



# THE BROKEN PROMISE

The Australian wool industry's failure to end live lamb cutting (mulesing), and why governments must step in.



**HUMANE SOCIETY  
INTERNATIONAL**  
AUSTRALIA



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## Acknowledgements

This report was written in 2024 and is a joint initiative of FOUR PAWS, Humane Society International Australia, and the Australian Alliance for Animals.

## About FOUR PAWS

FOUR PAWS is the global animal welfare organisation for animals under direct human influence, which reveals suffering, rescues animals in need and protects them. Founded in 1988 in Vienna by Heli Dungler and friends, the organisation advocates for a world where humans treat animals with respect, empathy and understanding. The sustainable campaigns and projects of FOUR PAWS focus on companion animals including stray dogs and cats, farm animals and wild animals such as bears, big cats and orangutans – kept in inappropriate conditions as well as in disaster and conflict zones. With offices in Australia, Austria, Belgium, Bulgaria, France, Germany, Kosovo, the Netherlands, Switzerland, South Africa, Thailand, Ukraine, the UK, the USA and Vietnam as well as sanctuaries for rescued animals in eleven countries, FOUR PAWS provides rapid help and long-term solutions. [www.four-paws.org](http://www.four-paws.org)

## About Humane Society International Australia

Humane Society International (HSI) is one of the world's leading animal protection organisations and HSI Australia established our office in 1994. We work to create a humane and sustainable world for animals advocating across wildlife conservation and animal welfare policy areas. [www.hsi.org.au](http://www.hsi.org.au)

## About the Australian Alliance for Animals

The Australian Alliance for Animals is a national charity leading a strategic alliance of Australia's key animal protection organisations to create systemic change for animals. Through our programmes, we lead law and policy reform, ensure transparency and accountability, and bring our members and allies together to strengthen the representation of animals. Core members include Animals Australia, Humane Society International Australia, World Animal Protection Australia, Compassion in World Farming, FOUR PAWS Australia, and Voiceless, the animal protection institute.

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# Glossary

<b>Breech</b>	Rear end of a sheep around the rectum and vulva, extending part way down the back of the hind legs.
<b>Breech cover</b>	The amount of natural bare skin around a sheep's perineum and breech area.
<b>Breech wrinkle</b>	The degree of wrinkle at the tail set, sides of the tail (bat wings), adjacent to the anus/vulva and down the hind legs.
<b>Ceased mulesing (CM)</b>	Defined in the National Wool Declaration as 'No lambs born on this property in the last 12 months have been mulesed. No mulesed (or mulesed with pre- and/or post-analgesic/anaesthetic) ewes/wethers have been purchased.'
<b>Crutching</b>	Periodic shearing around a sheep's tail and back of legs.
<b>Dag</b>	Faecal material adhering to wool around the sheep's breech and hind legs.
<b>Drenching</b>	Liquid delivered by mouth to kill internal parasites in sheep.
<b>Dual-purpose Merino</b>	Sheep bred for both wool and meat.
<b>Ewe</b>	Female sheep.
<b>Flystrike (myiasis)</b>	A condition caused by blowfly maggots feeding on the flesh of a live sheep.
<b>Jetting</b>	Insecticide externally applied to sheep to control flystrike or louse infestations.
<b>Lamb marking</b>	Procedures including tail docking, castration of males, ear marking, ear tagging, vaccination and insecticide application.
<b>Lambing percentage</b>	Number of lambs produced per one hundred ewes mated in a flock.
<b>Live lamb cutting</b>	A surgical procedure that involves cutting skin folds away from the breech area of lambs, typically using shears. It is undertaken to prevent flystrike. This practice is also known as 'mulesing.' Live lamb cutting does not include tail docking, castration or other practices where lambs are cut.
<b>Livestock consultant</b>	Agricultural professionals who advise wool producers on productivity needs, including how they can transition to live lamb cutting-free wool enterprises.
<b>Micron</b>	1000th of a millimetre used to measure wool fibre diameter.
<b>Mulesing</b>	A surgical procedure that involves cutting skin folds away from the breech area of lambs, typically using shears. This practice is also known as 'live lamb cutting'.

<b>Mulesed (M)</b>	Defined in the National Wool Declaration as 'Some/all sheep in this mob have been mulesed.'
<b>National Wool Declaration (NWD)</b>	Australian standardised method for declaring wool Non-Mulesed (NM), Ceased Mulesing (CM) etcetera.
<b>Non Mulesed (NM)</b>	Defined in the National Wool Declaration as 'No sheep in this mob has been mulesed.'
<b>Plain-bodied Merino</b>	Merino Sheep with a wrinkle score of two or less (no or slight skin wrinkling).
<b>Ram</b>	Uncastrated male sheep.
<b>Selective breeding</b>	Breeding for desirable traits such as low body wrinkle, dag score and breech cover.
<b>SRS® 'Soft Rolling Skin'</b>	A breeding system, developed by Dr Jim Watts, in which Merino sheep are bred to be non-wrinkled and plain-bodied. This makes them naturally resistant to flystrike.
<b>Steining</b>	The use of liquid nitrogen to freeze a sheep's breech skin to create a plainer breech.
<b>Wether</b>	Castrated male sheep.

## Acronyms

<b>AVA</b>	Australian Veterinary Association
<b>AWI</b>	Australian Wool Innovation Ltd
<b>ASWGA</b>	Australian Superfine Woolgrowers Association
<b>WA DPIRD</b>	Western Australian Department of Primary Industries and Regional Development
<b>MLA</b>	Meat & Livestock Australia
<b>NRF</b>	National Retail Federation
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>WPA</b>	WoolProducers Australia

# Executive summary

Australia is one of the world's largest wool producers. With an estimated 368 million kilograms produced every year, Australia contributes 70 per cent of the apparel wool used by the global fashion industry and 81 per cent of the world's superfine wool.

But the country's strong reputation is greatly tarnished by the practice of live lamb cutting (also known as mulesing). First practiced in the 1920s, live lamb cutting involves restraining young lambs, usually 2–12 weeks of age, on their backs in a metal cradle. Shears are then used to cut skin and flesh off the lamb's hindquarters to create a wound that will develop smooth scar tissue and reduce the risk of flystrike. Lambs are routinely given inadequate, and often no, pain relief.

Twenty years ago, in response to the threat of retailer boycotts, Australian wool industry leaders unanimously committed to ending live lamb cutting in Australia by December 2010. This 2004 announcement was welcomed by consumers, animal welfare advocates, brands and retailers in Australia and around the world. But, in 2009, just one year out from their deadline, the industry abandoned the commitment altogether. This broken promise has had significant welfare implications for Australian sheep and Australia's international reputation. An estimated 140 million lambs have been subjected to the practice since the deadline, and the industry has failed the Australian public and international consumers who expect better for Australian sheep.

Wool producers and scientists have made important advances in the past century to improve the quality and quantity of wool produced, and Australia has the potential to lead animal welfare advances in the sector. But, for decades now, industry peak bodies, and many wool producers, have persisted with, and supported, outdated breeding practices resulting in Merino sheep with

unfavourable physical traits, such as excess skin (known as a high wrinkle score) and high dag score. As a result of being bred with these characteristics, many of Australia's Merino sheep are highly susceptible to flystrike.

Flystrike is an extremely painful condition which occurs when blowflies (most often *Lucilia cuprina*) lay their eggs within a sheep's skin folds, primarily around the hind-quarters. Once hatched, the larvae feed on the sheep's skin and underlying tissues which causes significant pain and, in severe cases, death. Sheep with a high wrinkle score are far more susceptible to flystrike. Flystrike costs the Australian wool industry an estimated \$323 million every year in treatment, prevention and production losses.

**The solution is transitioning to utilising flystrike resistant sheep types, and ensuring adequate husbandry.**

For decades now, wool producers have successfully bred naturally flystrike-resistant flocks by selectively breeding plain-bodied sheep with low wrinkle scores, low dag scores and other favourable characteristics. Despite this, peak bodies in the wool industry have been slow to back this solution, and many producers continue to breed high risk sheep and then use live lamb cutting to reduce this risk.

It would have been entirely possible for the wool industry to honour their commitment to end live lamb cutting had the phase-out period they set twenty years ago been used to transition to flystrike-resistant sheep. But, as the phase-out deadline of December 2010 approached, rather than transition to flystrike-resistant sheep, many wool producers continued to breed sheep with characteristics that made them highly vulnerable to flystrike.

**The sector failed to achieve the promised 2010 phase-out because, quite simply, it failed to act.**

Around 52 per cent of woolgrowers still practice live lamb cutting and it is estimated that more than 140 million lambs have been subjected to the practice since the phase-out was due to take effect. Many years and large sums of money have been wasted looking for alternative solutions to mitigate flystrike when a viable one was already available.

Australian producers who voluntarily transitioned to fly-strike-resistant Merinos are reaping the rewards of better animal welfare and productivity plus a premium paid for their wool. However, as demand for 'non-mulesed' wool increases, some international buyers are looking to other wool producing nations to find wool that meets a welfare standard that they, and their consumers, expect.

Australia is currently the only country in the world where live lamb cutting is known to occur, and it is time for this century-old practice to be replaced with the effective fly-strike mitigation solutions available today.

The wool industry's peak bodies have clearly and consistently demonstrated their inability to lead a phase-out of live lamb cutting. These peak bodies are heavily influenced by wool producers who continue to practice live lamb cutting and show no signs of stopping the practice. These vested interests mean that a phase-out has not been led by the industry, and it is highly unlikely that it ever will be.

With a proven, higher welfare alternative offering lifelong and whole-body protection against flystrike and a clear pathway to transition, there is simply no justifiable reason to continue the outdated, unethical and unnecessary practice of live lamb cutting. It is time for Australian federal, state and territory governments to step in and provide this missing leadership and mandate a phase-out of live lamb cutting by 2030.



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# Introduction

Australia is one of the world's largest wool producers<sup>1</sup>, contributing 70 per cent of the apparel wool used by the global fashion industry.<sup>2</sup> It also produces the finest luxury wool and accounts for 81 per cent of the world's superfine wool.<sup>3</sup> Australian wool producers take great pride in the wool they produce, and it is used to manufacture luxury garments, knitwear, 'next-to-skin' wear and other clothing, carpet and upholstery products around the globe. Almost all Australian wool is exported, and wool represents one of the country's most valuable agricultural exports.<sup>4</sup>



**\$3.2 billion:**  
the value of Australia's  
wool exports in 2022–23<sup>5</sup>



**368 million kilograms**  
of Australian wool  
produced every year



**18 per cent**  
of the world's wool supplied by  
Australia and used in carpet,  
insulation, clothing and more



**70 per cent**  
of the world's apparel wool  
comes from Australia<sup>2</sup>

Like most industries, the Merino wool industry seeks to continually improve productivity, maximising both the quantity and quality of fleece that can be obtained from a flock. In many instances these productivity-enhancing measures, such as better nutrition and protection from predators, have animal health and welfare benefits. But this is not always the case.

Merino sheep originally had smooth skin.<sup>6</sup> However, in the 1880s, Australian producers began selectively breeding sheep with excessive amounts of skin, transitioning from plain-bodied to wrinkled sheep, in the belief that more wool could be harvested from sheep with more skin. The breeding of wrinkled sheep continued in spite of evidence obtained as far back as 1931<sup>7,8</sup> that showed that plain-bodied Merinos do not necessarily produce less wool.



## Wrinkle score & flystrike

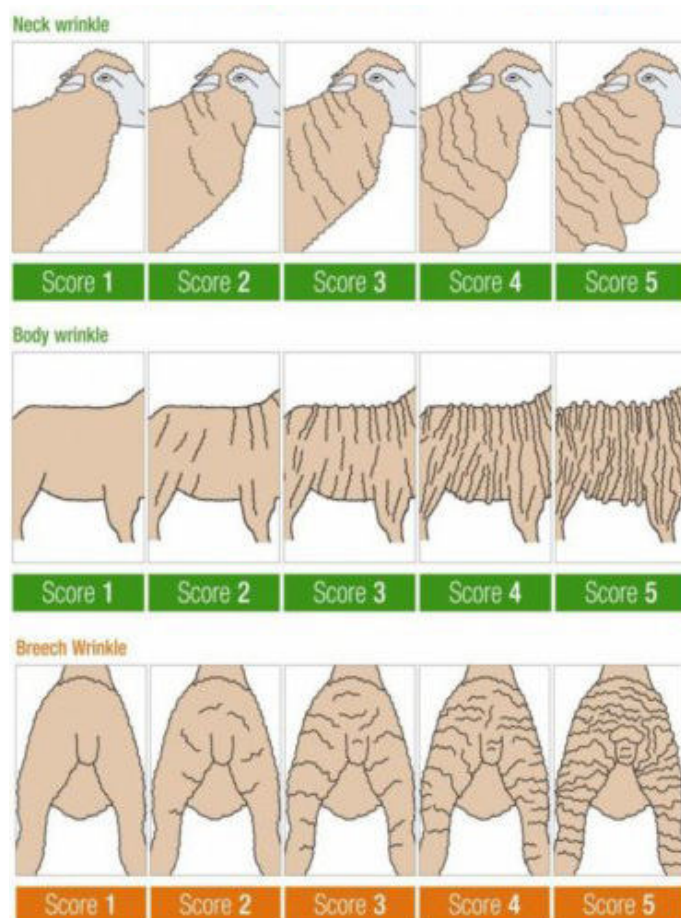
The body wrinkle score measures the prevalence of skin folds or wrinkles on a sheep's body. A sheep with a score of one has a plain body and no wrinkles. A sheep with a score of five has extensive wrinkles and heavy folds of skin over its entire body.<sup>9</sup> See images opposite.

The breech wrinkle score measures the prevalence of skin folds or wrinkles on a sheep's breech. A sheep with a score of one has no wrinkles. A sheep with a score of five has extensive wrinkles at and around the tail and down the hind legs.<sup>9</sup>

**According to Meat & Livestock Australia, sheep with a wrinkle score of two or less are considered 'plain-bodied.'**

The deliberate move from 'plain-bodied' to 'wrinkled' sheep increased the risk of flystrike.

By selectively breeding sheep for excess skin, Australian wool producers put sheep at a greater risk of flystrike. The skin folds on these wrinkled sheep, particularly around the tail and breech area, can trap urine and faeces which then attract blowflies. These sheep are particularly vulnerable to flystrike,<sup>10,11,12</sup> an extremely painful condition which occurs when blowflies (most often *Lucilia cuprina*) lay their eggs within these folds, primarily around the sheep's hindquarters. Once hatched, the larvae feed on the sheep's skin and underlying tissues, which causes significant pain and, in severe cases, death.



Visual sheep wrinkle scores (source: Flyboss)

“It is well established from both research and everyday observation that heavily wrinkled sheep are much more likely to be struck, if for no other reason than the retention of skin moisture within the wrinkles.”

— Andrew Greenwood, Principal, Eildon Springs Superfine and Fine Wool Merino Stud<sup>9</sup>

“The wrinkles in the skin trap moisture from rain or urine, and that causes fleece rot that gives off a smell that attracts the flies.”

— Norm Smith, wool producer<sup>13</sup>

There is no question that flystrike causes significant suffering to Australian sheep and must be addressed. Wool producers, animal welfare advocates and the corporate sector all agree that sheep must be protected from flystrike. It causes serious and prolonged animal suffering and, in 2022, was estimated to have an annual economic cost of \$323.7 million.<sup>14</sup>

“This is totally a human-created problem. If we caused it, we can fix it.”

— Dr Jim Watts, veterinarian and developer of Soft Rolling Skin<sup>®</sup> or SRS<sup>®</sup> genetic breeding programme<sup>15</sup>

This is a problem that was largely created by selectively breeding wrinkled sheep. The links between wrinkly sheep and susceptibility to flystrike have been known for around 100 years.<sup>8</sup> Despite this, the Australian wool industry has continued to breed wrinkly sheep at risk of flystrike. To mitigate the risk, they have then cut large pieces of skin off lambs' hindquarters so that the resulting scar tissue makes it harder for flies to lay their eggs.

## Why 'live lamb cutting (mulesing)' is a problem for lambs

**A**

Live lamb cutting causes intense **pain** which can last for several days and leaves a wound that takes weeks to heal.

**E**

Even after all the **suffering**, live lamb cutting does not fully eliminate flystrike.

**D**

The intense pain caused by live lamb cutting causes lambs to go into a state of **shock**.



**B**

Lambs experience **fear**, and even avoid the person who live lamb cut them for up to five weeks.

**C**

Lambs experience severe **stress**, weight loss and general condition at a time when they should be growing. This has been associated with increased mortality (death).

Source: Transitioning away from mulesed sheep wool, FOUR PAWS.<sup>16</sup>

## Live lamb cutting: Trying to solve a man-made animal welfare problem by mutilating lambs.

The highly controversial practice of mulesing (more accurately known as live lamb cutting) was named after John W. H. Mules the wool producer who first documented the practice in the 1920s.

Live lamb cutting (also known as mulesing) involves restraining young lambs, usually 2–12 weeks of age, on their backs in a metal cradle. Mulesing shears are then used to cut large folds of wrinkled skin off the lamb's hindquarters to create a wound that will develop smooth scar tissue.<sup>17</sup>

The term mulesing fails to describe the practice and, as a result, hides the cruelty involved. Animal protection organisations across the globe now refer to the practice as 'live lamb cutting.'<sup>18</sup>

Countries such as Argentina, Australia, New Zealand, Norway, South Africa, the United Kingdom, the United States, and Uruguay all produce significant quantities of wool,<sup>19</sup> but Australia is the only major wool-producing country that still practices live lamb cutting.<sup>20, 21</sup> New Zealand banned the practice in 2018 in response to animal welfare concerns and market pressure.<sup>22</sup>



**“Australia is the only country left where mulesing is still legal and that is a very sad state of affairs.”**

— Mark Murphy, Queensland wool producer<sup>4</sup>

**It is estimated that more than 10 million lambs experience the pain and trauma of live lamb cutting every year.<sup>23</sup>**

A humane alternative to live lamb cutting – breeding fly-strike-resistant sheep – became better known and understood in the 1990s through the work of veterinarian Dr Jim Watts.<sup>24</sup> Using selective breeding to revert to plain-bodied sheep with low dag scores and other favourable characteristics, wool producers have successfully transitioned to flystrike-resistant flocks, making the practice of live lamb cutting unnecessary.

While many Australian wool producers successfully prevent flystrike by breeding plain-bodied sheep, 52 per cent of Merino farmers surveyed in 2022 still used live lamb cutting.<sup>25</sup> In a previous survey, an estimated 77 per cent of Merino ewe lambs and 66 per cent of Merino wether lambs are still subjected to the practice.<sup>26</sup>

Growers still practicing live lamb cutting face sustained and increasing pressure to end the practice from the Australian public, consumers, fashion brands and retailers both in Australia and around the globe.<sup>27</sup>

In November 2004, Australian wool industry leaders committed to the Australian public and the global fashion industry that it would end live lamb cutting by December 2010.<sup>35</sup> In 2009, one year out from that deadline, it abandoned the promise, a decision that was met with strong criticism both in Australia and around the world.<sup>28</sup>

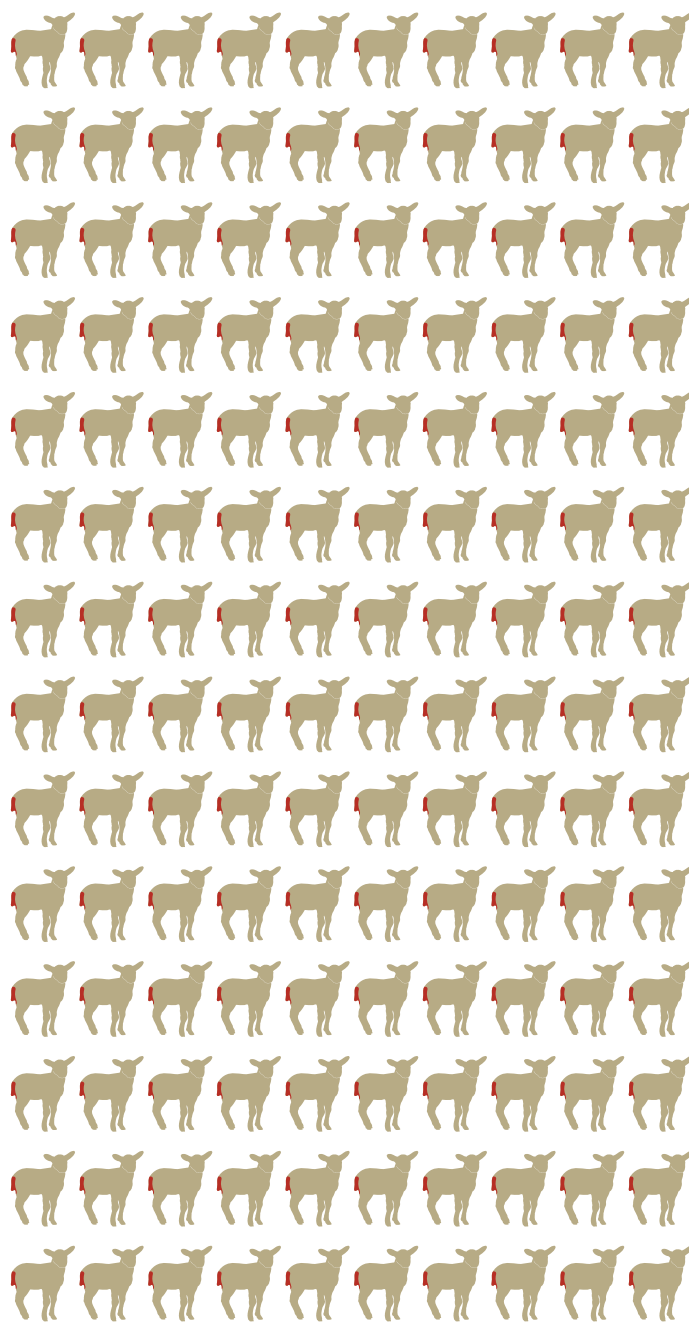


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It is estimated that **more than 140 million** Australian Merino lambs have been subjected to live cutting since the phase-out was due to come into effect in December 2010.<sup>a</sup>

Peak bodies have communicated mixed messages on the importance of breeding flystrike-resistant sheep as a humane alternative to live lamb cutting. These bodies have invested great sums of money searching for other solutions when a proven one already existed. They also continue to support live lamb cutting as a 'welfare tool' and, in doing so, they have demonstrated a stunning refusal to adequately respond to demands from the Australian public as well as consumers, fashion brands and retailers in Australia and around the world.

The deliberate breeding of sheep with a high susceptibility to flystrike and then the live cutting of lambs, with or without pain relief, is increasingly criticised by consumers in Australia and around the world. This cruel practice will never be an acceptable end goal.



(  = 1 million lambs )

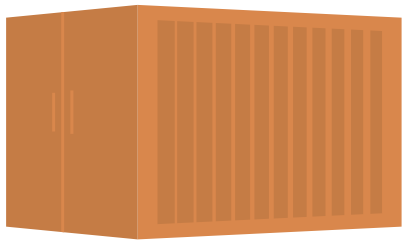
<sup>a</sup> This figure is an estimated calculation using the available ABS data on lamb numbers in the reported period from 2011–12 to 2023–24. The calculation is based on two assumptions. Firstly, we have estimated 56% of total lamb figures reported to be the number of Merino lambs, based on the proportion of purebred Merino lambs to total lambs reported by MLA in 2020. This is a conservative estimate considering we have not accounted for any sheep bred for both meat and wool that may also be subject to live lamb cutting. Secondly, we have assumed the proportion of Merino lambs subject to live lamb cutting to be 80%, based on declaration rates reported by AWEX.



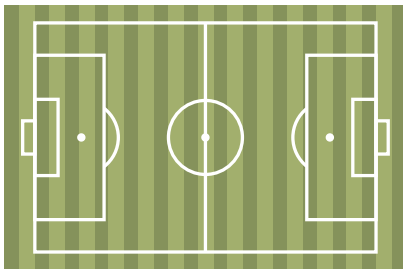
It is estimated that the skin cut from lambs since the ban was due to come into place (in December 2010) would

- cover Sydney Central Business District
- fill 250 shipping containers
- cover 195 football (soccer) fields
- fill three Olympic swimming pools
- cover Buckingham Palace 19 times

Between 2004/05 and 2023/24, the amount of skin cut away from lambs during live cutting is estimated to weigh 13,061 tonnes and cover 2,505,821 square metres.



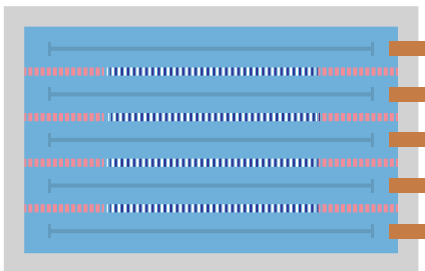
**x 250**



**x195**



**Sydney  
Central  
Business  
District**



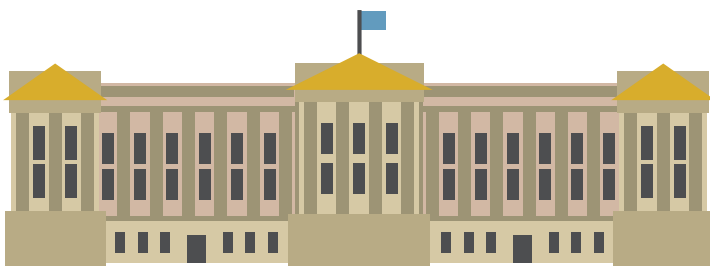
**x3**



**13,061 tonnes**



**2,505,821 m<sup>2</sup>**



**x19**

# Lambs deserve better

## Barbaric and archaic

Cutting large sections of skin from the breech area of lambs is one of the most extreme and invasive mutilations currently permitted in Australian agriculture. The practice causes pain and suffering,<sup>29,30,31,32</sup> and the effects are both immediate and lasting.<sup>33</sup>

Lambs subjected to live cutting:

- Experience intense pain and stress during the procedure, and can suffer pain for hours, days or even weeks afterwards.<sup>34,35</sup>
- Are vulnerable to infection from the open wound that can take days or even weeks to heal.<sup>34</sup>
- Could develop further pain, stiffness or lameness associated with the cuts due to issues such as tetanus or in case of bacterial arthritis where bacteria enters the joints via the bloodstream from the wound.<sup>36</sup>
- Are at risk of flystrike in the wound.<sup>37</sup>
- Can die from shock, trauma or infection.<sup>30</sup> Lambs have an increased mortality rate of up to 4 per cent in the first three months of life due to complications caused by the practice.<sup>38</sup>

## Shortfalls of pain relief

The Victorian and Tasmanian state governments are the only jurisdictions to have mandated the use of pain relief for live lamb cutting. However, there is currently no specific requirement across Australia for providing completely adequate pain relief that would eliminate the pain during live lamb cutting, or sufficiently mitigate pain afterwards. Lambs that receive analgesia or topical anaesthetic for the procedure still feel the pain of the cuts entirely, and this is partly because the only anaesthetic accessible to Australian farmers can only be applied to open wounds.<sup>39</sup>

There are also no regulations requiring effective multi-modal pain relief. Only eight per cent of producers responding to a 2022 survey indicated that they use the 'better practice' combination of analgesia as well as topical anaesthetic.<sup>40</sup> Whenever analgesia is used prior to cutting, it typically should be administered around 30 minutes prior to the event, so it has time to take maximum effect. However, many producers consider this timeframe to be impractical.<sup>41</sup> When it comes to live lamb cutting, most producers administer topical anaesthesia and/or analgesia only after the procedure<sup>25</sup>, meaning the lambs experience the full pain of each cut and even if applied correctly, this level of pain relief is still inadequate.<sup>39</sup> Therefore, while a combination of analgesia and anaesthetic (multi-modal pain management) must be mandatory during any transition phase, the current level of pain relief provided is abundantly insufficient to protect lambs from severe suffering.

If the transition to flystrike-resistant sheep had started when it was first identified as a viable solution, or even when Australian Wool Innovation committed to ending live lamb cutting by 2010, a phase-out could easily have been achieved and millions of lambs spared from this painful procedure.

# People expect better

## Australians expect better

An overwhelming majority (95 per cent) of the Australians who participated in a 2018 study commissioned by the Department of Agriculture and Water Resources expressed concern about the treatment of farm animals and consider farm animal welfare in Australia to be an important issue.<sup>42</sup>

**“Society moves, and we have to move with it.”**

— Ian Trevethan, wool producer<sup>43</sup>

Like other farm animals, Australians expect that our sheep will be better cared for. Live lamb cutting – slicing large sections of skin off lambs – falls far outside of what Australians consider to be acceptable treatment of our animals. An opinion poll carried out by YouGov in April 2024 showed that nearly three-quarters (73 per cent, compared to 71 per cent in 2021) of Australians agree that retailers should stop sourcing wool from sheep subjected to mulesing (live lamb cutting) once learning about the procedure.<sup>44</sup>

Independent polling of over 1,000 Australians conducted in 2023<sup>45</sup> showed that:

- Over 75 per cent of respondents agree that wool growers should breed sheep without wrinkles, so they are not prone to flystrike.
- More than 65 per cent agreed that governments should require a phase-out of mulesing (live lamb cutting).
- Only six per cent disagreed that governments should require a phase-out of mulesing (live lamb cutting).



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**“Consumers expect that a luxurious fibre such as wool will have impeccable animal welfare and environmental credentials.”**

— Australian Wool Innovation, Wool 2030 Strategy<sup>2</sup>



## Consumers demand better

Consumers in Australia and around the world are increasingly demanding better welfare for the animals used in the production of food, clothing and other products. After learning about the practice of live lamb cutting, and the availability of painless alternatives, 80 per cent of participants in a 2024 international YouGov survey agreed that retailers should stop sourcing wool from sheep subjected to live cutting, with over 62 per cent strongly agreeing.<sup>44</sup>

This sentiment was also seen in a 2022 report by the Responsible Investment Association of Australia, which found that “animal cruelty tops the list of individual issues that Australians want to avoid with their investments (66 per cent).”<sup>46</sup>

According to the 2020 Meat Industry Strategic Plan, animal welfare poses the biggest single risk to maintaining market access over the next 15 years. The plan notes that “consumers are increasingly demanding assurances about animal welfare when they buy livestock products, and so understanding the welfare of sheep in Australian production systems is critical if consumer confidence in the sheep meat industry is to be maintained.”<sup>47</sup>

“The market for wool has completely changed from what it was 50 or 100 years ago. The future will involve looking at the market first, and the market overall is looking for a product that’s ethically produced, that’s sustainable, and sees people doing, and attempting to do, the right thing by their animals, their land and their people.”

— Doug Wright, Australian wool producer<sup>51</sup>

The International Wool Textile Organisation (IWTO) notes that wool is increasingly seen by consumers as a sustainable lifestyle choice for fashion and interior textiles and that the global wool industry must be committed to the highest standards of sheep care and wellbeing.<sup>48</sup>



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## The writing is on the wall, and it has been there for years.

**“...we lose sight of what the customer wants at our peril.”**

— Andrew Greenwood Principal, Eildon Springs Superfine and Fine Wool Merino Stud<sup>9</sup>

**“The next generation of consumers in China are already asking questions about the provenance of products they buy.”**

— Josh Lamb, president of the Australian Council of Wool Exporters and Processors<sup>21</sup>



© Julie Mowbray | Alamy Stock Foto

**“Customers have the expectation that animals will be looked after.”**

— Eamon Timms, wool broker<sup>49</sup>

**“We have noticed a significant increase in the interest of fibre use and animal welfare, but also sustainability in general, among our customers.”**

— Jennifer Lui, Vice President of Public Relations and Sustainability, Esprit<sup>50</sup>

**“...growers must be seen to do the right thing in the consumer’s eyes and mulesing must stop if we are to have a future and selective breeding is the best alternative in the long run. Improved wool quality to produce a softer, more desirable product along with acceptable animal welfare practices is the only way forward.”**

— David Rowbottom, Victorian wool producer and five-time winner of the Vellus Aureum trophy for the world’s finest Merino fleece<sup>4</sup>

**“This is something that we know our customers want.”**

— Eloise Bishop, Head of Sustainability, Woolworths Australasia (which owns David Jones, Country Road, Witchery, Trenery and Politix)<sup>87</sup>

# Brands are doing better

Brands are listening to consumers, responding to the changing environmental context, and increasingly turning their back on wool taken from sheep subjected to live cutting.

## Time is running out – brands demand an end to live lamb cutting

**Over 330 brands have publicly stated their opposition to live lamb cutting,**<sup>51,52</sup> and have completely ended their use of live-cut wool, or are working towards doing so. The list of brands and retailers opposed to live lamb cutting include Adidas, ALDI, Big W, Country Road Group, David Jones, Esprit, H&M, Hugo Boss, Kmart, Mango, Myer, The North Face, Patagonia, Target and Zara. Many of these brands are already seeking wool from suppliers outside of Australia.

Both HSI Australia and FOUR PAWS work with brands and retailers, assisting with their policies on live lamb cutting. A growing number have committed to stop sourcing wool from live-cut lambs or have a position opposing it. In 2024, FOUR PAWS launched the 'Wear It Kind Directory' – a growing brand rating platform, initially evaluating more than 220 brands on four animal welfare issues, one of them being live lamb cutting. This analysis found that 67% of the brands included had committed to completely excluding live-cut wool by 2030, and to only use wool certified by a robust animal welfare standard.<sup>53</sup> Furthermore, HSI Australia's 'Better Wool Guide'<sup>54</sup> includes more than 240 brands, and the initiative aims to help consumers

make informed choices. Many brands featured in the guide already source live lamb cut-free wool certified through ZQ Merino, RWS or NATIVA™, have set a goal to stop sourcing wool from live-cut sheep by 2025 or 2030, or have chosen to stop sourcing any wool from Australia.

As markets shift away from live lamb cutting, the Australian Government and wool industry must respond to this market shift, not lag far behind it. Industry bodies including AWI and WoolProducers had an opportunity to lead a nationwide transition away from live lamb cutting but failed to do so. Market shifts have sent a clear signal and have driven significant progress already, but they only go so far. Regulation is required to ensure that the animal welfare improvements being demanded by consumers are both comprehensive and permanent.



## Restoring confidence in Australian wool

According to Paolo Zegna, board member and former Chairman of Italy-based Ermenegildo Zegna Group, consumers are now considering that Australian wool is not “as pure, as clean as people thought,” and action on live lamb cutting is required to restore “confidence and interest” in the product.<sup>55</sup> Dr Zegna warns that, while live lamb cutting is already a significant concern in Europe, other markets could quickly start making the same demands. “Chinese consumers can evolve quickly and could start asking the same 360 degrees quality with precisely the same intensity as consumers of the younger generation in other parts of the world.”

For years now, international buyers, including those from China and Europe, have sought wool from Australian sheep that have not been subjected to live cutting<sup>56</sup> or wool produced outside of Australia.<sup>49</sup> This sentiment was echoed by Su McCluskey, Australia’s special representative for agriculture when speaking at the Queensland Rural Press Club in 2023. According to Ms McCluskey, “China doesn’t care too much about animal welfare, but wait until China starts to realise that the premium they are getting in Europe will not be there unless they are sourcing non-mulesed wool.”

**“Europe thinks mulesing is a barbaric activity and the reality is that painkillers are not going to cut it.”**

— Su McCluskey, Australia’s special representative for agriculture speaking at the Queensland Rural Press Club in 2023<sup>57</sup>



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**“At ba&sh, animal welfare is close to our hearts. We have zero tolerance for mulesing and strictly ban this practice in our supply chain. The ongoing practice of mulesing in Australia is incompatible with these values. The transition away from this inhumane practice is moving far too slowly. It’s time to fully back genetic solutions that ensure the welfare of these animals and align with the global shift towards ethical fashion.”**

— Julie Hamadouche and Charlotte Roux, ba&sh (email correspondence, 2024)

**“We believe it is important for the entire fashion industry to continue to develop positively with regards to animal welfare. Therefore, the availability of mulesing-free wool needs to increase. Large wool producing countries such as Australia can have a major impact here. Ultimately, this will enable consumers worldwide to make more responsible buying decisions.”**

— team at HUGO BOSS (email correspondence, 2024)

**“We have a responsibility to ensure animal welfare within our supply chain. We encourage the rest of the clothing industry to achieve a more ethical supply chain by using the guidance and experience of stakeholders that have become mulesed-free. We also hope the wool-growing industry will rise to supply this market and meet the consumer demand for humanely sourced animal fiber.”**

— Nicholas Allen, Patagonia (email correspondence, 2024)

Despite this, a 2023 briefing to Murray Watt, Minister for Agriculture, Fisheries and Forestry, ahead of EU free trade agreement negotiations showed that the Australian government had no intention of phasing out live lamb cutting.<sup>58</sup>

## Australia behind the 8 ball

Following a 2023 trade delegation visit to Milan, Italy, Australian Superfine Woolgrowers Association (ASWGA) president Mark Waters noted that the question most frequently asked by processors was when Australia would stop live lamb cutting. “It wasn’t just one processor; it was the whole lot,” said Mr Waters.<sup>55</sup>

According to Mr Waters, mills are sourcing most of their Responsible Wool Standard (RWS) certified wool from South Africa and South America, “and these countries are getting better prices than we are getting here in Australia... it is the brands who are asking.”<sup>55</sup> But it is not only overseas companies that are unable to source sufficient RWS-certified wool from Australia. At the annual ASWGA conference in 2023, Mr Waters highlighted a case study of an Australian company that was unable to obtain RWS-certified wool domestically and resorted to sourcing it through New Zealand Merino.



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An ever-growing list of brands, both in Australia and globally, are committing to ending their use of wool from sheep subjected to live cutting. This shift is gaining momentum, and will continue to do so, regardless of the availability of such wool in Australia. Where buyers are unable to source 'non-mulesed' wool from Australia, they will obtain it from other wool producing nations.

**“We are facing special requests from our clients for fabrics to be not made of mulesed wool and also [wool that isn’t] Aussie. That is because of the mulesing issue. The market, especially from the [United] States, is asking for non-mulesed wool.”**

— Davide Fontaneto, European wool buyer<sup>56</sup>

**“Unfortunately, some of the wool qualities we’re after are still not widely available as certified non-mulesed, which is why we have also decided to incorporate the use of recycled wool to expand our portfolio of sustainably sourced wool.”**

— Jennifer Lui, Vice President of Public Relations and Sustainability, Esprit<sup>50</sup>

**“From our experience, the use of non-mulesed wool from plain-bodied sheep has been an easy story to explain, and easy for our retail and brand customers (the decision-makers) to understand and accept. The challenge now for us is to find larger supplies of these types of wool across a large range of microns as, last year, demand started to exceed supply.”**

— Jimmy Jackson, Managing Director, Woolconsult Pty Ltd (in 2020)<sup>4</sup>

**“The most alarming comment is that companies are already making the investment to other wool-producing nations including Africa, Argentina, Russia and China in order to fill the non-mulesed gap and demand from consumers.”**

— Nick Lyons, NSW wool producer<sup>59</sup>



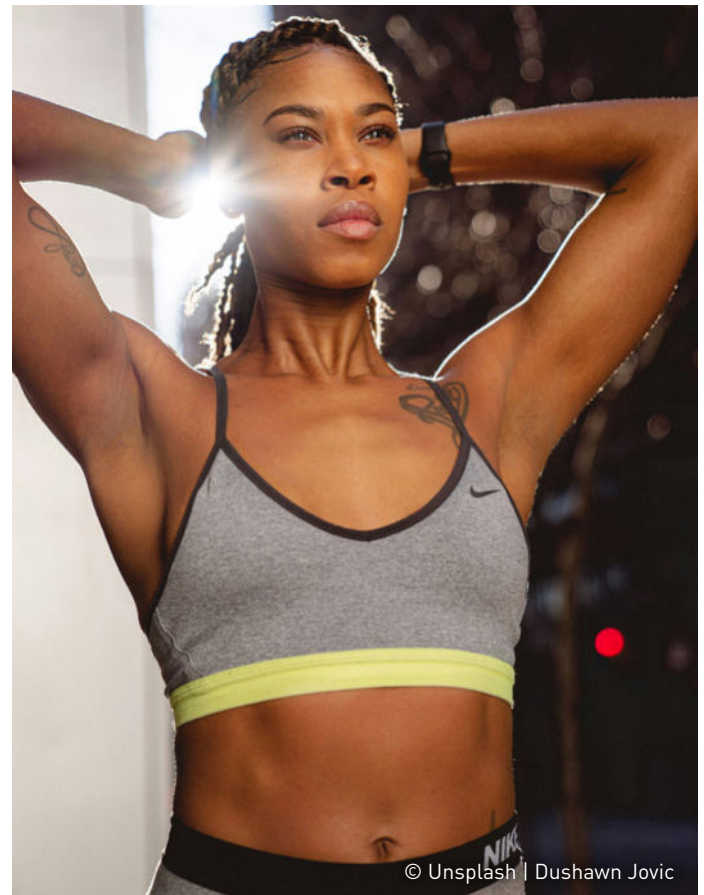
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## Animal welfare and sustainability

The *Guidelines for Multinational Enterprises on Responsible Business Conduct*, issued by the Organisation for Economic Cooperation and Development (OECD), set the global benchmark for ethical business practices. In June 2023, the OECD released a 'targeted update' to those guidelines, which, for the first time, demand that businesses uphold animal welfare standards in their policies and practices.

According to Eurogroup for Animals, the update enables civil society to engage directly with companies and hold them accountable for maintaining animal welfare standards throughout their supply chains. In the event a company fails to do so, a complaint can be filed via National Contact Point mechanisms.<sup>60</sup>

Industries, including the Australian wool industry, that use sustainability credentials to promote their products must be aware of how much of a priority animal welfare has become as a key component of sustainability.



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**“When sourcing raw materials from animals, it is essential that welfare and environmental credentials support the sustainability aspects of the land, the animals, and the people caring for it.”**

— International Wool Textile Organisation 2023<sup>61</sup>

### **Live lamb cutting shunned by all major sports brands.**

In 2023, sportswear giant Nike joined Adidas and Puma in committing to only use wool from sheep not subjected to live cutting. This came after more than 80,000 people called on the company to ban 'mulesed wool.' Nike confirmed that it will now only use wool certified under the Responsible Wool Standard.<sup>62</sup>

# The solution exists

The injustice of subjecting lambs to an intensely painful mutilation is heightened by the fact that a humane solution has always existed, it has been understood since the 1930s, and it has already been successfully adopted by many Australian wool growers.

## The wool industry created the problem with breeding and can fix it the same way.

In the relentless effort to produce as much wool as possible from each animal, many wool producers bred sheep with excess skin. The wrinkles formed by the excess skin trap moisture, faeces and urine, which, in turn, attract blowflies. Sheep are susceptible to flystrike because some producers deliberately breed for excess wrinkles. This risk must be managed. The answer is not to cut the flesh off lambs – it is to address it directly at the source by transitioning to sheep with a natural resistance to flystrike.

Plain-bodied sheep, defined by Meat & Livestock Australia as sheep with a wrinkle score of two or less, are naturally far less susceptible to flystrike because they don't have wrinkles that trap the moisture, urine and faeces which attract blowflies.

Breeding flystrike-resistant sheep – those that are plain-bodied and have low dag, breech cover and staining characteristics – is the best long-term permanent solution for flystrike and it eliminates the need for other forms of intervention. The factors that contribute to flystrike risk, including dag score, wrinkle breach, urine stain, breech cover and wool colour, can all be addressed through selective breeding (see table 1).

**Table 1**

Trait	Heritability
Dag	30%
Breech wrinkle	40%
Urine stain	40%
Breech cover	30%
Wool colour	40%

Data obtained from research undertaken by Greeff, Karlsson & Schlink (2014)<sup>63</sup> and Brown, Swan and Gill (2010)<sup>64</sup>, as summarised by Next Gen Agri.<sup>65</sup>

**“Breeding is our number one tactic.”**

— Andrew Kirk, wool producer<sup>49</sup>

**“Sheep with less breech wrinkle have a lower susceptibility to flystrike.”**

— Meat & Livestock Australia and Australian Wool Innovation<sup>66</sup>



**“The power of selection and breeding to improve livestock welfare is enormous, it is a win-win for farmers and the animals, lower cost production systems and happier and healthier livestock. A great example is the breeders who have successfully bred away from the need for mulesing and reduced the incidence of flystrike. This is just the beginning of the tools we have to select healthier animals, and they are getting better all the time.”**

— Mark Ferguson, livestock consultant, Next-Gen Agri (email correspondence, 2024)

This information isn't new: studies evidencing the link between plain-bodied sheep and natural flystrike resistance were published as early as the 1930s<sup>7</sup> and, according to the Western Australian Department of Primary Industries and Regional Development, significant work was undertaken in the 1930s, 1940s and 1950s on genetic selection for resistance to breech strike.<sup>9</sup> Following that, during the 1980s, veterinarian Dr Jim Watts commercialised the genetic breeding programme known as Soft Rolling Skin® or SRS®, breeding sheep that were wrinkle-free and did not require live lamb cutting.

**“This is an outstanding answer to a difficult issue facing the wool industry... I implore wool producers to embrace this idea, make the change in the full knowledge it won't take them a long time. They can do it with the right help within five years.”**

— Dr Jim Watts, 2008<sup>24</sup>

According to Dr Watts, the problem of flystrike was largely created by humans<sup>15</sup> and, as it was caused by selective breeding, it can be fixed the same way. There is now a consensus within the Australian wool industry that breeding flystrike-resistant sheep plays a crucial role in controlling breech and tail strike.<sup>67</sup> It is estimated that thousands of wool producers already successfully farm this way, and many have advocated for an industry-wide change.

**“In the nine years from 2004–2013, when I was actively involved in the issues involving the controversial animal-husbandry procedure in the Australian sheep industry known as ‘mulesing,’ the Australian industry had already started research on several possible alternatives to prevent potentially fatal blowfly strike in sheep. The most promising of these alternatives involved a genomics initiative – a breeding program to reduce skin wrinkle in Merino sheep...”**

— Erik Autor, former National Retail Federation (NRF) executive (1998–2013) representing the US retail industry on corporate social responsibility (CSR) issues (email correspondence, 2024)

# The benefits of plain-bodied sheep

Farming plain-bodied sheep is an effective solution to permanently reduce the risk of flystrike.<sup>68</sup> By breeding plain-bodied sheep, wool producers can get high-quality fleece, a healthier flock, and access to domestic and international markets that are increasingly refusing to have any part in the cruelty of live lamb cutting. Wool producers who farm plain-bodied sheep have reported a range of animal welfare and productivity benefits.<sup>4</sup>

**“Wrinkle-free sheep are faster growing, more fertile, easier to shear, withstand wet conditions and are less susceptible to flystrike than traditional Merinos. All these benefits result in a flock of sheep that requires less intervention, lowering the cost of production and increasing sheep enterprise income.”**

— East Loddon Merino Stud<sup>69</sup>

## Better animal welfare

- No open wounds and associated risk of infection. Lambs subjected to live cutting are left with large open wounds that can take weeks to heal,<sup>34</sup> leaving them vulnerable to infection and even the risk of flystrike in the wound.<sup>37</sup>
- No pain and risk of shock from the live cutting procedure.<sup>30</sup> The practice of cutting large slices of skin off a lamb with shears, without prior administration of pain relief, causes significant pain.<sup>35</sup> Even when pain relief is administered, it is inadequate. This pain can last from 48 hours up to several days or weeks.<sup>34</sup>
- No fear and stress response caused by live cutting. Lambs who have experienced live cutting often avoid human contact after the mutilation occurs, particularly with the person responsible for it. This avoidance is a clear indicator of the fear and trauma experienced by the lamb.<sup>34</sup>



Wrinkly versus plain-bodied sheep (source: Dr Jim Watts)

## Greater lambing success and lamb survival rates

**The link between low wrinkle scores and lamb survival rates has been evidenced in both research and on-farm environments.** Research, including that undertaken on behalf of the Western Australian Department of Primary Industries and Regional Development (DPIRD), shows that the “number of lambs weaned per ewe joined decreases as the breech wrinkle score of the ewe increases.”<sup>9</sup>

This link has also been observed by wool producers who have made the transition from high- to low-wrinkle sheep. A report by BG Economics, based on a survey of almost 100 growers from a broad range of climatic and geographical zones in Australia, noted that producers saw increased lamb survival and growth rates after transitioning to plain-bodied, flystrike-resistant sheep. This includes:

- South Australian wool producer Chris Atkinson, who achieved an increase from 85 per cent to the current rate of 91–100 per cent.
- The Karbullah Merino Stud in Southern Queensland that increased lambing rates from 110–120 per cent to 121–130 per cent with a lamb survival rate of 90 per cent.
- Wallaby Run in South Australia who increased their lamb growth rates and lambing percentage increased from 85 per cent to between 91 and 100 per cent.<sup>4</sup>
- The Parkdale Merino Stud in New South Wales that reported a 40 per cent increase in lamb survival.

Furthermore, lambs subjected to live cutting have an increased mortality rate of nearly 4 per cent due to complications resulting from the mutilation.<sup>38</sup>

**“We have known for up to 80 years that wrinkles on sheep lead to lower fertility of rams and ewes, less lambs weaned, slower lamb growth rates and poorer wool quality, more difficult shearing, more second cuts and more skin pieces in the fleece.”**

— Dr David Scobie, farm system scientist<sup>4</sup>

**“The wrinkle was taken off the sheep and that meant the place for flies to live and lay eggs was eliminated... you can have increased number of lambs, and lambs that don’t lie down and die.”**

— Doug Wright, wool producer<sup>70</sup>

**“Since transitioning to plain-bodied sheep types, I’ve noticed our ewes are having less taxing and more successful births, better able to handle the physical demands of mothering and better at it.”**

— Don Mudford, woolgrower<sup>71</sup>



## More efficient feed conversion

Wrinkly and thick skin in sheep is resource-intensive to maintain. Plain-bodied sheep can instead use that energy for growing, resulting in more efficient feed conversion, weight gain and wool growth. According to Queensland wool producer Mark Murphy, the plain-bodied sheep that he farms are more metabolically efficient than those with a high wrinkle score. "It requires less mega joules of energy to maintain itself and they don't have a thick heavy skin to maintain."<sup>4</sup>

"A wrinkly Merino skin can weigh up to 8kg, about 10 per cent of its body weight, but the plain-bodied skin is only about 3kg. It's one of the reasons they're more fertile. A lot of the clients who buy our rams are achieving lambing percentages over 120 per cent compared to the Australian average of 80 per cent. That's enormous when you're dealing with the profitability of a single flock."

— Norm Smith, wool producer<sup>13</sup>

## Faster weight gain in lambs

Lambs subjected to live cutting also experience lower weight gains than those that are not.<sup>38</sup> There are several contributing factors to this, including the large wounds inflicted on lambs that can take weeks to heal, the pain and trauma associated with the mutilation, and the fear and stress response shown by lambs following the procedure.

## Wool quality

Growers who have transitioned to plain-bodied sheep have seen improvements in wool colour, wool character and staple structure, as well as a reduction in scouring and staining.<sup>4</sup> Plain-bodied sheep have low primary fibre diameter, high fibre density, and high fibre length.

In 2020, for example, Victorian wool producers David and Susan Rowbottom, who run plain-bodied Merinos and were one of the first to phase out live lamb cutting, collected their sixth 'Vellus Aureum Trophy' for producing the finest Merino fleece in the world.<sup>72</sup> According to David Rowbottom, wool colour, wool character (crimp), staple structure, scouring and staining have all significantly improved since making the change to plain-bodied Merinos.<sup>4</sup>

Wool producers Norm and Pip Smith from Glenwood in New South Wales say that, with flystrike-resistant sheep, they produce a better processing fibre that is valued by their customers. The yarn produced is more even, elastic, soft against the skin, has a good affinity to dyeing and produces less short fibre or waste.



## Return on investment

Following an initial investment in selective breeding to achieve a naturally flystrike-resistant flock and with adequate management, wool producers can save both time and money, and they no longer have to resort to the cruel practice of live lamb cutting.

Of the 97 wool producers who participated in a 2019/20 survey by BG Economics:

- 83.5 per cent said that transitioning to breed plain-bodied Merinos was not costly
- 84 per cent said they achieved an increased return on investment
- 82 per cent experienced increased lamb growth rates (lambing percentage also increased)
- 87.6 per cent received a price premium for wool from sheep not subjected to live cutting<sup>4</sup>



© FOUR PAWS

## Fleece weight

Farmers began breeding wrinkly sheep believing that this would produce more wool per sheep, but research conducted over many decades, including from the Western Australian DPIRD, shows that it is possible to have sheep with low breech wrinkle scores and higher-than-average fleece weights.<sup>9</sup>

According to stud breeder and classer Tom Silcock, co-founder of the Merino Lifetime Productivity Project (MLPP), Australia's biggest Merino research project, it is entirely possible to breed sheep with below-average wrinkle and above-average fleece weight. Some of the top performing ewes in the MLPP trial had a low wrinkle score and would not require live lamb cutting to reduce susceptibility to flystrike. According to Tom Silcock, "...they are the [sheep] we've got to use. People are wanting them, and they are finding them now."<sup>73</sup>

Many Australian producers who have successfully transitioned to flystrike-resistant flocks are encouraging others to listen to what the public are calling for and to make the same move themselves.

**"Each year, people all over the world are saying more and more that they want wool from non-mulesed sheep. To get ahead of the ball and have a product that will be in high demand in 5 or 10 years' time, start your breeding programme now and don't get left behind."**

— Chris Atkinson, South Australian wool producer<sup>4</sup>

## It's just time we moved on... and many have

An Australian Wool Innovation survey of 1,203 Merino farmers found that, in 2021, 52 per cent live-cut their ewe lambs, while 44 per cent live-cut their male lambs. This is a significant reduction from 2017 figures, which showed that 70 per cent of Merino producers live-cut their ewe lambs.<sup>25</sup>

These figures do not directly correlate to sheep numbers, however, as Merino producers with large flock sizes are far more likely to use live lamb cutting. This was demonstrated by a 2021 survey, which found 70 per cent of producers with a flock size of over 2,000 reported live lamb cutting, whereas only 19 per cent of producers with a flock size of 100–499 reported doing so.<sup>25</sup> Unfortunately, since the transition is primarily being made by producers with smaller flock sizes, twice as much wool produced in Australia is declared as 'mulesed' (with or without pain relief) compared to 'non-mulesed,' and the transition overall is happening at a snail's pace.<sup>74</sup>

The downward trend does show, however, that an ever-growing number of producers are turning their back on this archaic and barbaric practice and, for many wool producers, live lamb cutting has no place in modern farming. These farmers are realising the animal welfare, productivity and market benefits of the plain-bodied Merino.

There are many Merino studs across Australia offering flystrike-resistant Merino sheep. This includes Konsortium Merino, Multi Purpose Merino, Bella Lana and White River Merino. SRS® Genetics alone now includes members with 13,000 stud breeding ewes producing 1,400 sale rams every year and servicing both domestic and international markets.<sup>75</sup>



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**“We’ve got sheep now that we can breed that haven’t got that skin on them in the hindquarters and they don’t need to be mulesed.”**

— Doug Wright, Australian wool producer<sup>70</sup>

In 2019/20, agricultural economic firm BG Economics undertook a survey of 97 wool producers from across Australia<sup>b</sup> who had successfully transitioned from ‘wrinkly’ to plain-bodied Merinos.<sup>4</sup> The results from this research, published in the report *Towards a non-mulesed future: Selective breeding to counteract flystrike in Australian Merino sheep*, showed that

- 77.5 per cent fully transitioned within five years
- 42.7 per cent transitioned within two years
- 83.5 per cent say transitioning is not costly
- 84.1 per cent have achieved an increased return on investment
- 86.6 per cent would recommend the transition to other wool producers.

<sup>b</sup> Percentages of growers who took part in the survey: 61.9% New South Wales; 15.5% Victoria; 11.3% South Australia; 5.2% Queensland; 4.1% Tasmania and 2.1% Western Australia.

In responding to the report, Charles Massey, wool producer, scientist and renowned author of *Breaking the sheep's back*, said that it “clearly confirms that:

- the wool growers responding to customer demand for better animal welfare by eliminating live cutting find it profitable to do so;
- transitioning to plain-bodied Merinos that don't need mulesing is achievable within five years; and
- this transition is not costly, and it leads to increased lamb growth and weaning percentages and delivers wool price premiums whilst being integral to their increased profitability.”<sup>59</sup>

**“Through genetics and good management, you can quickly change a sheep within two generations that doesn't need mulesing and has these other co-benefits. And it is just time we moved on.”**

— Dr Charles Massy, OAM, wool producer, author<sup>59</sup>

**“We have basically eliminated hard wrinkle on our sheep and all of our sheep are now plain-bodied. We haven't mulesed since 2005 and we haven't mulesed our wethers since 2001.”**

— Norm Smith, fourth-generation wool producer<sup>24</sup>

## **Making the transition to plain-bodied sheep**

Many farmers who have already transitioned to plain-bodied Merinos found that the cost of doing so was minimal and that the process was quicker and easier than expected. These growers are now reaping the benefits of more productive and efficient flocks<sup>4</sup> and increased access to global markets.

**“Breeding for resistance to breech strike offers the best long-term permanent solution.”**

— Western Australian Department of Primary Industries<sup>68</sup>

**“It is actually so simple that I can't believe that the industry hasn't made more progress.”**

— Don Mudford, NSW wool producer<sup>71</sup>

**“Times have changed, the way consumers see mulesing has changed and we, as wool producers, need to change with those times.”**

— Norm Smith, Australian wool producer<sup>70</sup>

They argue that, with continual improvements in genetics and technology, transitioning a flock can happen even more efficiently now. The length of time it takes to transition to plain-bodied sheep depends on several factors.<sup>76</sup>

## **The intensity and focus of the breeding programme**

Breeding programmes that focus exclusively on flystrike resistance are likely to achieve success in a shorter period than programmes that aim to achieve multiple breeding goals. The duration can also be influenced by whether farmers are seeking flystrike resistance characteristics in both ewes and rams or just rams alone and whether wool producers are largely working with existing animals or introducing entirely new genetics.





## The level of susceptibility of sheep to flystrike at the start of the programme

Herds with a high susceptibility to flystrike, e.g. where sheep have high wrinkle and dag scores, are likely to take longer to transition than those starting with a lower risk, e.g. comparatively lower wrinkle and dag scores.

## Environmental conditions

The location of the farm may affect the period needed to transition to a flystrike-resistant flock. Farms located in higher-risk areas may require a longer transition period than those in lower-risk locations.

Breeding plain-bodied sheep is the single most effective way to prevent flystrike: selective breeding can also be used to reduce dag and urine stain and increase the bare area in the perineal region.<sup>68</sup> In addition, an integrated approach to blowfly control, particularly during a transition period, is recommended. According to RSPCA Australia, such an approach should include management strategies such as

- monitoring blowfly activity and regularly inspecting flocks for flystrike
- selective use of chemical treatments, if required
- animal husbandry and farm management practices that consider the timing of shearing and crutching
- improving body condition and flock health
- effective control of dags and worms
- shorter joining (3–6 weeks).<sup>77</sup>

Transitioning a flock takes time, so it is essential to set a precise end date for live lamb cutting that wool producers can start working towards now. During the phase-out period, it is critical that, as a minimum requirement, lambs are given both anaesthetic and analgesic pain relief prior to the mutilation occurring. As discussed, this multi-modal pain management is a necessary interim measure while the wool industry transitions to plain-bodied sheep.

A plethora of information exists for wool producers looking to make the transition including the BG Economics report, *Towards a non-mulesed future: Selective breeding to counteract flystrike in Australian Merino sheep*,<sup>4</sup> as well as via FlyBoss<sup>78</sup> and neXtgen Agri.<sup>65</sup>

## Case study 1: Parkdale – Don & Pam Mudford



© Don Mudford | Parkdale SRS

Don Mudford's family has farmed sheep in the Central West of New South Wales since 1912. In 1990, Don and his wife Pam established the Parkdale Merino Stud and now have a herd of over 25,000 Merinos.

Like most farmers, they initially used live lamb cutting to prevent flystrike, but over 20 years ago they transitioned to plain-bodied sheep and were able to stop the practice altogether.

"We knew that no amount of mulesing stops all tail flystrike or flystrike along the body (bodystrike). Mulesing is no full-body solution," said Don.

"Mulesing-free genetics like SRS<sup>®</sup> genetics are available now, and when you introduce them to your flock, you can end mulesing within only one breeding cycle. We haven't mulesed for over 20 years now."

Since making the transition, the Mudfords have seen an increase in productivity, and using SRS<sup>®</sup> breeding principles and flystrike-resistant sheep, they have produced 11 per cent more wool and seen a remarkable 40 per cent increase in lamb survival rates.

"While wrinkly sheep have more surface space, SRS<sup>®</sup> plain-bodied sheep have longer and faster-growing fibres. Hence, there is no disadvantage when it comes to the amount of wool from plain-bodied sheep," said Don.<sup>71</sup>

## Case study 2: Mumblebone stud – Chad & Louise Taylor

Chad and Louise Taylor farm dual-purpose Merinos in Wellington, New South Wales, with a typical flock size of 4,500. They stopped live lamb cutting in 2006, instead transitioning to plain-bodied Merinos. This transition took them only one generation. There was no increase in the cost of production, and they have achieved a body strike rate of zero and a breech strike rate of less than 0.5 per cent.

The Taylors describe the return on investment as “somewhere between excellent and outstanding” and report multiple benefits of farming plain-bodied Merinos:

- Saving on the cost of live lamb cutting
- A price premium for their wool
- Sheep that are more fertile and demonstrate better bonding rates

- Fewer birth difficulties and an increase in lamb and ewe survival. The lambing percentage is now 121–133 per cent, a significant increase from their previous rate of 89–107 per cent.
- Increased lamb growth rates. Wrinkly Merino lambs that had been live-cut were, on average, around 5–8kg lighter at 10 months of age.
- No need for flystrike prevention or treatment.

The Taylors drench their flock twice a year and report that crutching is rarely, if ever, needed. The wool they produce is certified with RWS, ZQ Merino, New Merino, SustainaWOOL and Authentico. Currently they are selling over 400 rams a year to farms across Australia, as well as genetics to four other countries around the world.



“It’s very important to evolve in business, and as an industry, to stay in touch with contemporary production systems and contemporary consumer attitudes. Mulesing is no longer accepted by many of the retail brands that sell woollen products and so we must evolve to accommodate this change in sentiment if we are to remain in business. Many still think we can tell our consumer what we are going to sell them, that they have to buy it, when of course they don’t.”

— Chad Taylor, NSW wool producer<sup>4</sup>

## Case study 3: 'Karbullah' Southern – Mark & Vicki Murphy

Mark and Vicki Murphy are stud breeders and Merino wool producers in Goondiwindi, Queensland. Their typical flock size is approximately 3,000 and they stopped mulesing in 2004. They decided to transition to plain-bodied Merinos out of a desire to farm in a more animal-friendly way. They achieved this transition in two generations; however, they advise other growers that “nowadays you could probably do it in a generation with the improved data and techniques available.”<sup>4</sup>

As a result of farming flystrike-resistant sheep, they have achieved a body strike rate of zero and a breech strike rate of 0.1–0.5 per cent.

Since transitioning, they have also seen

- Greater lambing success. Rates are now at 121–130 per cent, up from 110–120 per cent.
- Higher lamb survival rates, now at approximately 90 per cent.
- More efficiency. Without thick, heavy skin to maintain, plain-bodied sheep are more metabolically efficient.
- A price premium of up to \$3 per kilogram (clean).



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# The broken promise

In November 2004, in response to local and international condemnation of live lamb cutting, Australian wool and sheep industry leaders, including WoolProducers, National Farmers' Federation and Australian Wool Growers Association, unanimously expressed their commitment to phase out live lamb cutting by 31 December 2010.<sup>79</sup>

## RESOLUTION: the AWI Board

unanimously resolved that, as required by the decision of the whole of industry meeting in November 2004, AWI will continue to vigorously research alternatives to surgical mulesing in support of the industry's commitment to the phasing out of surgical mulesing by 31 December 2010 and fully endorses the use of pain relief in the interim.<sup>79</sup>

This decision was welcomed by people, brands and retailers across Australia and around the world. However, in July 2009, 1.5 years before the deadline, Australian Wool Innovation admitted the industry would fail to keep its promise.

This failure has had serious and lasting implications for the welfare of Australian sheep. Based on data from the Australian Bureau of Statistics (ABS), Meat & Livestock Australia (MLA) reports and published live lamb cutting rates, conservative estimates suggest that over 140 million lambs have been subjected to live cutting since the ban was due to come into effect on 31 December 2010.

More than **140 million** lambs have been subjected to live cutting since 2010 when the ban was due to come into effect.

It has also had significant economic implications. Flystrike costs the \$3.2 billion Australian wool industry an estimated \$323 million every year in prevention, treatment and production losses.<sup>14</sup> Had the industry transitioned decades ago when the link between high wrinkle score and flystrike risk was established and when low wrinkle score breeding stock became readily available, billions of dollars could have been saved.

## Condemnation in Australia and around the world

The 2009 announcement from Australian Wool Innovation that the industry would not, as promised, meet the 2010 deadline was met with condemnation both in Australia and in international markets.



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“We had an end date, and we’ve now moved away from that and that’s really disappointing. This industry’s going to now have to deal with this for years to come.”

— Queensland farm group AgForce<sup>80</sup>



**“The 2010 deadline is not negotiable and loss of confidence in M&S wool products could well lead to widespread customer boycotting and loss of revenue for the whole supply chain.”**

— Marks & Spencer<sup>28</sup>

US-based National Retail Federation (NRF), the world’s largest retail trade association, had welcomed the industry’s commitment to phase out live lamb cutting. After hearing that the commitment had been abandoned, the NRF wrote to then Agriculture Minister Tony Burke in April 2010 requesting that the Australian Government intervene.

Speaking to the media at the time, a spokesperson for the NRF said, “Then, unexpectedly, AWI announced in July 2009 that it was effectively abandoning the statement of commitments – promises that we had relied upon. AWI’s decision to abandon the declaration and its internal problems this late in the game has left us in a very difficult position. As a result, many companies in North America and Europe have directed their suppliers to use non-mulesed wool or are actively seeking sources of non-mulesed wool including from outside Australia.”<sup>81</sup>

The sector failed to achieve the promised ban because, quite simply, it failed to act.

Australian Wool Innovation indicated the decision to abandon the deadline was made on welfare grounds. However, if a serious effort had been made to achieve a nation-wide transition to plain-bodied Merinos during the phase-out period, the risk of flystrike would have been addressed and the ban implemented without adverse effects on sheep welfare.

Instead, throughout the phase-out period and as the deadline grew ever closer, some producers knowingly perpetuated the problem by breeding sheep with excess skin and wrinkles. Failure to transition to plain-bodied, flystrike-resistant sheep meant that, as the deadline approached, there were still many large flocks of wrinkly sheep who remained at high risk. It was this risk that AWI subsequently used as an excuse for abandoning the commitment.

With peak industry bodies failing to show leadership and many wool producers knowingly breeding high-risk, wrinkly sheep as the deadline approached, a nation-wide phase-out was simply impossible.

In breaking its promise, Australian wool peak bodies not only failed Australian sheep, but also Australian wool producers and the Australian public. For the Australian wool industry to catch up with changing public sentiment, and to repair a reputation damaged through live lamb cutting, there must be a nation-wide ban on the mutilation once and for all.

**“Mulesing is a barbaric practice that is totally unnecessary. Producers who choose to breed wrinkly type sheep that require the practice have chosen an unsustainable enterprise.”**

— Nick Lyons, NSW wool producer<sup>4</sup>

“Animal welfare has become increasingly important to consumers in recent decades and is often a major factor in their purchasing decisions of products and services. Industries and businesses that do not recognise this, or are slow to respond to changes in consumer demand, risk consumers making alternative purchasing choices where there is a substitute product. This is the case for wool which competes with cotton and synthetic fibres.”

— Dr Stephen Thornton Principal, BG Economics<sup>4</sup>

## Wool industry leadership failing to deliver

By failing to deliver on its promise to stop live lamb cutting and replace it with the humane alternative of breeding plain-bodied sheep, the Australian wool industry has continued to grow a product that an ever-growing number of brands and consumers are turning their backs on.

While many individual wool producers are transitioning their farming practices to deliver what consumers and brands are asking for, peak bodies continue to support a mutilation that consumers and brands are increasingly refusing to be associated with.

Some Australian farmers are reaping the benefits of selling non-mulesed wool, but when brands are unable to source enough non-mulesed wool from Australia, they inevitably turn to other wool producing countries.<sup>55</sup>

According to Australian Wool Innovation, there remains significant potential growth for wool globally.<sup>82</sup> But there is no place in that future for the archaic practice of live lamb cutting.



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“Yes, it is possible big brands will just walk away from wool [over mulesing], some of them may already be doing that.”

— Jock Laurie, Chairman, Australian Wool Innovation<sup>83</sup>

“We’ve been warned every year that the brands want us to stop mulesing, and the argument is always the same – well, if we stop mulesing the sheep will get flies... But, for me, the simplest option is to breed sheep that don’t have wrinkles around the tail.”

— David Thomas, wool producer<sup>84</sup>



**“We have to seriously phase out the practice of mulesing... It might have been a mistake not to seriously and properly take action 15 to 20 years ago.”**

— Paolo Zegna, Ermenegildo Zegna Group<sup>55</sup>

## **Failing to take responsibility, even now**

In the face of extreme animal cruelty, and an abundantly clear shift in domestic and international consumer expectations, the only responsible step for the Australian wool industry to take is to end live lamb cutting once and for all.

An end to live lamb cutting is the only responsible course of action for sheep, growers, consumers and for brands in Australia and around the world.

Instead, the industry, together with AWEX's SustainaWOOL Integrity Scheme, launched a new label in

2024<sup>85</sup> that enables the continued promotion of wool from sheep subjected to live cutting. Ironically, this new assurance label is called 'ResponsiWOOL.'

AWEX has taken positive steps in the past, including their support to mandate the National Wool Declaration to report on growers' live lamb cutting status. In this instance, however, it defies logic that live lamb cutting can, in 2024, with the existence of proven alternatives, still be included in an integrity scheme.

**“I see with some satisfaction the premium for unmulesed wool is collapsing. Hooray! At last, someone has convinced some in the market that mulesing is actually an ethical and sensible choice.”**

— James Jackson, General Manager of The Woolmark Company (TWC) and Australian Wool Innovation (AWI)<sup>86</sup>



## Taxpayer funds wasted

Despite decades of evidence that a humane, permanent and effective solution exists, AWI has invested and continues to invest large sums of taxpayer money and industry levies in failed attempts to find another answer. AWI has spent more than \$70 million since 2011<sup>87</sup> researching other solutions, including

- Work by the University of Melbourne to map the blowfly genome.
- A four-year \$2.5 million project to test vaccine formulations<sup>88</sup> described by AWI General Manager of Research, Bridget Peachey as “a high-risk project with no guarantee of success.”<sup>89</sup>
- The application of liquid nitrogen and use of breech clips<sup>90</sup>, both of which raise animal welfare and environmental concerns.
- Needleless intradermal injections.
- Chemical treatments for flystrike. Worryingly, blowflies appear to have developed resistance to most current compounds.<sup>91</sup>
- Additional work to genetically modify blowflies by breeding and releasing sterile males to compete with wild fertile blowflies.<sup>92</sup>

This investment could have been valuable, even valiant, if the solution had not already existed and been widely known for decades.

In 2020, AWI was provided with the BG Economics report *Towards a non-mulesed future: Selective breeding to counteract flystrike in Australian Merino sheep*. The report includes accounts of wool producers across Australia who have successfully transitioned to flystrike-resistant sheep and, as a result, no longer perform live lamb cutting. These producers outlined the multiple health, welfare, and economic benefits of doing so.

AWI responded to the report querying how representative the data was. However, even with high access to growers, AWI is yet to conduct any such study themselves, at the scale or composition they had noted was needed. As such, AWI has left a significant gap in the information needed by producers to have the confidence to transition away from the practice.



**\$70 million** spent in flystrike research, when evidence of a humane solution already existed.

**The plan to end live lamb cutting will never be led by those who have a vested interest in it continuing.**

With flystrike representing such an enormous financial cost to the industry and to the Australian public (due to unnecessary research), and a viable, permanent and humane solution already in existence, the question must be asked: ‘why does the Australian wool industry continue to support and invest in live lamb cutting?’

The Australian public want live lamb cutting to end. Consumers increasingly oppose it, and more brands are phasing out wool from live cut lambs. In the face of ever-growing opposition to live lamb cutting, industry leaders continue to enable this mutilation.

AWI states that live lamb cutting offers a “key lifetime sheep welfare tool.” Firstly, it is difficult to reconcile the cruelty and pain inflicted on lambs with the term ‘welfare’. Furthermore, wool producers already have a proven welfare tool at their disposal; one that does not involve slicing large sections of skin off live lambs. AWI claims there is no equally effective alternative to live lamb cutting. Yet there very clearly is.

Australia’s peak wool-growing bodies have demonstrated an abysmal lack of leadership on this issue, sending mixed messages and contradictory signals. Their track record over many decades demonstrates they are manifestly ill-equipped to achieve a nation-wide ban on live lamb cutting.

This may be explained by the extent to which these peak bodies are led by producers that still practice live lamb cutting themselves, or who operate studs that sell sheep with a high wrinkle score and are therefore at risk of flystrike.

**Senator RHIANNON:** Going back to your board, are there any current or past members of the board, or their families or associates that have, or did have, financial interests in the sale of traditional stud breeds which require mulesing?

**Mr Merriman:** I’m one of them—the whole of the industry is like that. The great majority of the industry mules their sheep.<sup>93</sup>

This point was raised in a line of questioning by former NSW MP Senator Lee Rhiannon, speaking to then AWI Chairman Walter Merriman, during a 2017 Senate Estimates hearing at the Rural and Regional Affairs and Transport Legislation Committee.<sup>93</sup>

**AWI POSITION:**

Mulesing remains important for the sustainability of the Australian wool industry because it remains a key lifetime sheep welfare tool for woolgrowers.

In the absence of an equally effective alternative to surgical mulesing for many woolgrowers, AWI supports the option of mulesing with anaesthesia and analgesia to reduce life long risk of breach strike.

AWI continues to invest in research, development, education, extension and communication towards reducing the reliance on mulesing.<sup>98</sup>

“For years, Australian wool industry leaders have dropped the ball on mulesing. It’s obvious they’re stuck in a conflict of interest and can’t lead the industry away from this practice. They’ve also wasted wool grower and taxpayer money looking for a flystrike solution, even though we’ve had one for over 20 years.”

— Don Mudford, Australian wool producer  
(email correspondence, 2024)



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## Pulling the wool over our eyes.

A 2021 independent review of performance of AWI, conducted by Accenture, recommended that AWI commission “an independent report to measure current, and predict future trends, in consumer sentiment towards mulesed wool in relevant global markets. This should include economic modelling to determine the impact of these trends on wool price and production.”<sup>94</sup>

It further recommended that this report be used “to inform AWI RD&E expenditure and assist in communications with both woolgrowers and the supply chain.” Such a report would provide wool producers with vital market insights on current attitudes and predicted trends regarding the demand for ‘non-mulesed’ wool. But, to date, wool producers have been denied this information.

In negotiations between AWI and the Department of Agriculture, Fisheries and Forestry – the substance of which is only known to those parties – an agreement was reached that allowed AWI to change the scope. They chose to focus their research on wider environmental sustainability issues instead of following Accenture’s clear recommendation to investigate live lamb cutting.<sup>95</sup>

The research has since been completed; however, AWI has refused to release the full and final survey report. Wool producers have been left in the dark, prevented from accessing information critical to considering a transition away from live lamb cutting.

### IN 2024 SHEEP CENTRAL REPORTS:

Australia’s Department of Agriculture Fisheries and Forestry has allowed the nation’s wool grower levy funded body to change the scope of a high priority performance review recommendation on consumer attitudes to mulesed wool, denying growers key market knowledge.<sup>95</sup>

# Too little too late. It is time for government action.

The track record of the Australian sheep wool industry and the sheer lack of industry leadership demonstrate beyond doubt that the industry is incapable of independently achieving a nation-wide end to live lamb cutting. The vested interests at play in the wool industry mean that change has not, will not, and cannot be led by the wool industry's peak bodies.

If the decades since the industry promise was made had been used to actually transition to plain-bodied and flystrike-resistant Merinos, flystrike – and therefore the need to undertake live lamb cutting – would already be a thing of the past. Instead, far too many years, as well as grower and taxpayer dollars, have been wasted. In that time, millions of lambs have been mutilated at the hands of an industry that promised to do better.

The Australian wool producers who voluntarily transitioned to flystrike-resistant sheep are reaping the rewards of better animal welfare and greater productivity, plus a premium paid on their wool. But swift and decisive government action is critically needed to ensure that the rest of the Australian wool industry follows suit. This move towards a more humane and sustainable wool industry, one that meets the expectations of the Australian public, is already long overdue.

When an industry demonstrates an inability and unwillingness to stop a practice that causes so much suffering, community concern, and damage to our national

reputation, it is time for governments to step in. It's clear that when some industry leaders have a vested interest in live lamb cutting continuing, real change will only occur when governments intervene.

According to 2018 research commissioned by the Department of Agriculture and Water Resources, the overwhelming majority of Australians (91 per cent) think that the regulations pertaining to animal welfare in agriculture need to be reformed.

Government policy must reflect international best practice and consumer expectations to ensure Australian wool maintains a positive reputation and market share.

**“If animal welfare was regulated properly by the industry and the government, the consumer wouldn't have to make a choice, they would be assured that the animal products they bought had good animal welfare standards.”**

— consumer research participant<sup>42</sup>

**“The Government should be making sure the farmers are doing their job and responsibility isn't being pushed down to the consumer. Regulation needs to be better.”**

— consumer research participant<sup>42</sup>

**The answer is simple.**

**There are two critical steps that must happen to end live lamb cutting once and for all:**

1. The Australian government must provide leadership by facilitating discussion and negotiation to achieve a collective agreement to phase-out live lamb cutting.
2. State and territory governments must legislate a phase-out timeline towards a ban on live lamb cutting and support producers to transition during this period.

The *Australian Animal Welfare Standards and Guidelines for Sheep* provide a set of standards for the welfare of Australian sheep. These standards currently allow for live lamb cutting and the use of pain relief is only mandated in Victoria<sup>96</sup> and Tasmania.<sup>97</sup>

These standards are critical for addressing the suffering caused by live lamb cutting and require an urgent review by federal, state and territory governments to legislate a phase-out by 2030.



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# Conclusion

In 2009, the Australian wool industry broke its promise to end live lamb cutting. The industry failed to achieve the phase-out because, quite simply, it failed to act. This broken promise has failed millions of Australian sheep, and it has failed the Australian public who expect better for our animals.

It is impossible to support the logic, economic viability or ethics of deliberately breeding sheep at risk of flystrike and cutting folds of skin off lambs in an attempt to reduce that risk. The argument for live lamb cutting is even harder to make when the humane solution of breeding flystrike-resistant sheep is already proven to work.

Flystrike costs the Australian wool industry \$323 million annually and results in millions of lambs experiencing severe pain, trauma and stress every year. A humane, permanent and viable solution already exists and producers who have transitioned to flystrike-resistant sheep report benefits including higher productivity, better lambing outcomes, faster growth rates, improved fertility, and better flock health as well as a premium paid for their 'non-mulesed' wool.

While individual producers have responded to the shift in market expectations and transitioned their flocks, industry peak bodies continue to support an archaic and barbaric mutilation that brands and consumers are increasingly refusing to be associated with.

The wool industry's peak bodies have demonstrated that they are either incapable or unwilling to lead a nationwide phase-out of live lamb cutting, despite the promise they made decades ago.

This long track record of failure makes it abundantly clear that this must now be taken out of the hands of those with a vested interest in perpetuating live lamb cutting. The only way forward is for governments to step in and mandate a nationwide end to live lamb cutting in order to meet the expectations of people, consumers and brands in Australia and around the world.

It's time for Australian federal, state and territory governments to provide this missing leadership and mandate a phase-out of live lamb cutting by 2030.



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# Recommendations

## The federal government

- Lead a review of the Australian Animal Welfare Standards and Guidelines for Sheep in conjunction with state and territory governments to introduce a phase-out of live lamb cutting by 2030.

## State and territory governments

- Each state government should legislate a phase-out period and a 2030 ban for live lamb cutting, as well as clear progress targets.
- Until the phase-out takes effect, each jurisdiction should mandate multi-modal best practice pain management for live lamb cutting.
- Work with the federal government on the review of the Australian Animal Welfare Standards and Guidelines for Sheep to introduce a phase-out of live lamb cutting by 2030.
- Regulate the revised Australian Animal Welfare Standards and Guidelines for Sheep and the phase-out of live lamb cutting under state legislation.

## Australian wool industry

- Develop a joint statement endorsing the use of flystrike-resistant sheep types as the ultimate goal of the industry to mitigate flystrike, underscored by open and transparent information about market demand and economic opportunities of transitioning to flystrike-resistant sheep types.
- Engage growers with accessible on-farm extension programmes, that suit their individual needs, to support transition. Collaboration with governments to provide producers with one-on-one livestock consultant guidance if needed.
- Stop promoting wool from sheep subjected to live lamb cutting as a high welfare product, i.e. under the ResponsiWOOL scheme.

## Brands and retailers sourcing Australian wool

- Only purchase wool from sheep not subjected to live lamb cutting and clearly convey this policy to relevant suppliers and consumers.
- Sign the FOUR PAWS brand letter of intent indicating your commitment to sourcing wool only from sheep not subjected to live cutting by a set date. In doing so, your brand would qualify to be featured in HSI Australia's Better Wool Guide and the top tiers of FOUR PAWS Wear It Kind Directory.

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# Timeline

Year	Event
1880s	Import of highly wrinkled Vermont sheep into Australia begins.
1890s	The blowfly arrives in Australia, taking 40 years to spread across all states.
1929	Live lamb cutting (mulesing) first documented by wool producer John W. H. Mules.
1930s	Research shows that highly wrinkled sheep are more susceptible to flystrike.
1970s	CSIRO scientist Dr Jim Watts begins research into reducing risk of flystrike through selective breeding for plain-bodied sheep.
1998	Dr Jim Watts starts a plain-bodied sheep breeding company.
2004	PETA's 'Save the Sheep' campaign launches. More than 60 European retailers boycott wool taken from sheep who have been subjected to live cutting.
2004	The Australian wool industry, through Australian Wool Innovation Ltd (AWI), announces that it would phase out mulesing by the end of 2010.
2006	AWI commences legal proceedings against PETA and Animal Liberation
2007	PETA & AWI reach an agreement in court. PETA agree to cease their boycott, AWI agree to ban live lamb cutting by December 2010.
2008	Dr Jim Watts launches SRS® (Soft Rolling Skin®), a genetic solution for preventing flystrike.
2009	AWI admits that the industry is unlikely to achieve the agreed 2010 deadline – the broken promise.
2009	Fashion chains threaten to boycott Australian wool.
2010	The December deadline to end live lamb cutting passes. Live lamb cutting continues.
2018	New Zealand bans live lamb cutting (mulesing).
2020	BG Economic analysis report highlights the economic advantages of smooth-bodied sheep in non-mulesing enterprises (AWI rejects the study but have not undertaken anything similar themselves).
2021	RSPCA, FOUR PAWS and HSI Australia form a coalition against live lamb cutting.
2024	Almost 90 brands including Adidas, Zara, Hugo Boss, Marks & Spencers and Icebreaker co-sign a letter calling on the Australian wool industry to transition away from live lamb cutting.
2024	Twenty-year anniversary of the Australian wool industry's broken promise.

# Notes

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