



HOT IRON DISBUDDING FACT SHEET

A Fact Sheet for the Canadian Beef Industry

Dr. Melissa Moggy

Purpose of Disbudding

All breeds of cattle are either naturally horned or polled (without horns). Horns start off as horn buds, which are really a bundle of horn-producing cells that have yet to attach to the skull. Horn buds attach to the skull around 2 to 3 months of age, depending on the breed.

Disbudding is the removal of these horn buds. Removing the horns from cattle decreases the danger to farm personnel and other cattle, which can bruise carcasses and damage hides [1].

Disbudding is usually achieved by the application of a chemical paste or by a hot iron to burn the horn producing cells. Removing the horn buds before they attach to the skull results in less pain to the calf and less risk of infection. Therefore, it is recommended that calves should be disbudded within 2 months of age. The National Farm Animal Care Council (**NFACC**) does not recommend dehorning during weaning, due to the stress that the calf is already experiencing [2].

To avoid the time and cost involved in disbudding, an alternative is to breed polled lines of cattle into your herd. Studies have shown that there is no difference in reproduction or growth between polled and horned breeds [1,3].

Hot Iron

Disbudding through the use of a hot iron should only be performed by trained personnel. Sedation and pain control make this procedure much easier and safer for both calves and personnel [1,4]. Hot irons come in many sizes. The best size covers the base of the horn bud. Allow the hot iron to heat up until the iron is red. Restrain the calf and immobilize the head.

Find the horn buds and clip the hair around the buds so that the iron can have direct contact to the horn bud. Clipping the hair is optional, although it does make it easier to locate the area to burn and decreases the amount of smoke.

Place the burner over the horn bud and press down with even pressure, as shown in Figure 1. Rotate the burner while continuing to apply even pressure for 10 seconds. Lift the burner off the horn bud. The horn bud tissue has been completely killed when there is a copper colored ring around the horn bud. If the ring is not complete, reapply the hot iron. The horn bud should fall off in 7-10 days.



Figure 1: Placement of hot iron to the horn bud

It is very important to pay attention to how long the hot iron is placed onto the horn bud. Leaving the hot iron on too long can result in the heat penetrating the skull and damaging the brain.

Pain

All methods of disbudding cause pain and stress to calves. Signs of pain after disbudding include:

- Abnormally stretching the neck
- Ear shaking or flicking
- Head shaking
- Head rubbing
- Reduced activity level
- Reduced interest in feed and/or water
- Tail flicking

The use of pain control, through nerve blocks, anti-inflammatory medications and sedation can decrease the pain and stress associated with this procedure [1,4]. Consult with your veterinarian as to what your operation can do to prevent pain during and after disbudding [2].

For Your Information



Code of Practice Requirements

- **Effective January 1, 2016:**
Use pain control, in consultation with your veterinarian to mitigate pain associated with dehorning calves after horn bud attachment.

Acknowledgement

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References:

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4. Stafford, K.J. and D.J. Mellor. 2005. Dehorning and disbudding distress and its alleviation in calves. Veterinary journal. **169**(3): p. 337-349.

✉ High River PO Box 5201
#5 112 Centre Street
High River, AB T1V 1M4

☎ 403-652-5111
FAX: 403-663-3035
🌐 www.afac.ab.ca

📍 Alberta Farm Animal Care
🐾 @AbFarmAnimal



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