

ANAESTHETICS AND ANALGESICS AT LAMB MARKING

The development of effective and practical anaesthetic and analgesic treatments for lambs has been an important advance in alleviating the pain and distress lambs experience at marking. This factsheet provides growers with information on the available options for alleviating pain associated with mulesing, tail docking and castration.

Why provide anaesthetics and analgesics?

Mulesing and tail docking are husbandry procedures undertaken to improve lifetime welfare of sheep by improving resistance to flystrike. Castration is used to prevent unwanted breeding and aggressive behaviour. These procedures can cause distress for the lamb due to:

- being physically restrained during the lamb marking process
- being separated from their dam
- the immediate pain of the procedure
- the longer-term pain and discomfort associated with inflammation of the wound, which can last for days.

Haemorrhage and post-surgical infection of the wound are also important animal welfare concerns. However, research has shown that the pain experienced by lambs at marking can be reduced or alleviated with the appropriate use of anaesthetics and analgesics available for use on sheep.

What anaesthetics and analgesics are available for pain relief at marking?

There are two different types of pain relief available for alleviating pain from mulesing, tail docking and/or castration. These are the fast acting, short-lasting local anaesthetic products, and the slow acting, longer-lasting analgesic products.

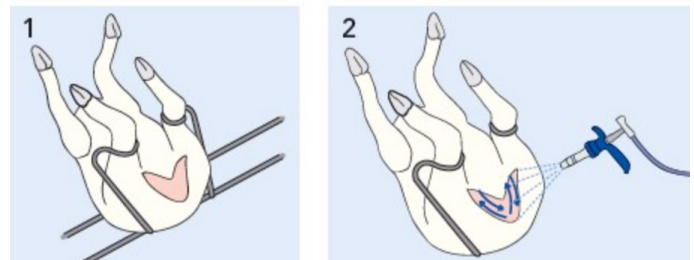
Fast acting, short lasting anaesthetics

Local anaesthetics block pain so sensory function of the area is lost. There are currently two local anaesthetic products available for use at lamb marking, **Tri-Solfen®** and **NumOcaine®**.

Tri-Solfen® is a topical pain relief and antiseptic solution that contains:

- **Two local anaesthetics**, for immediate and longer-lasting pain relief.
- **Adrenaline**, to reduce blood supply to the area, reducing blood loss.
- An **antiseptic**, reducing the risk of infection to the open wound.

Tri-Solfen® is applied as a gel spray directly onto the open wound (such as the mulesing wound, tail stump or inside the scrotum) and provides pain relief within one minute that lasts up to 24 hours. It also works to seal and protect the wound, reducing the risk of infection and assisting with healing.



Apply **Tri-Solfen®** immediately after completing the surgical procedure.

Apply **Tri-Solfen®** as a series of stripes up and down the wound for full coverage of the wound and tail.

Tri-Solfen® needs to be sprayed onto open wounds to work and **DOES NOT** provide pain relief for rings.



Numnuts® device for administering **NumOcaine®** during ring castration and tail docking.

Slower acting, longer-lasting analgesics

Meloxicam, a non-steroidal anti-inflammatory drug (NSAID), is registered for use as both an injectable product and for oral application.



Products like **Buccalgesic®** administer the dose of **meloxicam** orally as a viscous paste, inside the mouth between the gums and cheek, with no needle required.



Products like **Metacam® 20** administer **meloxicam** as a subcutaneous injection high on the neck behind the ear.

Products with **meloxicam** alleviate pain and reduce inflammation, fever and fluid production caused by tissue damage. These analgesic products are slower-acting than local anaesthetics but provide longer-lasting pain relief. When it comes to lamb marking these products can be used for mulesing, surgical castration, hot or cold knife tail docking, and castration and tail docking with rings.

There are a number of different injectable and oral application **meloxicam** products available for sheep with different brand names. We suggest you talk to your vet about your options. The combination of both **Tri-Solfen®** (for use with open wounds) or **NumOcaine®** (for use with rings) and a **meloxicam** product provides the most effective pain relief and gives the lamb the best chance of recovering faster. This addresses both the immediate pain and any pain that might occur during the healing process, as well as reducing the possibility of infection.

When deciding the best option for providing anaesthetics or analgesics to your lambs for lamb marking it is recommended you consult your vet as there are many variables and factors to consider. It is also important to remember that drugs used for lamb marking, whether prescribed or over the counter, may have meat withhold periods (WHP) associated with their use.

The welfare of lambs is underpinned by the Australian Animal Welfare Standards and Guidelines for Sheep.

These Standards and Guidelines are the legal requirements for the welfare of sheep. They have been endorsed federally, by all states. More information on the Standards and Guidelines can be found at: animalwelfarestandards.net.au/sheep

It also recommended you are aware of your State's regulations, as every state may have different pain relief requirements for sheep.

Further information

Further information on best practice mulesing techniques is available at www.wool.com/flystrike/latest, including:

- [Plan Prepare Conduct Best Practice Lamb Marking Training Guide](#)
- [Analgesia and anaesthesia](#)

Action	Application	WHP	Mulesing	Tail docking with knife/hot knife	Castration with knife	Tail docking with rings	Castration with rings
Short acting local anaesthetic e.g. Tri-Solfen®	Fan spray application to the wound (effective in less than 1 min)	90 days	✓	✓	✓	✗	✗
Short acting local anaesthetic e.g. NumOcaine®	Injection with Numnuts® device (effective in less than 1 min)	0 days	✗	✗	✗	✓	✓
Longer-acting analgesic e.g., Buccalgesic® and Butec Buccal Gel®	Oral with custom applicator – gel applied inside the cheek (effective from 15 mins)	10 days	✓	✓	✓	✓	✓
Longer-acting analgesic injectable Meloxicam, e.g Metacam®20	Subcutaneous injection into muscle high on neck (effective from 10 mins)	11 days	✓	✓	✓	✓	✓

Growers must follow all label directions and veterinary instructions when using pain relief products. Injectable meloxicam products are Section 4 (S4) veterinary medications and require consultation with your local vet. Buccalgesic® can be purchased from your local vet. Butec Buccal Gel® is available over the counter from your local reseller. Tri-Solfen® and NumOcaine® (Numnuts® delivery) are both available over the counter from your local reseller or your local vet, and NumOcaine® is also available to buy directly online from Numnuts.