



## **DISBUDDING/DEHORNING GUIDELINES**

*Disbudding/dehorning cattle reduces the risk of injury to the animal, other cattle and people and, during transportation to slaughter facilities, reduces bruising of carcasses. These guidelines serve to assist veterinarians and producers with enhancing the welfare of cattle by providing guidance related to disbudding/dehorning of calves on beef and dairy operations. Essential to this process is that consultation and training occurs between the Veterinarian of Record identified in the Veterinarian-Client-Patient Relationship and the client regarding disbudding/dehorning protocols. The use of written, herd-specific protocols to document these discussions is encouraged. Such protocols should be reviewed on a regular basis.*

### **AGE**

Removing or destroying horn-producing corium at the earliest age possible reduces both stress and pain associated with the procedure and decreases healing time. Disbudding removes or destroys the horn-producing corium before attachment to the frontal bone in young calves. This occurs at approximately eight weeks of age. Dehorning removes the horns after the horn-producing corium has attached to the skull. It is considered a more painful procedure with longer healing time. Disbudding by eight weeks of age is preferred. In beef operations, disbudding/dehorning should be performed as early as the management system allows.

Individual farm protocols should be based on recommendations of the Veterinarian of Record and discussions with farm/ranch management.

### **RESTRAINT**

Calves should be restrained for disbudding or dehorning in a way that minimizes stress and the risk of injury to the animal and the caretaker. Chemical restraint (sedation) may be used to minimize stress and increase ease of handling. Federal law restricts the use of sedatives by or on the order of a licensed veterinarian. Animal caretakers should be trained on safe, low-stress handling and be provided the time and resources necessary to achieve this type of handling. The use of a squeeze chute, tilt table, calf cart or halter may accomplish proper head restraint. The application of local anesthetics to minimize the need for excessive restraint should be utilized.

### **METHOD**

Acceptable methods for disbudding include application of caustic paste or an electric/gas hot iron to destroy the horn producing corium. Caustic paste should be applied within the first few days of life.

Acceptable methods for dehorning include gouge dehorning, tipping, or surgical (cosmetic) dehorning. Tipping the horn refers to partial removal of the less vascular end or “tip” of the horn, which does not consistently open the sinus. Surgical dehorning should be performed by a licensed veterinarian. The use of elastic banders as the primary method of dehorning should not be done due to increased rates of failure, increased pain and delayed healing.

A protocol should be in place for managing dehorning wounds, including control of pain, infection, and flies. Dehorning at the earliest age possible within the management system mitigates the need for gouge dehorning or tipping in most circumstances. Producers of breeds with access to polled sires should be encouraged to incorporate polled genetics into their herds.

Individual farm protocols should be based on recommendations of the Veterinarian of Record and discussions with farm/ranch management.

### **PAIN MANAGEMENT**

All methods of disbudding and dehorning cause pain. AABP recommends scientifically validated pain management be considered the standard of care during all dehorning and disbudding procedures. Producers should work with their Veterinar-



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ian of Record to develop the most appropriate, individualized pain management protocol for their system. Multimodal pain management (defined below) provides better welfare than individual methods alone and should be utilized when possible.

**LOCAL ANESTHESIA** Use of a local anesthetic mitigates the immediate pain associated with disbudding and dehorning and provides up to five hours of post-procedural analgesia. There are a variety of local anesthetic techniques including cornual nerve block, horn bud infiltration or ring block. The local anesthetic protocol should be determined and prescribed by the Veterinarian of Record. Federal law restricts the use of local anesthetics by or on the order of a licensed veterinarian.

**SYSTEMIC PAIN RELIEF** Injectable, topical or oral non-steroidal anti-inflammatory drugs (NSAIDs) should be used to provide additional and longer lasting pain relief. Additional doses

may be beneficial during the healing process, particularly if dehorning.

The type of NSAID used should be prescribed by the Veterinarian of Record. There are currently no approved drugs in the United States for use in cattle with an indication to provide analgesia associated with disbudding or dehorning pain. The Animal Medicinal Drug Use Clarification Act (AMDUCA) regulations allow a regulations allow extralabel drug use provided a valid Veterinarian-Client-Patient Relationship exists, and the drug selection process, records and withholding times outlined in the AMDUCA regulations are followed.

**CHEMICAL RESTRAINT** Sedation with an alpha-2 agonist may be indicated in certain situations, but is not considered to provide effective analgesia for the procedure. In instances where chemical immobilization is desired, the Veterinarian of Record should determine the appropriate combination of sedative, local anesthesia and/or systemic NSAID administration.

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#### DEFINITIONS

- ANALGESIA Alleviation of pain.
- DEHORNING Removal of the horns and horn-producing corium after the horns have formed and are attached to the skull.
- DISBUDDING Removal or destruction of the horn producing corium in young calves. At this age the horn buds are free-floating and not attached to the skull.
- SEDATION Slight depression, patient is awake.
- MULTIMODAL ANALGESIA Alleviation of pain using multiple tools available to cover acute and chronic pain responses in the animal. This could include such examples as combining local anesthetic blocks with systemic NSAIDs or general anesthetics.

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