

Disbudding/Dehorning Dairy Calves

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Removing horns from dairy cattle is an important farm safety practice because it prevents injuries to people and cattle. Removal of the horn or horn bud is a painful procedure and can be minimized by disbudding/dehorning cattle at a young age with proper pain management. Ideally, disbudding/dehorning should occur prior to six weeks of age. After this age the horn bud attaches to the skull, and the procedure is much more invasive.

In terms of pain management, polled genetics is the best method because there is no pain associated with genetically preventing horns in animals.

Hot Iron Disbudding/Dehorning

Recommended by 6 weeks of age

Benefits

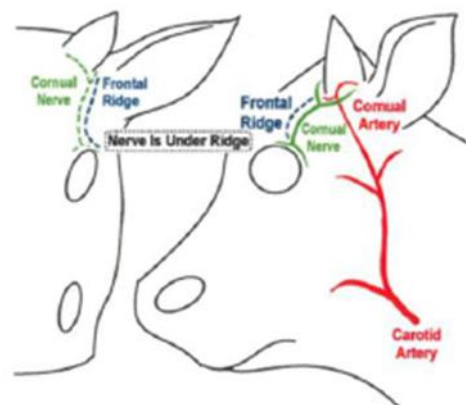
- Low risk of incomplete disbudding
- Can be performed on calves up to 6 weeks of age
- Weather and housing do not impact efficacy

Risks

- Typically requires greater labor and restraint
- Smell of burnt hair
- Requires meat-withhold due to drug use

Steps for Hot Iron Disbudding/Dehorning:

1. Properly restrain the calf's head using a halter or head restraint. Meanwhile, preheat the butane or electric calf dehorner. As the dehorner is preheating, keep it away from all flammable material.
2. Clip the hair around the base of the horn for best visualization of the horn bud.
3. Local anesthesia utilizing a cornual nerve block is highly recommended to reduce the acute pain and discomfort associated with hot iron disbudding. Reduce pain and discomfort by providing a nerve block of the cornual nerve on each side of the head. The cornual nerve is located half-way between the lateral aspect of the eye and the base of the horn just below the bony ridge formed by the frontal bone. Palpate the ridge between the eye and the horn. Slide a 20-22 gauge, ½" needle straight in under the ridge halfway between the eye and the horn, injecting 2% lidocaine subcutaneously. Older calves will need additional pain measures. Using lidocaine results in a 4-day meat withhold. To ensure proper placement and dosage, CONSULT VETERINARIAN through the context of the Veterinarian/Client/Patient Relationship (VCPR).
4. Non-steroidal anti-inflammatory drugs (NSAID) are recommended in addition to local anesthesia to reduce the inflammation and associated pain following disbudding/dehorning.
 - a. Meloxicam is an oral tablet available with a VETERINARY PRESCRIPTION. Meloxicam is given orally before, at, or after disbudding/dehorning to minimize pain. Using meloxicam orally results in a 21-day meat withhold. Meloxicam for use associated with pain is prescribed extra-labeled through the VCPR. CONSULT VETERINARIAN for proper dosage.



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- b. Flunixin is an anti-inflammatory drug that helps alleviate pain by reducing the inflammation caused by disbudding/dehorning. This drug is given at time of disbudding/dehorning **IV ONLY and results in a 4-day meat withhold. DO NOT USE INTRAMUSCULARLY OR SUBCUTANEOUSLY.** CONSULT VETERINARIAN for proper dosage. Because withdrawal times have not been established in pre-ruminant calves, flunixin should not be given to veal calves.
5. When disbudding/dehorning calves with heat, use a device with a diameter just larger than the horn base, so as to cauterize the skin immediately surrounding the horn bud. Apply pressure and rotate back and forth until a copper-colored ring forms, approximately 5-20 seconds. Do not leave the dehorner in place for much longer, especially in young calves. There is little chance of regrowth when the cauterized skin is loose or movable when touched following the procedure. The horn bud or button will slough off in 4-6 weeks.

Caustic Paste

Recommended during the first 3 days of life

Benefits

- Can be done at less than 3 days of age
- No strong odor during application

Risks

- Potential damage to face and eyes of calves
- Improper application and run off can cause incomplete disbudding, requiring dehorning at a later age

Steps for use of Caustic Paste:

1. Properly restrain the calf's head using a halter or head restraint.
2. Clip the hair around the base of the horn to expose horn bud.
3. Apply the paste with gloved hands. Do not apply if calves can get wet, as paste will run causing damage to the calf.
4. To prevent smearing the paste after application, cover each horn bud with duct tape, or vet wrap.
5. After applying paste, keep calves separated for at least 1 hour and out of the rain for at least 6 hours. Calves MUST be housed on their own. Calves housed with cows will transfer paste to the udder of the cow causing a burn. Calves housed in groups are more likely to transfer paste to other calves.
6. Non-steroidal anti-inflammatory drugs (NSAID): See Page 1, #4.



An example of proper head restraint

**All drugs mentioned in this factsheet require a veterinary prescription and should be done only in the context of a valid Veterinarian/Client/Patient Relationship (VCPR).*

***Organic producers should consult certifying agency for the list of approved products for local anesthesia and pain management for dehorning/disbudding.*

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