



# *A woolly* **TOPIC**

By Jackie Harrigan

As buyers of wool start to demand higher welfare standards, sheep farmers and veterinarians are faced with the ongoing challenge of providing suitable and practical pain relief for procedures such as castration and tail docking.

**P**ain management in sheep remains difficult for veterinarians. While castration and tail docking are longstanding farming practices that aim to improve flock management and health, both have been shown to elicit pain responses. Providing suitable – and practical – pain relief, particularly for tail docking, is an ongoing challenge.

At the same time, consumer demand for high welfare standards is increasing. For example, buyers of New Zealand high-end textiles have started to demand pain relief is used to meet standards for Merino wool, and from June this year all farmers who supply the New Zealand Merino Company (NZM) with wool through their ZQ contracts (ZQ is a wool certification standard) now have to administer suitable pain relief for castration and tail docking.

With such a complex environment, veterinarians are increasingly finding themselves asked to bridge the gap between what is possible in theory, what is practical on farm, and what is required by regulation and international standards.

#### **What does the code say?**

The Code of Welfare: Sheep and Beef Cattle (2018) states that if the sheep is under six months of age, tail docking without pain relief is permitted, but only using a hot iron or rubber ring. If the sheep is six months or older, the procedure must be performed by a veterinarian (or veterinary student under veterinary supervision), and the sheep *must* be given pain relief at the time of the procedure.

Likewise, for castration, if the sheep is over six months of age, it must be under the influence of pain relief throughout the procedure and that pain relief must be authorised by a veterinarian. If using a high-tension band for castration (at any age), the procedure must include pain relief authorised by a veterinarian.

However, the code is under review and the National Animal Welfare Advisory Committee (NAWAC) has indicated that changes will be coming. These proposed changes would make pain relief recommended best practice for sheep tail docking and castration – regardless of age.

Kat Littlewood, registered veterinary specialist in animal welfare science, ethics, and law, from AkoVet, is a member of NAWAC.

“Lambs undergoing castration and tail docking are subject to pain levels that should be mitigated to meet animal welfare standards, and NAWAC has recently consulted on whether pain relief should be made mandatory for sheep tail docking and castration, regardless of age,” she says.

#### **Pain-relief prescribing practices**

Many veterinarians are already prescribing pain relief for painful husbandry practices. A recent survey on pain management in lambs conducted by the Sheep and Beef Cattle branch gathered responses from 37 veterinarians (with some industry respondents) on their prescribing practices, product preferences, training, safety concerns, and professional views on pain relief for lamb castration and tail docking.

The survey found that 66% of veterinarians prescribed pain relief for some or all of their clients for lamb castration, while 69% did the same for tail docking. It also discovered that, for castration, 20% of veterinarians had a standard prescription protocol, and another 20% were developing one. For tail docking, this was 14% and 23%, respectively.

A different survey – this one conducted with farmers in 2022 by Kavitha Kongara, Senior Lecturer in Veterinary Anatomy, and others at Massey’s School of Veterinary Science Tāwharau Ora and School of Agriculture and Environment Te Kura Mātauranga mō Ahuwhenua me Te Taiao – found

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that very few New Zealand farmers provide pain relief during docking or castration (Kongara et al., 2023a).

Among 432 respondents, 32% strongly agreed castration does not cause sufficient pain to warrant pain relief, while 41.7% thought the same about tail docking.

However, because of the NZM pain relief requirements, there has been a large shift in industry practice since this survey was undertaken in 2022, and the results would likely be very different if the survey was conducted today.

#### Limited pain relief options

The Sheep and Beef Cattle Branch survey highlighted the challenges associated with providing effective pain relief in sheep. Veterinarians know that local anaesthetics can provide acute pain relief when administered correctly, but there are practical difficulties in delivering them effectively during tail docking. As a result, local anaesthesia may not always achieve the intended level of pain relief in this context. Veterinarians also recognise that non-steroidal anti-inflammatory drugs (NSAIDs) do not provide acute pain relief, and therefore are not suitable as the sole method of analgesia for such procedures if the goal is to be pain free.

This, says Sara Sutherland, is the main issue. Sara, a Wairarapa veterinarian, Member of the Australian and New

Zealand College of Veterinary Science in Sheep Health and a member of the NZVA's Sheep and Beef Cattle Veterinarians branch, says that while local anaesthetic injections, such as lignocaine, are effective for castration if used properly, there is currently no product for tail docking that is effective enough and fast enough to work in the field, and that can be scaled to be used efficiently in New Zealand.

"Nobody is saying farmers shouldn't be using pain relief, and both veterinarians and farmers want to reduce pain," says Sara. "But if you are making it mandatory, it has to be effective, safe and scalable."

"The tail nerves are complex and diffuse, and while a ring block could be applied to ensure local anaesthesia is fully effective, it is difficult to perform, takes time to work and there are risks with safety and toxicity," says Sara. "It is not scalable for docking 10,000 lambs each day."

"We know the pain from tail docking with a hot iron, which is used in most cases, is a lot less painful by orders of magnitude than pain from castration. We're not saying there is no pain or that we shouldn't be using pain relief, but there currently aren't any products available that fit the bill."

Sara's view aligns with that of the NZVA, which released a position statement on the matter in February this year. While the NZVA believes that tail docking and castration of lambs is a painful procedure and recommends using effective and appropriate analgesia, it states: "Should practical and economic methods of providing acute pain relief for tail docking become available, it is recommended that these methods should be utilised. Further research is required to address acute pain mitigation associated with tail docking and short scrotum procedures."

“My opinion and also that of the NZVA is that we should not have mandatory pain relief for tail docking until we have something that we know is effective and safe,” says Sara.

### What about NSAIDs?

The NSAID meloxicam is available for use in sheep – in fact, injectable meloxicam was the most popular pain relief for tail docking used by veterinarians in the Sheep and Beef Cattle branch survey (82%), although many were uncertain about its efficacy. Transbuccal meloxicam is also available. Meloxicam takes time to reach peak activity, so application at castration or tailing will not control immediate acute pain, but research shows that it does improve some pain behaviours over a longer period of time (Small et al., 2014; Kells et al., 2020).

Owing to its delayed onset, the NZVA guidelines recommend that meloxicam should not be used as the sole method of pain relief during castration. There are also practical concerns about overdosing or underdosing, and anecdotal evidence of adverse events in lambs. Some studies have shown that meloxicam use decreases growth rates in lambs (Kongara et al., 2023b).

Survey respondents also voiced concerns – only 34% thought that injectable NSAIDs were safe, citing concerns for renal toxicity in young lambs and dose variability in mobs.

According to the Ministry for Primary Industries Agricultural Compounds and Veterinary Medicines (ACVM) team, since 2023 there have been five adverse event reports related to meloxicam use in lambs. The ACVM recently released a statement on meloxicam, advising that it is critical for veterinarians and clients to remain vigilant about proper administration and monitoring for adverse events, particularly as the use of the NSAID becomes more widespread.

Sara agrees. “There are certainly some gaps in the knowledge of NSAID use with lambs,” she says. “Veterinarians need to be aware of this and report any adverse events that might occur.”

The NZVA has some resources on adverse event reporting available on its website. In addition, VetPath NZ (formerly SVS Laboratories) is offering free urea and creatinine testing on lambs at docking (see more information top right).

### Animal welfare or compliance?

NZM’s requirement for its suppliers to use pain relief is being driven by international standards set by the Textile Exchange, a not-for-profit organisation that sets ethical and environmental standards for fibres and raw materials in the fashion and textile industry, such as cotton and wool. NZM is the biggest supplier of that wool, putting New Zealand in the spotlight.

The Textile Exchange standard states that for all methods of castration and tail docking: “pain relief shall be applied when suitable pain relief is available”.

Ōamaru veterinarian Dave Robertson works with the company’s farmer suppliers and has surveyed many of them

## LAMB BLOOD SAMPLING

VetPath NZ (formerly SVS Laboratories) is offering free urea and creatinine testing on lambs at docking for those already submitting serum samples for other tests, such as B12 or selenium. The purpose of this testing is to help establish a reference range for normal urea and creatinine levels in lambs of this age, which will be valuable in assessing whether treatment with NSAIDs affects liver or kidney function. This data will also provide baseline information to investigate adverse events related to NSAID use. For more information, visit <https://nzva.org.nz/about-us/branches/sb/svs-study>.

on using pain relief. He produced a research paper to inform the NZVA’s position statement.

“The big question here is what is suitable, and in the end, it really comes down to the why,” he says. “Is the pain relief for animal welfare or is it for compliance?”

In a recent NZVA webinar, *Pain relief in practice – options, insights, and adverse event reporting for lambs at tail docking and castration*, Dave also points out that the topic has brought into question veterinarians’ autonomy to prescribe drugs. “We are almost getting directed by overseas bodies to prescribe pharmaceuticals to farm animals when we perhaps wouldn’t have in the first place,” he said.

He says that castration with local anaesthetic is being accepted and used by many Merino farmers.

“They find it’s simple and cheap and helps with the pain, which has been shown to be far more significant than any pain related to tail removal,” says Dave.

“There is currently no suitable pain relief option to address the acute pain of tail docking.”

### New products in the pipeline

Sara says a couple of products are under review by the ACVM team, including a US-licensed Lidoband product (used for both castration and tail docking) that diffuses anaesthetic from the ring. She adds that licensing may happen for Australia in late 2025 and New Zealand in 2026.

“We still don’t know whether it provides meaningful relief quickly enough or whether it takes time to diffuse out of the ring,” says Sara.

**ClipFitter**, a product used in the UK for castration and tail removal that causes less pain than rubber rings, may also reach New Zealand, but the legislation would need to be rewritten, as currently only rubber rings or hot irons are approved methods.

#### The veterinarian's role

Cristin Dwyer, Head of Veterinary Services – Large Animal at the NZVA, says that prescribing pain relief for lambs is not simply a matter of product choice. “It also requires clear communication and consent from clients,” she says.

Veterinarians are responsible for ensuring that clients:

- » understand the options available for pain relief (local anaesthetic, NSAIDs, or combination protocols), including their strengths and limitations

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- » are trained and competent in administering restricted veterinary medicines correctly

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- » dose appropriately for weight, avoiding under or overdosing, which can compromise efficacy or safety

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- » prepare and manage lambs properly at tailing, ensuring the lambs are healthy and hydrated and stress is minimised to reduce the risk of adverse outcomes

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- » recognise adverse events – clients should know what to look for (eg, lethargy, inappetence, collapse, unusual deaths in the mob) and how to respond.

Clients should contact the veterinarian immediately if an adverse outcome is suspected so investigations can begin promptly, samples collected, and reports lodged.

“Informed consent is more than telling clients what product to use,” says Cristin. “It’s about ensuring they understand how to use it safely, what risks exist, and what steps to take if things go wrong.”

#### Where to from here?

Kat believes pain can be mitigated with a mix of local anaesthetic and NSAIDs and there are long-term benefits, but systems and procedures will need to be redesigned before using them.

“Veterinarians have an important role to play in deciding and facilitating the direction of treatment, endorsing new protocols and training practitioners, and working with

third-party auditors. We have a good opportunity to lead this pivotal role in navigating the coming policy changes and how they will work practically.”

Sarah emphasises that the issue is not going to go away, and that the area is constantly evolving.

“As more research investment is put into animal welfare, hopefully that will trickle down into much-needed practical solutions for veterinarians and farmers on the ground.” <sup>19</sup>

## REFERENCES AND RESOURCES

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