefer meat from steer because castration improves the quality. Bulls can be castrated at any age; however, stress will be reduced to a minimum when the procedure occurs under three months of age.

Surgical Castration. One person can safely castrate a newborn calf. Securely tie the calf's rear legs and at least one front foot. Cut off the bottom third of the scrotum either a knife or scalpel. Expose the testicles one at a time through the incision. Pull on a testicle until the muscle separates.

Sever the cord as high as possible by scraping with the knife blade. An emasculator, which crushes as it cuts the cord, may be used to reduce hemorrhaging in older calves. Apply an antiseptic and, during fly season, and insect repellent.

Larger calves are more difficult to restrain. An older calf can be cast on its side, or castrated while standing. Casting may require two assistants, whereas standing restraint requires one assistant with a halter or headstock. A calf can be held on its side by one of the assistants placing a knee across the neck and keeping the upper foreleg pulled back and flexed. A second assistant can restrain the hind legs by sitting on the ground directly behind the calf while grasping the upper hind foot and pulling it backward. This assistant's feet are braced against the lower hind leg just about the hock, pushing it forward to prevent kicking.

A secure tail-hold is the best assurance against being kicked while castrating a standing calf. The assistant should stand against the calf's side with one knee pressed under its flank. The calf's tail should be grasped near the tail-head and bent sharply upward and forward, taking care not to break the tail.

Emasculator. An emasculator (clamps) provides a bloodless and satisfactory method of castration when used properly. Clamping is best done with the calf standing and a tail-hold applied. Position one cord against the outside of the scrotum. Clamp approximately midway between the testicle and the twist. Feel for the cord to make sure it did not slip out. Be careful not to clamp the penis or the inside of the thigh. Repeat the procedure on the other cord just above or below the first clamp mark, making certain to leave the median unclamped for free circulation of blood to the scrotum.

Elastrator. This is the least desirable method of castration. It is bloodless, but calves castrated in this manner are subject to tetanus (lockjaw) infection. Sometimes the rubber ring fails and voids the operation. The post-operative ap-

pearance produced by complete removal of the scrotum is objectionable to some producers.

Do not use the elastrator on calves over one month old. Place one rubber elastrator band over the prongs of the applicator. Squeeze the handles several times to prime and check the integrity of the band. Next, expand the rubber band, and with the prongs toward the calf's body, press both testicles through the ring, release the rubber band, and remove the applicator. Check to be sure both testicles are below the ring before and after releasing the rubber band. The calf will exhibit discomfort for about 30 minutes. The scrotum should drop off in about two weeks. If tetanus has ever occurred on your farm, vaccinate calves with tetanus antitoxin at time of castration.

Questions

1. What is the term for hornless?
2. Name four advantages of cattle without horns.
3. Name the three methods of dehorning.
4. What is the main advantage of dehorning and castrating calves when they are young?
5. What is a castrated bull called?
6. What disease is associated with use of the elastrator?

Activities

1. Read differing viewpoints on animal welfare to understand better how animals in production agriculture can be treated humanely.
2. Visit a veterinarian in food animal practice. If invited, go with him or her on farm calls.
3. Visit a livestock market and observe the monetary value of dehorning and castrating.
4. Visit an exhibit of veterinary supplies at a fair or show and learn the uses of the different instruments.

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