

Position Statement

Calf Disbudding

Disbudding is performed for the safety and welfare of animals and workers. VAFW endorses multimodal pain management strategies as the standard of care for *all* calves undergoing this painful procedure.

Disbudding is a procedure that destroys the horn-producing cells before they attach to the skull. It may be performed using a hot iron or caustic paste, resulting in thermal or chemical third-degree burns, respectively. Both methods cause a calf acute procedural and post-procedural inflammatory pain and must be performed by a trained operator. Disbudding differs from dehorning, which occurs after skull attachment, must be performed by a veterinarian, and *is reserved for extenuating circumstances*.

Operators must be trained in low-stress handling, methods of restraint that ensure the safety of both animal and worker, and appropriate anesthetic and analgesic administration. The veterinarian of record should be involved in the development of all pain management protocols, as well as in training and compliance assessments.

TIMING AND METHOD OF DISBUDDING

If disbudding is to be performed, VAFW recommends the procedure be completed as soon as the horn bud becomes visible and palpable, typically within the first week of life. Although the horn may not attach to the skull until eight weeks of age in common cattle breeds, disbudding should occur prior to two weeks of age to minimize tissue damage and pain.

Emerging research suggests that chemical disbudding results in more severe and protracted pain than hot-iron disbudding. If chemical disbudding is performed, caustic paste should be applied within the first five days of life, and appropriate precautions must be taken to avoid unintended burns.

Pain and the Five Domains of Animal Welfare

Pain may negatively impact an animal's (1) nutritional intake and metabolism, (2) engagement with the environment, (3) health and immune function, (4) normal behavioral expression, and (5) mental state.

VAFW recognizes that pain is an affective state, and positive welfare is contingent upon its prevention and mitigation. In addition to multimodal pain management strategies, VAFW promotes the longer-term goal of reducing and eliminating procedures that result in pain through advances in management practices, housing design, and selective breeding.

MULTIMODAL PAIN MANAGEMENT

Disbudding requires a multimodal approach to pain management that includes, at a minimum, a local anesthetic to address acute procedural pain and a nonsteroidal anti-inflammatory drug (NSAID) to mitigate inflammatory pain. VFAFW supports the use of sedatives or anxiolytics when needed to minimize fear and stress, ensure worker and animal safety, and facilitate effective administration of the local anesthetic. Calves must be appropriately monitored to ensure a timely response to any adverse effects associated with sedative use. Although certain sedatives may have pain-relieving properties, they are never a replacement for local anesthesia, analgesia, or appropriate methods of animal handling.

Appropriate training and technique are critical to achieving an effective nerve block. The operator must allow sufficient time for the local anesthetic to take effect prior to disbudding. Calf reactivity indicative of pain signifies that more time is needed for the anesthetic to take effect, or additional anesthetic is needed within a safe dosage range. Topical anesthetics are not effective substitutes for a local nerve block.

ADEQUATE DURATION OF PAIN RELIEF

Scientific research confirms that in the absence of adequate pain management, the pain associated with disbudding can persist for months beyond the procedure. Prolonged, unalleviated pain may negatively impact physiological, social, and cognitive development in neonatal animals. VFAFW encourages producers to work with their veterinarian of record to integrate additional doses of an NSAID and/or other analgesics into their disbudding protocol, especially during the early stages of inflammation.

MOVING FORWARD

VFAFW supports research to improve current methods of pain management for disbudding and encourages the development and FDA approval of safe, effective, and accessible anesthetics and analgesics. VFAFW strongly encourages selective breeding for polled genetics that preclude the need for this painful procedure.



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The Veterinary Association for Farm Animal Welfare (VFAFW) is a 501(c)(3) nonprofit organization that advocates for animals used in food and fiber production by using a veterinary perspective grounded in animal welfare and ethics.

For more information, visit www.VFAFW.org or email info@VFAFW.org.