

Pain Mitigation for Dehorning Calves

by John Maday, Drovers Managing Editor - December 16, 2014

Veterinarians can use a variety of methods to help clients reduce the stress and pain associated with dehorning, according to the American Association of Bovine Practitioners Animal Welfare Committee.

In a note to AABP members, the committee notes that research has shown dehorning, and even disbudding calves at an early age of less than four weeks causes pain and distress, regardless of the method. Research has also demonstrated that calves benefit from the mitigation of both the pain associated with the procedure itself and during the recovery and healing period. The administration of local anesthesia such as lidocaine, in combination with non-steroidal anti-inflammatory drugs such as meloxicam, has been shown to provide effective pain mitigation during and after hot iron, cautery and amputation dehorning methods, according to research cited by the committee.

AABP also notes that using a local anesthetic does not appear to address the immediate pain associated with the use of caustic paste, and in fact may make it worse. However, providing an anti-inflammatory drug such as meloxicam prior to the application of caustic paste can minimize post-procedural pain. When combined with a sedative (xylazine), research has shown that caustic paste results in less pain to calves than dehorning with a hot iron combined with a sedative and local block. Use of xylazine as a sedative also can help mitigate distress associated with the handling and restraint required for dehorning.

It is important to note that meloxicam is not labeled for use in cattle in the United States, but veterinarians can administer it under the Animal Medicinal Drug Use Clarification Act (AMDUCA).

In a recent letter from the FDA's Center for Veterinary Medicine it was stated that extra-label use of drugs "is limited to treatment modalities when the health of an animal is threatened or suffering or death may result from failure to treat. We (the CVM) consider the use of analgesics and anesthetics for the purpose of alleviating pain...an acceptable justification for using approved drugs in an extralabel manner." Based on the terminal plasma half-life reported in dairy calves of 40 hours, a conservative meat withdrawal interval of 21 days is recommended.

According to AABP, meloxicam is available through several commonly used distributors. Current prices for a 1,000-count bottle of 15mg tablets means you can medicate calves at 0.45 mg/lb (1mg/kg) for less than a dime per hundredweight.