

Dehorning Calves



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Dehorning Calves

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Dehorning calves is a simple, cost-effective practice that adds value to feeder cattle. Feeder cattle that are either polled or have been dehorned usually sell for \$1.50 or \$2.00 more per cwt. than those with horns when marketed.

Horned cattle in feedlots cause substantial bruising of carcasses during transporting and handling. Results of the 1992 National Beef Quality Audit revealed that 31.1 percent of the cattle in feedlots had horns. These horned cattle accounted for a \$1 loss for every animal slaughtered or a total loss to the nation's beef industry of \$24.5 million. Most of the bruises are on the rib, loin, round and other high-priced cuts. The USDA's National Animal Health Monitoring System (NAHMS) conducted a survey of 1,250 feedlots in 1999 and the results showed that 17.4 percent of all the cattle placed in feedlots had horns.

The 1994 National Non-Fed Beef Quality Audit evaluated beef produced from cull cows and bulls. It revealed that the frequency of horns in cull cows and bulls was higher than in fed cattle. The audit showed that horned cull cows and bulls have twice as many bruises as

hornless cattle. The audit also showed that bruises created a \$12 loss per head for every cull cow and bull that the industry slaughtered in 1994.

Breeding animals in the herds should also be dehorned to improve the ease of working and to reduce the possibility of injury to both producer and cattle. Cattle without horns also take less space at the feed trough and cause fewer injuries during transportation.

Calves sold as feeders and requiring dehorning experience both reduced performance and increased sickness. Dehorning of these calves normally occurs while they are also stressed by weaning, marketing and transporting. The USDA NAHMS conducted a survey of feedlots in 1999. These feedlots indicated that feeder calves dehorned at least four weeks prior to shipping had reduced sickness or death loss.

Dehorn Calves When They Are Young

If calves are dehorned early in life, there are few complications. However, some labor and equipment are required. Calves

dehorned at more than 2 months of age may require two weeks to return to their pre-dehorning weight. A few calves may develop infections, and rarely an older calf can die of blood loss. Calves are best dehorned at less than 1 month of age to avoid set backs and complications. Dehorning in the early spring or fall avoids the fly season and makes infections less likely. Total cost for dehorning has been estimated at \$5 per head. This cost can be reduced when combined with other practices. The 1997 NAHMS survey of cow-calf management practices revealed that the average age of dehorning calves was 162 days, or 5.4 months, which is too old.

Restraint Can Prevent Injury to Both the Producer and the Animal

An important first step in dehorning is to have an appropriate and adequate method of restraining the calf. Proper restraint insures the safety of both the calf and the operator. Calves less than 1 month of age can be dehorned by laying them on their side and holding them

down. This may require an extra person and the ability to tie down a young calf. A squeeze chute or headgate will be needed for older calves. A head bar and nose bar will aid in restraining the animal's head.

Correct Dehorning Prevents Future Growth

When done correctly, dehorning will both remove the horn and also prevent it from regrowing during the life of the animal. The horn grows from the skin at the base of the horn. A properly dehorned animal should have a $\frac{1}{4}$ – $\frac{1}{2}$ inch wide ring of skin at the base of the horn removed to prevent horn regrowth.

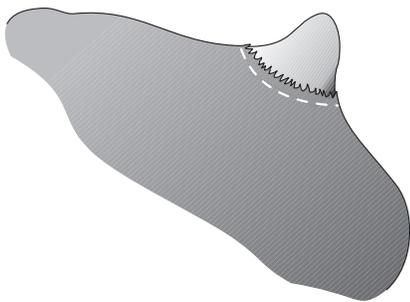


Figure 1. Proper location for horn removal

Proper Preparation Makes Dehorning Easier

Before dehorning, all equipment should be sharp, in good working order and disinfected to prevent horn wound infection. Chlorohexadine and

povidol iodine are commonly used disinfectants. Also, carefully follow label directions in mixing disinfectants and water. A solution with an incorrect concentration will not properly disinfect.

Methods of Dehorning

Although the simplest method of producing calves without horns is to use a homozygous polled bull, many other methods are available to dehorn calves. These methods include chemical, "tube," hot iron, Barnes dehorners, saws, wires and keystone dehorners.

Chemical Dehorning Works Well with Young Calves

Chemical dehorning involves applying a stick or paste containing a caustic chemical, such as sodium or potassium hydroxide, to the horn bud. This method is best used on calves less than 3 weeks of age and can be done after 1 day of age. It is important to read and carefully follow package directions to safely and effectively use this method. Necessary supplies are inexpensive and readily available. They include:

- Caustic paste or stick
- Clippers or scissors
- Petroleum jelly

Calves to be dehorned are placed on their side and held down. The hair is clipped around the horn bud and out to make a 1-inch diameter hairless circle. Petroleum jelly is applied all around the outer edge of the hairless area to prevent burns from the chemical. The caustic material is applied inside the circle of petroleum. No bleeding will occur and there should be no fly problems. It is a good idea to use gloves when applying caustic material.

The calf should be kept away from its mother until the caustic material becomes dry and hard. If they are not kept separated, the calf may cause burns to the cow's flank or udder due to contamination from the caustic material.

The calf should be kept out of the rain for a day or two. Rain may cause the caustic material to run down the calf's face or into its eyes.

A scab should form over the horn buds within a few days after applying the caustic. This scab should drop off in one to two weeks, leaving a hairless area.



Figure 2. Using caustic chemicals to dehorn calves

Tube Dehorning Can Remove Horns from Calves Less Than 2 Months of Age

Tube dehorning is best done in calves less than 2 months of age with horns less than 1½ inches long. A special instrument, which comes in several sizes, is used to cut out the horn button and surrounding skin from the head. When a dehorning tube is used, the diameter of the tube should be ¼ – ½ inch more than the diameter of the horn bud base. To use the tube dehorner, the appropriate-sized tube is placed over the horn bud and pushed down to the surrounding skin. The skin is cut through by pushing down on the tube and twisting. After the skin is cut through, the horn bud is removed by leaning the tube over to the side and quickly pushing under the horn bud to remove it.

Hot Iron Dehorning Can Work Well with Young Calves

A variety of hot iron dehorners are available. The heat source may be fire, household current, batteries or butane. All these dehorners work by burning the skin at the base of the horn where the horn growth occurs. This method works best in small calves less than 2 months of age and when the horn is less than 1 inch long.

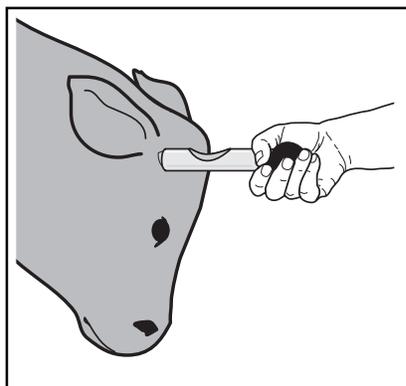


Figure 3. Using a tube dehorner

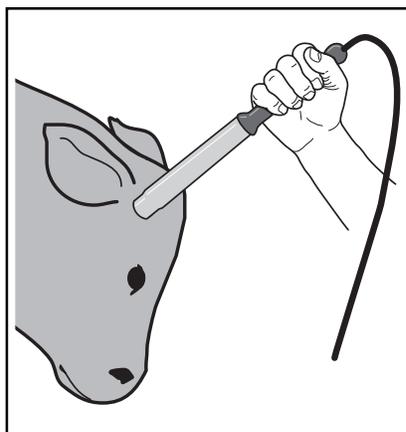


Figure 4. Using a hot iron dehorner

Following are steps in using hot iron dehorners:

- (1) Clipping the hair where the horn joins the head to make the hot iron dehorners easier to use.
- (2) Warm the dehorner to its proper temperature and restrain the calf.
- (3) Place the hot iron over the horn and hold it in place with firm pressure.
- (4) Twist the iron evenly to distribute the heat.
- (5) After 20 seconds of contact, remove the iron and look at the skin for a copper color indicating the skin has been heated enough to prevent horn growth. A white ring of skin should be seen inside the

copper ring and next to the horn. If the proper color change does not occur, reapply the iron for 10 seconds and check the skin color again.

- (6) The horn should fall off within four to six weeks.

Barnes Dehorners Work by Cutting The Horns Off Young Calves

Barnes dehorners remove the horns by cutting them off and are useful in calves from 2 months to 1 year of age. The dehorners come in several sizes, so it is important to select a size big enough to remove the horn and a ¼ – ½ inch circle of skin at the base of the horn. Place the Barnes dehorner so the widest part of the cutting blade is aligned with the widest part of the base of the horn. Close the handles of the instrument and place it on the calf's horn. Dehorning is completed by pressing the instrument firmly against the

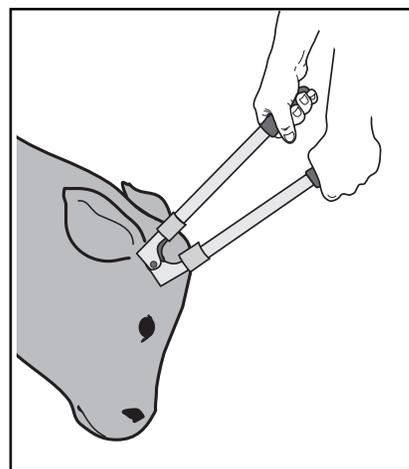


Figure 5. Using Barnes dehorners

calf's head and quickly opening the handles of the dehorner. A twisting motion, when the handles are nearly completely opened, assures a complete cut through the skin.

Saws, Wires and Keystone Dehorner Are Methods to Remove Horns from Older Cattle

Hand saws, obstetrical wire and keystone dehorner are generally reserved for use on older cattle with larger horns. Ideally, the need to dehorn animals greater than 1 year of age is infrequent. Remember that a 1/2-inch circle of skin must be removed with the horn to prevent regrowth. Be prepared to stop bleeding after dehorning and to care for two large, open head wounds for a period of time.

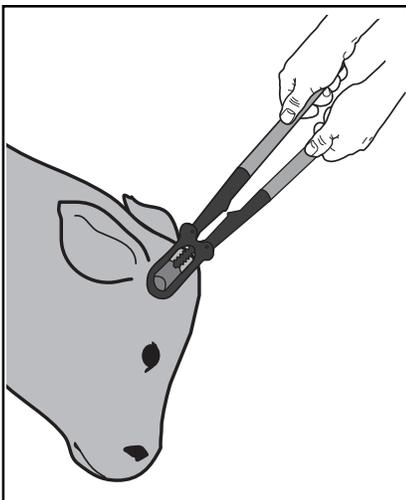


Figure 6. Using Keystone dehorner

Care and Management of Cattle Following Dehorning

Following dehorning, bleeding is more likely with older cattle. Artery clamps can be used to reduce the bleeding. These clamps grab the artery and slowly pull it away from the head until it breaks. Stretching the blood vessel causes it to contract so clotting can occur. After bleeding has slowed or stopped, apply blood coagulation powder and fly spray to the wound. This reduces the likelihood of continued bleeding and infections. The calf should then be released into a quiet, shaded environment so its blood pressure will go down. This is an important step in reducing bleeding. After dehorning each calf, all equipment should be thoroughly cleaned and disinfected in preparation for dehorning the next animal. Close observation of the calves for about 10 days and continued fly control is important.

Dehorning is a simple, cost-effective management practice that adds value to calves. Doing the job early in life, having good restraint and using an appropriate cleaned and disinfected instrument should prevent any problems.

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