

**GIGLI WIRE DEHORNING:**



**CALLIBRATE BANDER:**

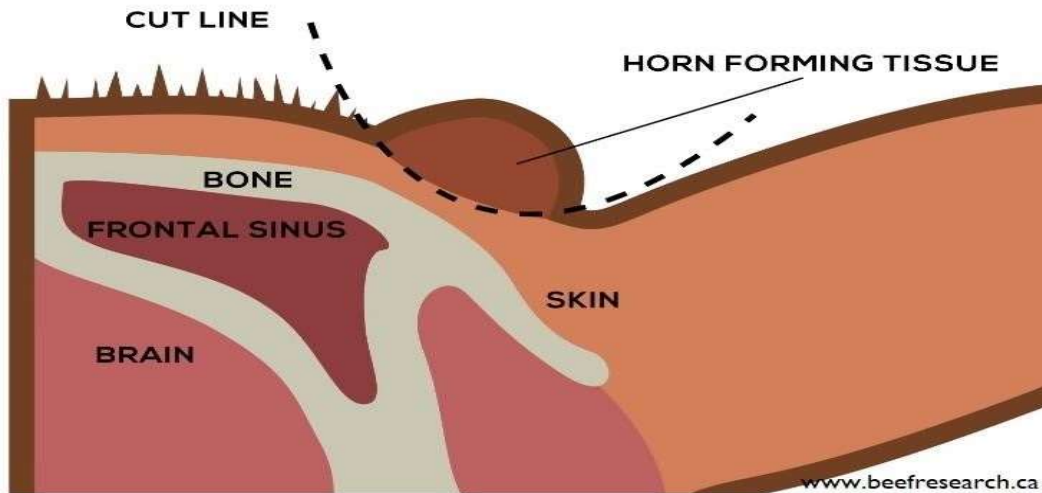


**CALLICRATE BANDER**

## DISBUDDER:



HORNED CALF - 0-3 MONTHS OLD



**IDEAL COPPER RING UPON CAUTERISING WITH**

## THE HOT IRON



*Figure 1: BEFORE*



*Figure 2: AFTER*

# Dehorning of Cattle

## Methods

- Dehorning iron
- Dehorning paste
  - (caustic potash)
- De-budding forceps
- Hack-saw
- Keystone Dehorner
- Embryotomy wire



Gigli Wire & Handles



Horn Gouge/



Keystone Dehorner



Barnes Dehorner

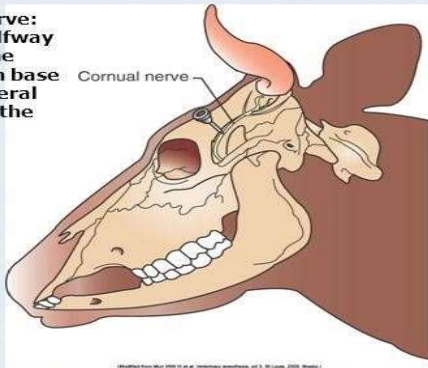


Disbudder

## Surgical Removal

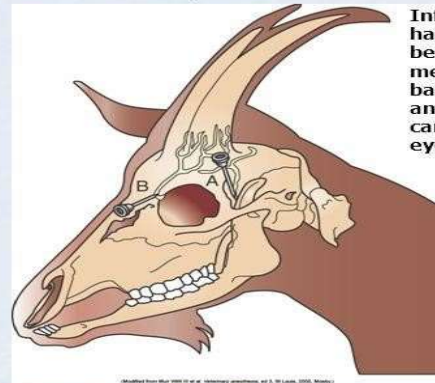
- Dehorning is usually performed on a conscious, sedated animal with local anesthesia for control of pain.

Cornual nerve: blocked halfway between the lateral horn base and the lateral canthus of the eye

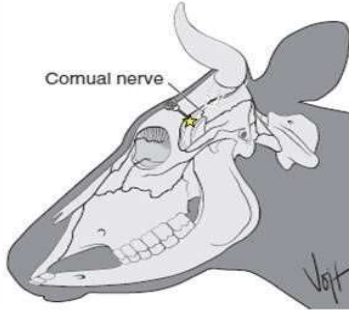
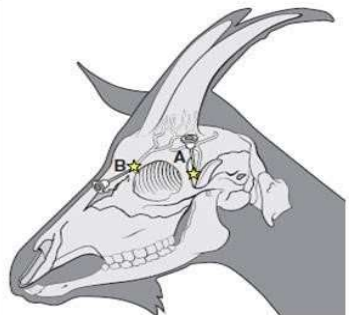


Needle placement for desensitizing the cornual nerve in the bovine. The cornual nerve follows the temporal ridge to the base of the horn

Infratrochlear: halfway between the medial horn base and the medial canthus of the eye



Anesthesia for dehorning in the goat. **A**, Needle placement for desensitizing the cornual branch of the lacrimal nerve. **B**, Needle placement for desensitizing the cornual branch of the infratrochlear nerve

CORNUAL NERVE BLOCK		ADMINISTRATION INFORMATION
<ul style="list-style-type: none"> <li>- Found at the orbit behind the lateral ridge of the frontal bone</li> <li>- Supplies the horn corium and skin around the base of the horn</li> </ul>		
Anatomical Location	Technique	<p>Intra-operative management:</p> <p>Drug; Flunixin Concentration; 50mg/mL Dose Rate: 1.1mL/kg Total Dose: 1.32mL/kg</p> <p>Drug; Lidocaine 2% Dosage: 4mL per injection site Total Dose: 8mL/60kg Lidocaine Toxic Dose: 30mL/kg</p> <p>Administration times:</p> <ul style="list-style-type: none"> <li>- Flunixin @ 2:30 pm (IV) for 30 seconds</li> <li>- Lidocaine @ 2:40pm (SC) for Right cornual nerve block</li> <li>- Lidocaine @ 2:44pm (SC) for Left cornual nerve block</li> </ul>
 <p>Cornual nerve</p>	<p>The cornual nerve branch of the lacrimal nerve is blocked:</p> <ul style="list-style-type: none"> <li>- The anatomical location was palpated, along the saggital crest between the rostral border of the lateral canthus eye and the caudal border of the horn base</li> <li>- Next, a 20 gauge, 1.5 inch needle is inserted SC halfway between the eye and the base of the horn; ½ - ¾" under the frontal process</li> <li>- Aspirate to check that the needle</li> <li>- Then inject the 4 ml of lidocaine 2% in a fan-like manner</li> <li>- Massage the area</li> </ul>	
	<p>Desensitizing of the cornual branch of the lacrimal nerve</p> <p>Desensitizing of the cornual branch of the infratrochlear nerve:</p> <ul style="list-style-type: none"> <li>- The cornual branch of the zygomaticotemporal nerve is desensitized with a 22 gauge, 1 inch needle and 2-3L of lidocaine at the location halfway between the lateral canthus of the eye and the lateral horn base</li> <li>- The infratrochlear branches are desensitized by injecting t to 3mL of lidocaine halfway between the medial canthus of the eye and the medial horn bare dorsal and parallel to the dorsomedial margin of the orbit</li> </ul>	<p>Intra-operative management</p> <p>Xylazine: 0.025 – 0.05mg/kg Butorphanol: 0.05mg/kg Drugs are mixed and given IV or IM</p> <p>Talozaline: Xylazine reversal drug prepared 2(xylazine) dosage</p> <p>Local or regional analgesia: Cornual nerve block; Drug: 1% lidocaine Maximum dose: 10mg/kg Young kids: 1mL of 2% lidocaine between four sites of horn bud</p>

Key: ☆ deposition points of anaesthetic drug



**PERFECT EXAMPLE ON USING THE CALLICRATE BANDER FOR DEHORNING**



**EXAMPLE OF IMPROPER  
TECHNIQUE OF THE CALLICRATE BANDER**