Your calves will be worth more on the market if they are properly dehorned, castrated, branded and vaccinated.

Horned cattle in the feed lot use more trough space, prevent other cattle from feeding properly and may cause bruises that lower carcass values. Dehorned cattle look more uniform, feed better and bring a higher market price.

Castrate your calves before they are 8 months old to prevent "staggy" appearance and a lower price. Vaccinate your calves to prevent losses from certain diseases such as blackleg, malignant edema, enterotoxemia. It pays.

Branding properly gives permanent identification and proof of ownership. Do not lose calves through mistaken identity due to a poor branding job.

Proper equipment - corrals, chutes and tools - for handling cattle is also needed to do a good job.

BLOODLESS DEHORNING - Calves up to 10 days of age can be dehorned with dehorning liquid:

1. Dehorning liquid with colodion base dries and forms a rubber like covering that is not easily rubbed or washed off. Apply with brush or swab.

2. Dehorning paste is placed on the horn "button" with a small wooden paddle. Prevent the paste from contacting skin of either the calf or the operator. Several commercial dehorning pastes are on the market.

3. Caustic soda or potash is also called "caustic stick". Clip hair from around the small, undeveloped horns or buttons and apply petrolatum to prevent caustic from coming into contact with skin.

The end of the caustic to be held in the hand should be wrapped in paper or cotton. Moisten the other end. Rub the moist end of the caustic on the undeveloped horn. Two or three applications are necessary. Allow the caustic to dry after each application. This will take only a few minutes. If applications are thorough there will be no further horn growth. Remove a ring of at least 1/4 to 1/2 inch of skin that completely surrounds the removed horn to prevent regrowth of the horn.

Protect calves treated with caustic from rain for a few days following the treatment.

4. Electric dehorners

Most electric dehorners have a cupped attachment. The horn tissue is burned by the cup placed over the horn buttons. This method is bloodless but must be done when calves are young. This method is not entirely satisfactory as there is sometimes a regrowth of horn tissue unless the burning application is liberally applied to destroy all potential new horn tissue.

TUBE DEHORNER

Use the tube dehorner on calves up to 4 months of age. Tubes come in various sizes. Use one that fits the base of the horn. The horn is gouged out by a turning action. This is an excellent method of removing horn buttons.

SPOON DEHORNER

This tool is used on small calves to cut or gouge out horn button. Some ranchers use a heavy hunting knife to cut off the horn buttons, then follow by circling the edges with a caustic stick.
Dehorn cattle for extra profits. Do the dehorning as soon as you can. The operation is less severe on calves and is easier for you to do. There are several ways to dehorn your calves.

**MECHANICAL DEHORNERS**

For Calves

This instrument, widely used by ranchers and farmers, has cutting blades that will remove horns on calves from 2 months to 8 or 10 months of age. Take a ring of skin off with the horn so new skin will grow over the horn base. This prevents further horn growth.

For More Mature Cattle

You can use a mechanical dehorner for dehorning more mature cattle. These are designed for speed in operation.

Make the cut at a point about 1/4 to 1/2 inch below the junction of the horn with the skin or hide. If this is done, the skin will grow over the horn base, preventing further horn growth.

**DEHORNING SAW**

You can use a saw when only a few cattle are to be dehorned.

Dehorning saws have blades especially designed for cutting horns. Make the cut about 1/4 to 1/2 below the junction of the horn with the skin or hide. This will allow the skin to grow over the horn base and prevent further horn growth. You can also use a fine toothed carpenter's saw for dehorning.

**DISINFECTION**

It is most important that instruments used in castration and dehorning be disinfected thoroughly between each animal. This helps prevent infections and the spread of disease, such as anthrax, blackleg, warts or anaplasmosis. Disinfection of the operator's hands helps prevent disease spread from animal to animal and also protects the operator from infection. The application of disinfectants to the skin before castration or after is of little benefit. (See Extension Service Circular A-319, Disinfection.)

There are many good disinfectants available such as lysol, various quaternary preparations (Roccal, dairy utensil cleaners) and chlorine preparations. Iodine is an ideal skin disinfectant but is destructive to instruments. Kerosene has no disinfectant qualities. Consult your veterinarian on disinfectants and fly repellents.

**TREATMENT OF WOUND**

If dehorning or castrating is done in cool weather when there are no flies, no wound treatment is needed.

If flies are present there is danger of maggot infestation.

Check wounds and paint weekly until healed. Other commercial products can also be used. Pine tar is an old favorite wound dressing used by many stockmen. Aerosol preparations and smears can be obtained from your veterinarian.

**CASTRATION**

Bull calves from a few weeks up to 8 months of age may be castrated without serious consequences. Older animals usually bleed more, so greater care must be used in castrating mature bulls. If a bull calf is not castrated before 8 months he may become "staggy" which is objectionable in the feeder and fat steer.

**CASTRATING KNIFE**

Three methods often used in castrating calves are:

1. Grasp the lower end of the scrotum and stretch it out tightly, then cut off the lower third. This method exposes the ends of both testicles. Remove one testicle at a time. Pull the testicle out of the scrotum and cut to allow 3 to 4 inches of the cord to remain on the testicle. Sever cord by scraping and exerting simultaneous tension by drawing on the testicle. Cutting with sharp instrument may cause bleeding.
2. The second method is to slit each side of the scrotum. Make the incision on one side and remove the testicle from that side before making the incision on the other side. Make the incision over the center of the testicle, from about the top third to the lower end. It is essential to extend the slit well toward the lower end of the scrotum to allow for proper drainage.

On older cattle, some cattlemen prefer to draw the cord tightly over the index finger of the left hand and cut it by scraping with the knife. Placing the cord under tension and severing with an emasculator is also most satisfactory. Either of these last two methods of cutting the cords on older animals has a tendency to check the flow of blood. It is necessary to perform the operation with clean instruments, under sanitary conditions.

OLDER BULLS

Make cuts on front of scrotum
Make cuts down, lower 2/3

3. Another method used on young calves is to grasp the lower end of the scrotum, stretch it out tightly, stick the knife through the scrotum about midway and cut the sack open. Then pull each testicle out with the long cord attached. This method is fast, clean and allows a full cod to develop.

BLOODLESS CASTRATION

The method known as "bloodless castration" calls for a special type of pincers, pliers or clamps, which crush each cord separately an inch or two above the testicle. The method is a satisfactory means of castration if done properly, but if the operation is performed too hastily the cord may be completely crushed and the steer is likely to develop stagginess later on.

Pinch one cord at a time. Care should be taken to see that the cord is placed between the jaws of the pincers before they are closed. As there is no break in the skin of the scrotum, there is no external bleeding. This is an advantage in areas in which screwworms are troublesome.

EMASCLATOR

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Steers so castrated usually develop larger and fuller cods by the time they are ready for market. This is considered desirable for well finished steers by some cattlemen.

Another type of bloodless castration is called elastration. Possibilities of tetanus (lockjaw) and the lack of cod development as steers become fat are the disadvantages of this method.

VACCINATION

Vaccination is a type of preventive medicine. Some diseases can be controlled by vaccination while others cannot. Effective vaccines for cattle include blackleg, malignant edema, anthrax, leptospirosis, brucellosis and enterotoxemia.

Some of the bacterins used for the prevention of disease are of doubtful value. This would include vaccine for shipping fever and pink eye.

Always use vaccines and bacterins that are fresh. Look at the expiration date before buying. Follow the method of injecting advised by the manufacturer or by your veterinarian.

Clean the area to be injected with a strong antiseptic. Use a sterile syringe. Make the injection carefully. All syringes and needles should be boiled and thoroughly disinfected before use. Unused portions of opened vaccine containers should be discarded or placed under refrigeration between uses.

Vaccination is only one of the tools of disease control. It is a common saying that “no disease has ever been vaccinated out of existence”.

The strict following of the rules of sanitation and good management practices must accompany vaccination. Vaccination will not replace cleanliness, proper feed and shelter.

USING VACCINES

1. Use sterile equipment.
   a) Boil syringes and needles for 30 minutes.
   b) Never use chemical disinfectants on equip-
ment when administering attenuated vaccines — destroys living agent.
c) Chemical disinfection satisfactory for inactivated vaccines, antiserums, and toxoids.

2. During warm weather, keep attenuated vaccines on ice and out of sun until administered.

3. Use sterile techniques during administration.
   a) Disinfect vial stoppers with alcohol before needle penetration.
   b) Use separate needle for filling syringe and for administration.


PURCHASE OF VACCINES

1. Purchase vaccines only from sources maintaining refrigerated storage.

2. Purchase vaccines with sufficient expiration dates for your future use.

3. Transport attenuated vaccines out of sun and keep them cool.

4. Store all vaccines in refrigerator until ready to use.

5. Purchase and use only vaccines that are useful under your husbandry program.

BRANDING

Register your brand with the Commissioner of Agriculture and Labor, Bismarck, North Dakota.

Your brand is also your trademark. A good brand on your good calves is your best advertisement.

The brand is usually placed on the calf before weaning time.

The hot iron method of branding is the most common. Electrical branding irons are becoming popular. Branding liquids are discouraged. They lead to blurred brands and wounds that are difficult to heal. Cattle and calves are handled by casting or by chute branding.

A new development is a calf branding table. This places the calf in a convenient position to be branded, vaccinated, dehorned and castrated. This branding table is placed at the end of a chute and calves are run in one at a time.

CHUTES AND CORRALS

Facilities for handling livestock are important in saving labor as well as getting certain jobs done. Ask your county agent for plans, bulletins and blue prints.