



GUIDE TO THE CORRECT USE OF PAIN RELIEF IN THE GRASS-FED BEEF CATTLE SECTOR

5 June 2020

This document has been prepared by Cattle Council of Australia Ltd as a reference for grass-fed beef cattle producers to guide the responsible use of pain-relief compounds.

The information contained in this document does not constitute advice and in no way replaces advice from a veterinary practitioner. In preparing to use pain-relief compounds on cattle, producers are urged to consult with a veterinarian.

Having a bona fide, professional relationship with a cattle veterinarian is a legal requirement for a producer to be granted access to Schedule 4 (S4) pain-relief compounds.

Other points to note:

1. Use of pain relief is advised for routine, aversive cattle-husbandry procedures including disbudding/dehorning, castration, spaying, branding, tattooing and ear notching.
2. Pain-relief compounds are now relatively available for lay operators, noting many require veterinary prescription.
3. Producers are encouraged to replace surgical procedures with non-surgical replacements if available. Examples include breeding for polled cattle to replace dehorning; using electronic forms of identification to replace branding (where allowed); and using immuno-contraception if available and practical to replace castration and spaying.
4. Use of pain relief must not replace good animal welfare practice as described in the Animal Welfare Standards and Guidelines for Cattle.



Table 1 – Procedures and pain types

PROCEDURE	LIKELY PAIN TYPE	PAIN-RELIEF OPTIONS (see Table 2 for details)
Disbudding/dehorning	<ul style="list-style-type: none"> • Immediate (Phasic), due to nerve damage at the site of injury AND • Inflammatory (Tonic), slightly slower onset, longer duration AND • Long-lasting (Chronic) (< 6 weeks), inflammatory or neuropathic 	<ul style="list-style-type: none"> • Multi-modal using local anaesthetic PLUS longer-acting Non-Steroidal Anti-inflammatory Drugs (NSAIDs)¹ • if using Tri-solfen® as the local anaesthetic, ensure proper adhesion of the spray to the wound
Castration/spaying	<ul style="list-style-type: none"> • Immediate (Phasic), due to nerve damage at the site of injury AND • Inflammatory (Tonic), slightly slower onset, longer duration AND • Long-lasting (Chronic) (< 6 weeks), inflammatory or neuropathic 	<ul style="list-style-type: none"> • Multi-modal using local anaesthetic PLUS longer-acting NSAID • Tri-solfen® is only registered for disbudding and castration of calves and dehorning of cattle and must not be used internally (e.g., when spaying using the dropped ovary technique)
Fire branding	<ul style="list-style-type: none"> • Immediate (Phasic), due to nerve damage at the site of injury AND • Inflammatory (Tonic), slightly slower onset, longer duration 	<ul style="list-style-type: none"> • NSAID • If done at marking, would be covered by the NSAID administered for other procedures
Freeze branding	<ul style="list-style-type: none"> • Inflammatory (Tonic), slightly slower onset, longer duration 	<ul style="list-style-type: none"> • NSAID • If done at marking, would be covered by the NSAID administered for other procedures
Ear notching and tattooing	<ul style="list-style-type: none"> • Immediate (Phasic), due to nerve damage at the site of injury • Inflammatory (Tonic), slightly slower onset, longer duration 	<ul style="list-style-type: none"> • NSAID • If done at marking, would be covered by the NSAID administered for other procedures
Ear tagging	<ul style="list-style-type: none"> • Immediate (Phasic), due to nerve damage at the site of injury 	<ul style="list-style-type: none"> • NSAID • If done at marking, would be covered by the NSAID administered for other procedures

¹ NSAIDs are analgesics that reduce pain by suppressing inflammation. They do not totally block (anaesthetise) pain.



Table 2 – Summary table of pain-relief products

PAIN RELIEF OPTIONS²	SOURCE	WHP/ESI³	INDICATIVE COST⁴	COMMENTS
Local anaesthetic <ul style="list-style-type: none"> • <u>Tri-Solfen</u>⁵ for open-wound spray-on (after the injury) 	S5 Over the counter	WHP 90 days ESI 90 days	\$2.30 plus GST Depends on number of sites treated	<ul style="list-style-type: none"> • Depletion trials have not been done so default WHP and ESI of 90 days apply • Topical spray contains anaesthetic to reduce pain and adrenaline to reduce blood loss • Almost-immediate effect • 24-hour relief
Local anaesthetic <ul style="list-style-type: none"> • <u>Lignocaine</u> for nerve block injection(s) (before the procedure) 	S4 Vet only	WHP nil ESI not established	Highly variable, depends on vet's costs, type of procedure, retail mark-up, etc.	<ul style="list-style-type: none"> • Almost-immediate effect • Residue depletion work yet to be done • Must be administered by a veterinarian
Non-Steroidal Anti-inflammatory Drugs (NSAIDs) ⁶ – 33 in total, as follows: <ul style="list-style-type: none"> • <u>Meloxicam</u> Buccalgesic® (cheek pouch gel) and Metacam® (injection), +10 other registered products • <u>Flunixin</u> (13 registered products) • <u>Ketoprofen</u> (5 registered products) • <u>Tolfenamic acid</u> (3 registered products) 	S4 Vet prescription	WHP 11-14 days ESI 17-21 days Products vary – read the label and seek veterinary advice	Buccalgesic®, \$4.30 plus GST Metacam®, \$5.50-6.50 plus GST Others?	<ul style="list-style-type: none"> • 10-15 minutes to take effect • Effective 1-8 hours (pain relief benefits up to 3 days) • Prescription remedies – available from/through veterinarians⁷ • Some label claims are procedure-specific • Buccalgesic® is administered as a gel into the cheek cavity – more suitable for young cattle • Metacam® is applied as a subcutaneous injection • Can be given before or during the procedure • NSAIDs do not lead to anaesthesia (loss of feeling)

² Registered for dehorning of cattle and disbudding and castration of calves.

³ For the beef industry, most pain relief would be administered to calves at marking, meaning WHPs and ESIs may have little relevance if the calves are retained for grow-out. However, risks of non-compliance rise significantly when treating weaners, vealers and adult cattle, particularly when the animals are being grown for the local or overseas slaughter market.

⁴ Calculated on a 160-200kg weaner using recommended doses. Subject to change.

⁵ Tri-Solfen® contains lignocaine (40.6 g/L), bupivacaine (4.2 g/L), cetrimide (5 g/L) and adrenaline (24.8 mg/L) in a gel base and is applied to wound surfaces during or immediately following painful procedures, using a spray applicator, where it is absorbed at the site of injury for provision of local anaesthesia and enhanced wound healing

⁶ NSAIDs are analgesics that reduce pain by suppressing inflammation. They do not totally block (anaesthetise) pain.

⁷ It is important for lay operators to develop a business relationship with local vets, providing the vet with a high level of confidence regarding responsible use of the product.