



TRANSITIONING AWAY FROM MULESED SHEEP WOOL

A guide for brands
and retailers on
why and how

“*FOUR PAWS invites brands along the journey towards a mulesed-free wool supply chain. At the request of brands, we’ve put this guidebook together, which combines science, brand insights as well as information about the available solutions into one place.*”

- Nina Jamal, FOUR PAWS

“*At Patagonia, we believe that animal welfare is a fundamental consideration when choosing the materials we use in our products. It is not acceptable for animals to suffer in the name of performance, luxury or fashion. That’s why Patagonia played an active role in developing and supporting initiatives that enable us as well as other brands to source wool that is mulesed-free, traceable and third party certified. We encourage the industry to get behind mulesed-free wool and benefit from available guidance and experience of stakeholders that have become mulesed-free to achieve a more ethical supply chain.*”

- Nicholas Allen, Patagonia¹

“*Country Road Group and David Jones have been working closely with industry and key experts in animal welfare to better understand how best to improve standards across the wool supply chain and support the future of responsible farming. FOUR PAWS Australia has offered ongoing guidance and input throughout this process, and we are proud of this display of cross sector collaboration.*”

- Eloise Bishop, Country Road Group and David Jones²

Contact

VIER PFOTEN International

Linke Wienzeile 236

A-1150 Vienna

Tel.: +43/1/545 50 20-0

Fax: +43/1/545 50 20-99

E: textiles@four-paws.org

FOUR PAWS is an international animal welfare organisation with headquarters in Vienna, Austria, and offices in 14 other countries, including Sydney, Australia. Founded by Heli Dungler in 1988, the organisation strives to help animals in need with sustainable campaigns and projects.

FOUR PAWS focuses on animals that are directly under human influence, for example stray dogs and stray cats, farm animals, companion animals and wild animals kept in inappropriate conditions. FOUR PAWS aims to help animals in need directly and quickly.

FOUR PAWS has achieved many lasting improvements for animals used within the textiles industry. In recent years this includes:

- Working with the European bedding industry to lead a successful industry wide transition away from the down of live plucked and force-fed ducks and geese.
- Continued support of the highly successful Fur Free Retailer program, a network of over 1,000 brands and retailers who stand united in their commitment against fur.
- Assisting the development of animal welfare certification systems, such as the Responsible Down Standard and the Responsible Wool standard.

Our vision is a world where humans treat animals with respect, empathy and understanding.

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Contents

02

Overview

03

The problem

- » What is flystrike?
- » What is mulesing?
- » Why mulesing is a problem for lambs
- » Mulesing with pain relief is not an adequate solution
- » Why mulesing continues

07

The risk

- » Why mulesing is a problem for the fashion industry
- » Turning risk into opportunity
- » Meet the brands using mulesed-free wool
 - Esprit
 - Kathmandu
 - H&M

12

The alternatives

- » The alternatives to mulesing
- » Meet the producers taking a new approach

18

What brands can do

- » Three steps to change
- » Support available to help brands transition away from mulesed wool
- » An overview of the wool sheep welfare assurance initiatives

22

Brands are an essential part of the solution

A photograph of a woman with long brown hair, wearing a grey long-sleeved shirt, black pants, and black sneakers, standing in a clothing store. She is looking at a rack of clothes. The store has wooden floors, a large window in the background, and various clothing items hanging on racks. A white text box is overlaid on the top left of the image.

“It’s an exciting time for brands to take a stand on animal welfare; in fact, consumers are demanding it!”

- Madelene Ericsson, Sustainability Business Expert, H&M group³

Source: Unsplash

OVERVIEW

Consumers are becoming increasingly aware and concerned about the welfare of animals used by industry. Such concern extends to animals farmed for fibre, and the controversial animal mutilation practice of mulesing is a key issue.⁴



A 2017 report found that 1 in 2 people will choose, switch, avoid or boycott a brand based on its stand on societal issues.⁵

Due to the growing concern from consumers, over 100 retailers and brands have now committed to transitioning away from mulesed wool.^{6,7} This demand is also reflected by the growth in demand for non-mulesed wool and premiums which have doubled from 2016 to 2018.⁸

Despite this, the Australian wool industry, which produces 90% of the world’s fine wool, and 75% of all apparel wool, is not adapting at the same pace.^{9,10} Unlike other wool producing countries, such as New Zealand and Argentina, mulesing remains widespread in Australia.^{11,12}

Brands and retailers have the power to influence the Australian wool industry and ensure better animal welfare is at the top of the agenda. With the right information at hand, brands and retailers can take proactive steps to avoid mulesed sheep wool and effectively communicate a stance towards animal protection to consumers.

FOUR PAWS has developed this guide to assist brands and retailers like yours, because you are a crucial part of the solution to transitioning towards an industry that better values the wellbeing of animals. Alongside information about mulesed-free wool assurance initiatives, you’ll be introduced to fellow brands and producers who have started the journey away from mulesed wool.

To develop this guide, FOUR PAWS consulted with fashion brands, Australian wool producers and sheep breeders, active members of the animal welfare and agricultural scientific community, the wool and sheep industry including Australian Wool Innovation and Woolmark, International Wool Trade Organisation (IWTO), the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and several animal protection organisations.

THE PROBLEM

There is a longstanding notion that the more wrinkles (excess skin) a sheep has, the more wool, and of higher quality, the sheep will produce.¹³ Unfortunately, this focus on selecting for increasingly wrinkled skin, has also created an animal who is highly susceptible to flystrike.¹⁴

Since their introduction to Australia in the 1790s, the merino sheep has been selectively bred to increase its wool production.¹⁵ Combined with the later introduction of the highly-wrinkled Vermont merino, selecting for high wrinkle became a mainstream practice.¹⁶

By the 1930s, flystrike had become a serious problem for Australian sheep due to the combination of breeding practices, a warm climate, inadequate monitoring, as well as the presence of blowfly *Lucilia Cuprina*.^{17,18,19}



What is flystrike?

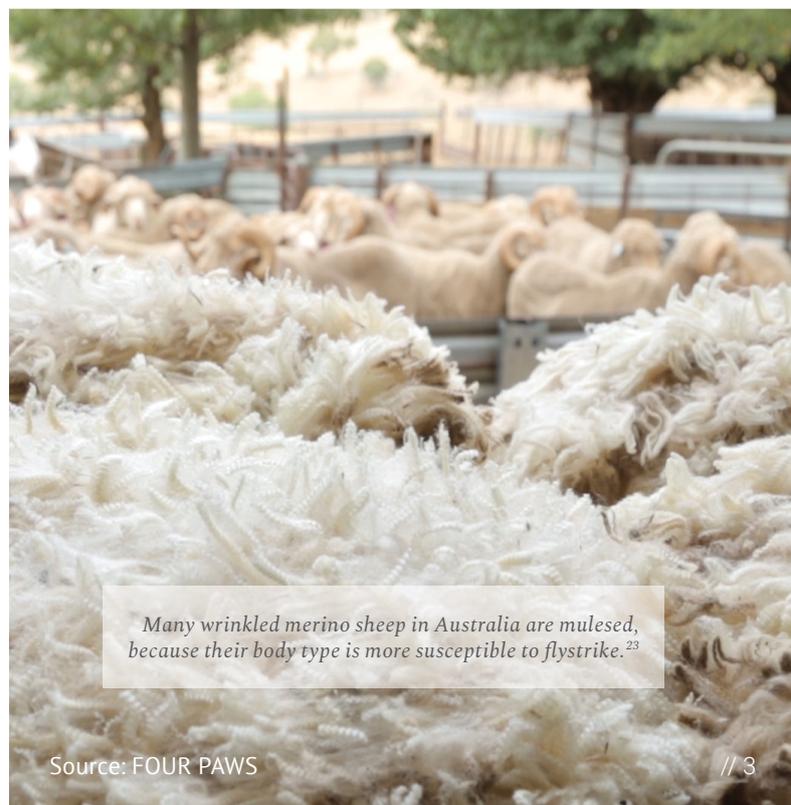
Flystrike in sheep begins when blowflies lay their eggs on sheep. Blowflies are particularly attracted to wool stained with faeces and urine, as the subsequent skin irritations create the ideal environment for laying eggs.²⁰ The areas primarily affected are around the hindquarters, and mostly in the area known as the 'breach' of a sheep.²¹

After hatching, maggots bury themselves into the skin and flesh, and sheep can quickly become infested. These maggots can create wounds that, if left undetected and untreated, can lead to debilitating pain and even death.²²

Several factors contribute to flystrike risk, these include:

- animals having skin wrinkles,
- faeces in the breach wool, and
- urine in the breach wool.²³

Warning the next page contains graphic images →



Many wrinkled merino sheep in Australia are mulesed, because their body type is more susceptible to flystrike.²³



What is mulesing?

In response to regular outbreaks of flystrike, in the 1920s John Mules developed a quick and cheap technique to reduce flystrike risk; the mutilation practice mulesing.²⁴

The process of mulesing generally entails the restraint of two to 10-week-old lambs, on their back in a metal cradle, while strips of skin around their breech and tail stumps are cut away by sharp shears.²⁵ Once the wound heals, the scar tissue left behind reduces the amount of wool and wrinkles around the area.²⁶

Mulesing is not commonly used in any other country; and Australia's neighbour New Zealand has made the practice illegal.²⁷ In Australia however, it is entirely legal to perform mulesing with or without the use of pain relief.^{28,29} While there is a lack of clear data available in relation to the proportion of lambs mulesed annually, the number is estimated to be over ten million.^{30,31}

 **Learn about the impacts of mulesing over the page** →



Source: Anthony Pancia for ABC Rural



Source: RTL.DE

Why mulesing is a problem for lambs

A

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

B

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

E

Even after all the **suffering**, mulesing does not fully eliminate flystrike.

D

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



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).

Mulesing causes intense pain

Of all the mutilations sheep face throughout their lives including tail docking and castration, mulesing is arguably the most controversial. Why? Because of the duration and intensity of suffering caused, particularly when flystrike can be managed in pain-free ways.^{32,33,34}

The pain caused by mulesing is acute and can last up to three days.³⁵ The impacts of mulesing are so intense that lambs can go into a state of shock, stand immobile and hunched following the procedure, leaving a wound that takes weeks to heal, and for some lambs the procedure can be fatal.^{36,37,38,39}

Researchers have further documented the extreme pain experienced by mulesed lambs, noting both elevated cortisol levels and behavioural indicators abnormal to healthy lambs.⁴⁰ Such behaviours include a lowered head with noses almost touching the ground, sudden bolting and an unusually stiff walk.⁴¹ In addition, lambs will actively avoid the person who mulesed them for up to five weeks.⁴²

Mulesing causes fear and stress

The intense stress experienced during and after the procedure by lambs has been thoroughly documented.⁴³ There is also industry wide recognition that lambs, after being mulesed, can lose weight and physical condition.⁴⁴

Mulesing does not eliminate flystrike

Mulesing alone does not give susceptible sheep adequate protection against flystrike.⁴⁵ Mulesed sheep can often still be struck on other parts of their bodies, this is known as body strike.⁴⁶

“..mulesing won't stop the problem completely. We've had sheep with flystrike on their shoulder and on their head.”

- Sarah Calvert, wool grower Northern New South Wales.⁴⁷



Mulesing with pain relief is not an adequate solution

The Australian wool industry does not routinely provide adequate pain relief to cover the acute pain experienced during the surgery itself, meaning significant pain is still felt by the lambs. Post-procedure, lambs can still be seen standing hunched and immobile, alongside other indicators of pain.⁴⁸

Best practice for any kind of surgery and any form of mutilation is to provide general anesthesia, as well as post pain relief, and drugs to reduce the inflammatory response.

This is currently not happening, and therefore will not address the concerns of animal protection groups nor shoppers.

FOUR PAWS welcomes a legally binding commitment to pain-relief during mulesing, however it should only be considered as an interim measure.

It is encouraged that brands take a proactive approach to communicate with their supply chains that mulesing with pain relief can only be an interim measure.

Why mulesing continues

The following infographic gathers information from a range of primary and secondary sources and is largely based on in-person interviews. This research demonstrates the power that brands have in leading and moving the industry towards being kinder to animals.

Brands

one



By continuing to sell garments made from mulesed sheep wool, brands are perpetuating the continuation of mulesing.

two



There is only a small number of brands that label the mulesing status on their garments. This prevents consumers from making an informed decision at the point of sale.

three



Many brands do not have a clearly articulated position on mulesing, nor a time-bound mulesed wool phase out target.

four



Brands are not yet dedicating enough time to consulting with and motivating their supply chain to change.

Wool Industry

one

Lack of awareness, confidence and motivation



- Many producers perceive mulesing to be the most effective, cost-efficient and quickest way to manage flystrike.⁴⁹
- Wool prices and demand for wool are currently strong, and non-mulesed price premiums may not be widely known to the individual producer.
- Despite a significant number of Australian producers having ended mulesing, deep and wide-spread knowledge of and trust in the alternatives to mulesing may be lacking.

two

Tradition and social pressure



- It is almost a tradition in Australia for producers to grow wrinkly sheep who 'need' mulesing, and they may continue the practise to avoid being socially ostracised.^{50,51}
- Producers may not wish to disrupt the often long-term relationships with mulesing contractors and/or their breeders, who may only produce sheep types that are susceptible to flystrike.

three

Limited leadership and support



- Lack of political and industry leadership limiting progress to change.⁵²

THE RISK



Mulesing is a problem for the fashion industry

In the early 2000s, animal protection campaigns by animal protection organisations including People for the Ethical Treatment of Animals (PETA) and Animal Liberation, largely drove the heightened awareness of mulesing that we continue to see today.⁵³ These campaigns sent shock waves through the fashion world and in 2004 up to 60 brands threatened to boycott Australian wool.⁵⁴

The Australian wool industry's leading body, Australian Wool Innovation (AWI), responded with a commitment to phase-out mulesing by 2010.⁵⁵ A year before the deadline however, AWI went back on their word, stating that the industry would phase out the practice in its own time.⁵⁶ Despite the failed industry commitment, mulesing is once again gaining consumer attention, especially as interest in ethical consumption and sustainable fashion continues to expand.⁵⁷

Another initiative, the Business Benchmark on Farm Animal Welfare (BBFAW) is a tool primarily used by investors to evaluate companies according to their animal welfare practices. According to the BBFAW, companies that have a higher animal welfare standard avoid routine animal mutilation procedures, such as mulesing.⁵⁹

“In the same way good practices in human rights result in stronger businesses, similar links are ever more apparent between strong animal welfare practices being simply good business, and those businesses making better investment opportunities.”

- Simon O'Connor, CEO of the Responsible Investment Association of Australasia.⁶⁰



Corporate Social Responsibility (CSR) and animal welfare

The relationship between animal welfare, business profitability and risk, has been the focus of many think tanks and research projects. The Farm Animal Investment Risk & Return (FAIRR) initiative, a global investor network with more than \$8 trillion in supporting assets, recently identified 28 financial risks associated with the factory farming industry - refer to FAIRR's graph on the right.⁵⁸ They found that processes and policies which do not address animal welfare could present risks that impact on a business's production, reputation, market access, or cause other regulatory restriction. Within the scope of CSR, it is conceivable that the same risks are present in the wool industry.



Meet the brands turning risk into opportunity

“There shall be no mulesing of sheep used for wool production destined for VF products.”

- VF Corp⁶¹

“Animal welfare has become very important. We’ve banned mulesing from our suppliers and we just won’t work with any growers who do that.”

- Jeremy Moon, founder of New Zealand brand Icebreaker⁶³

“By 2025 100% of our wool will be sourced in line with industry best practice, such as the Responsible Wool Standard (RWS).”

- Bestseller⁶⁵

“To promote animal welfare, UNIQLO is abolishing merino wool suppliers who source from farmers practicing mulesing.”

- Uniqlo⁶²

“We require vendors to provide us only with non-mulesed wool, and require that all supplies disclose their country of origin and their suppliers of wool fibre. We continually evolve our traceability requirements of animal-based materials and are transitioning to 100% non-mulesed wool.”

- Lululemon⁶⁴

“The long-term contracts we offer for non-mulesed wool give security to both parties and create a strong relationship between brand and farmers. To be willing to change the own way of thinking and acting has always been our key to innovation.”

- Stefan Krause, Head of Product, ORTOVOX⁶⁶



Alongside those quoted above, Marks & Spencer, Hugo Boss, Ortovox, H&M and more than 100 other brands have committed to the phasing out of mulesed sheep wool.⁶⁷

Most of these brands cater to consumers across Australia, Europe and the United States, some of the biggest consumer markets for Australian wool.⁶⁸ With the growing concern for animal welfare, especially noted within these regions, and since consumer spending on wool is both largely discretionary and strongly linked to consumer confidence, it makes business sense to prioritise responsible sourcing.^{69,70}

“Consumers are increasingly seeking ethical fashion options, and this includes animal welfare. Mulesing continues to be top of mind for many consumers, and there’s a real opportunity for brands and retailers to capitalise on this gap in the marketplace.”

- Gordon Renouff Co-Founder, Good On You⁷¹

Aside from risks to consumer confidence, poor ethical practices ultimately pose a threat to the level of investor interest and potentially the share price of a

business. With these factors in mind, it is no surprise that premiums for mulesed-free wool are increasing as brands cultivate a growing supply.⁷² However providing incentives to ensure supply, is not the only way to achieve it.

“The wool consumer is increasingly demanding a higher level of traceability along the pipeline of the production system from which they buy. Not only does the product need to be of the highest quality, there also needs to be a compelling story behind the product clearly showing the highest level of environmental and social sustainability and animal welfare.”

- Andrew Blanch, Managing Director of New England Wool⁷³

Tips from brands making the transition over the page →



H&M group uses mulesed-free wool

The H&M group encompasses well-known and popular brands such as H&M, COS, Monki and Arket, among others. The group have an animal welfare policy covering all animal derived materials used by the group and in 2008, they banned mulesed wool.

Today, H&M requires all wool originating from Australia to be declared via the National Wool Declaration as Non-Mulesed or Ceased-Mulesed wool, until they reach their goal of 100% RWS certified wool.

The beginnings of the RWS

H&M group initiated the development of the RWS together with Textile Exchange back in 2014, due to a lack of robust international standards around at that time.

“We felt an increased need to secure the wool in the products from both an animal welfare and environmental perspective but at that time, there was not so many options around, other than a few local initiatives. Since there are a lot of other animal welfare issues to be addressed on farm level apart from mulesing, it became an issue we had to solve.”

- H&M group Sustainability business expert on ethical sourcing, Madelene Ericsson⁷⁴

But the real hands-on process started in 2016 when the standard was launched. H&M group began to introduce the standard to their key wool product suppliers and engaged each part of the supply chain step by step, through networking and trainings. At the same time, they also set a clear goal for the entire H&M group to clearly show their ambition. This was key to a speedy uptake.

By 2022 H&M group aims for all virgin wool sales to be 100% RWS certified.

Challenges and advice

H&M group's main challenge with RWS in the beginning was availability.

“We really wanted to have certified wool earlier, but there was very little quantity available and no workable prices at that time. Rising prices on conventional wool globally also made it more difficult to also add the RWS upcharge and keep the internal buying surge. Additionally, there was quality concerns due to change of source origin.”

The chain of custody system that is part of the RWS certification was an important factor for H&M, however their supply chain preferred the mass balance system.

“Another challenge was that we had to push for chain of custody (CoC). We really want to be able to talk about the RWS wool in connection to the products, so there was some challenge in persuading all parts of supply chain on getting CoC.”

To help their supply chain comply with the RWS – and specifically the chain of custody system, H&M group needed to give them time to adjust, while remaining firm and clear that this was their new direction. Today, implementing the RWS for many of their supply chain partners has simply become business as usual.

As a learning from the last years of sourcing RWS wool, H&M group recommends:

- Firstly, gaining internal back up, setting a goal, and communicating it both internally and externally.
- Building your connections around the supply chain, including within the upstream supply chain,
- Working closely with your suppliers to manage obstacles like changing lead times.

The very first RWS certified products for H&M group were launched through their brand Arket during fall 2018.

“RWS is definitely one of those things that we are extra proud to have been part of, and we are thrilled to see other brands now seeking RWS certified wool as well. You realize that together we can make improvements in an entire industry.”

Arket jumper made of Australian and Urugayan RWS-certified wool.

Source: Arket





Esprit uses mulesed-free wool

International fashion brand Esprit is widely known for its strong, positive stance towards sustainability. Esprit was one of the first brands to offer products made of organic cotton in the 1980s and has now also achieved several milestones in animal welfare. Esprit's animal welfare policy includes a range of animal derived textiles including sheep wool, down and fur.

With regards to wool, Esprit's animal welfare policy states that the organisation will only use non-mulesed sheep wool, despite around 20% originating from Australia. To help ensure the wool coming from Australia is non-mulesed, Esprit has defined two key strategies.

1. By developing an in-house traceability system

While RWS certified supply from Australia is growing, Esprit has designed an in-house traceability system based on the National Wool Declaration (NWD) and the Australian Wool Testing Authority certificates. Assurances are made to Esprit in the form of PDF-certificates from the garment supplier. Esprit files and reviews these, ensuring the weight received corresponds with the purchasing order. Esprit acknowledges the limitations of this system.

2. Committing to the Responsible Wool standards

Esprit has been certified by the Responsible Wool Standards (RWS) and seeks wool from producers who are also RWS certified. Esprit has found that RWS wool automatically comes with a clear chain of custody, therefore requiring less administration.

Esprit has tried to coordinate direct farm partnerships in the past, however felt that their wool volume purchase is too low to establish a sustainable long-term relationship with farms directly.

At an early stage, Esprit started a dialogue with their suppliers to discuss the sourcing of non-mulesed wool and encourages them to become RWS certified. Esprit as a brand is committed to sourcing only non-mulesed wool and wants to see mulesing come to an end.



Source: Shutterstock.com

“Esprit is currently challenged to find enough of the right RWS certified wool, therefore we are encouraging producers to become certified. To fill the void we have set out clear commitments with each supplier. We’re also seeking wool from other low-risk countries (in relation to mulesing).”

By 2022 50% of our wool products are planned to be RWS-certified. We encourage our key suppliers of wool styles to move forward with certification. Setting clear targets around our wool certification systems, the RWS and ensuring transparency with our consumers, were our natural first steps.”⁷⁵

*- Kristina Seidler-Lynders
Environmental Sustainability Specialist, Esprit*

Kathmandu uses mulesed-free wool

Well-known outdoor brand based out of New Zealand – Kathmandu, has made several public commitments to continually improve their sourcing and sustainability practices.

Kathmandu uses a substantial volume of merino wool in their products, most of which is grown on Australian farms. Their team is aware of the welfare issues involved in merino wool production and is committed to continuing to source only mulesed-free merino wool.

The collaboration between Kathmandu and the Responsible Wool Standard (RWS) has continued for some years. While progress in terms of sourcing RWS certified wool has been challenging due to limited availability, Kathmandu is making headway, sending a clear signal to growers that this certification is becoming increasingly desired. The Kathmandu team worked very closely with their supply chain partners, moving RWS certified merino from farmer groups, to top makers, spinners, knitters and finally their garment producer.

“We kicked off the pilot program in April 2016 when we visited our supply chain partners in Asia – top maker, spinners and knitters. Having undertaken 100% RDS (Responsible Down Standards) rollout across 100% of our product range, it meant that we had lots of learnings and understanding of challenges from a supply chain perspective. We had therefore designed our pilot program more around educating our supply chain; as that’s what we believed in for this pilot to be successful. We wanted the suppliers to tell us that yes it is the right thing to do rather than the other way around.

We understood quite early that the biggest hurdle would be on supply availability and prices. To alleviate this, we were focussed from the start on only converting a part of our merino range, and therefore exactly knew how much annual units we would buy, what would be the exact tonnes of RWS merino – bespoke quality, micron etc. required.

The drive to change needed to come from them and it did. We spent close to 60-70% of our time on this engagement/education part of the whole product development process through numerous on-site visits, office meetings, correspondences etc, asking them to be part of this journey where the destination – how/when was still unknown.

Commitment signals were passed onto all parts of the supply chain quite early and we were also supporting them through separate dialogues with farmer groups in AU/NZ and with Textile Exchange. Information flow was also key as whatever updates we had were also shared with the supply chain at the same time and vice versa. All the hard work was done by our supply chain partners and kudos to them; they are our real champions of change. We will be launching RWS certified products in stores in 2019 and are striving to get the rest of our merino range to be RWS certified as well.”⁷⁶

- Manu Rastogi, Textile R&D and Responsible Materials Manager, Kathmandu

Until all of Kathmandu’s products are RWS certified, the team also rely on the National Wool Declaration and Australian Wool Testing Authority certificates and check these and the volumes purchased against the volumes used within the garments they receive.



Source: Kathmandu

THE ALTERNATIVES



The alternatives to mulesing

While Australia may currently lack the leadership to drive an industry-wide ban on mulesing, the amount of mulesed-free wool being produced is slowly increasing.

A combination of alternative management practices are being adopted by producers to manage flystrike, and for many it is as simple as changing the type of sheep they keep.

“The first, and I would argue the most important issue to consider, is the genetic makeup of one’s sheep. It is well established from both research and every day 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 Stud⁷⁷

The most effective, ethical and sustainable way to help manage flystrike is to combine good management

techniques with good genetics.⁷⁸ Animal protection groups are calling on producers to raise naturally flystrike resistant sheep, animals who are wrinkle-free, ‘smooth bodied’ or ‘plain’ bodied, and ideally are bare breeched (lack wool around their anus).^{79,80,81,82}

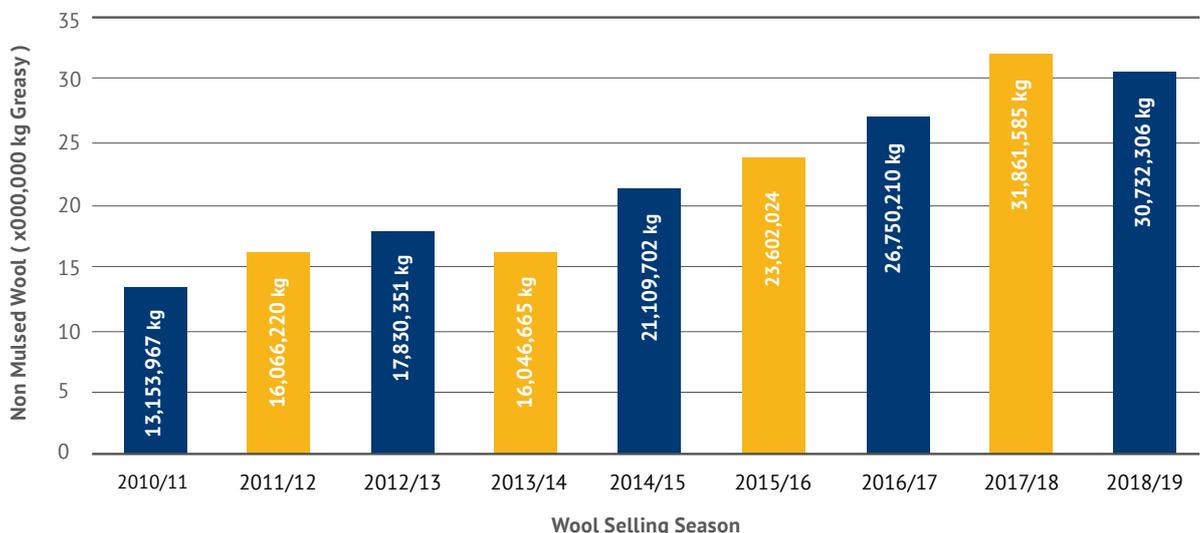
By implementing effective targeted breeding programs, it is possible to transition a flock of wrinkled sheep to one with these characteristics in less than five years.^{83,84} The timeframe however, is largely dependent on the type of sheep producers have to begin with, their capabilities, motivation, and their access to resources and support.^{85,86}

“There are many ways to manage flystrike that don’t include mulesing. By far the most economically efficient way is to grow wool from plain-bodied, flystrike resistant sheep. It’s a genetic solution, which can be applied within any area of Australia and has the best animal welfare outcomes. It’s about time Australia joined the 21st Century and ended mulesing once and for all.”

- Charles Massy, BSc., PhD and recipient of an Order of Australia Medal for his service as Chair and Director of a number of research organisations and statutory wool boards.⁸⁷

The increase in mulesed-free wool production.

Australian Non-Mulesed Wool Supply⁸⁸
(first-hand offerd, sold at auction, kg greasy)



Note, the reduction in mulesed-free wool in 2018/19 is likely due to the overall decline in Australian wool production.

Sheep type plays a key role in managing flystrike

Flystrike resistant body types could be grouped into two broad categories:

1. What FOUR PAWS considers ‘**Smooth bodied**’ – these are wrinkle free sheep, with a thin and loose skin type, indicative of high density and a longer length of wool fibres.⁸⁹

With effort also put into encouraging a bare breech and/or the use of other management practices such as crutching (shearing wool around the breech), smooth bodied sheep are known to be naturally flystrike resistant and according to producers, have a low to nil dependence on insecticides.^{90,91,92}

2. ‘**Plain bodied**’ wrinkle free sheep, who may have a thicker skin type.

Depending on the characteristics, environment and/or management practices of flocks in this group, management techniques such as the use of insecticides, additional crutching, careful pasture management, well timed shearing, and/or more thorough monitoring may also be required.^{93,94}

While it may be possible to avoid mulesing and continue to use flystrike susceptible/wrinkly sheep in some areas, these animals are at high risk.⁹⁵

Smooth and plain bodied sheep provide a sustainable solution to flystrike

Several producers are striving for and achieving flystrike resistant qualities in their flocks, while claiming improvement in several welfare indicators. One example is the Soft Rolling Skin (SRS) group, with 30 studs across Australia, supplying over 1,000 farms.⁹⁶ SRS breeders follow a set of breeding principles developed by former CSIRO scientist Dr Jim Watts.⁹⁷

“Non-mulesed Merino sheep are already out there in large numbers, are naturally resistant to all forms of flystrike including the most severe, and body strike outbreaks during wet summers. There is no reduction in wool quality or quantity, in fact we have observed improvements, and definitely the environmental fitness and fecundity of these animals has improved.”

- Dr Jim Watts, founder of SRS Merino⁹⁸

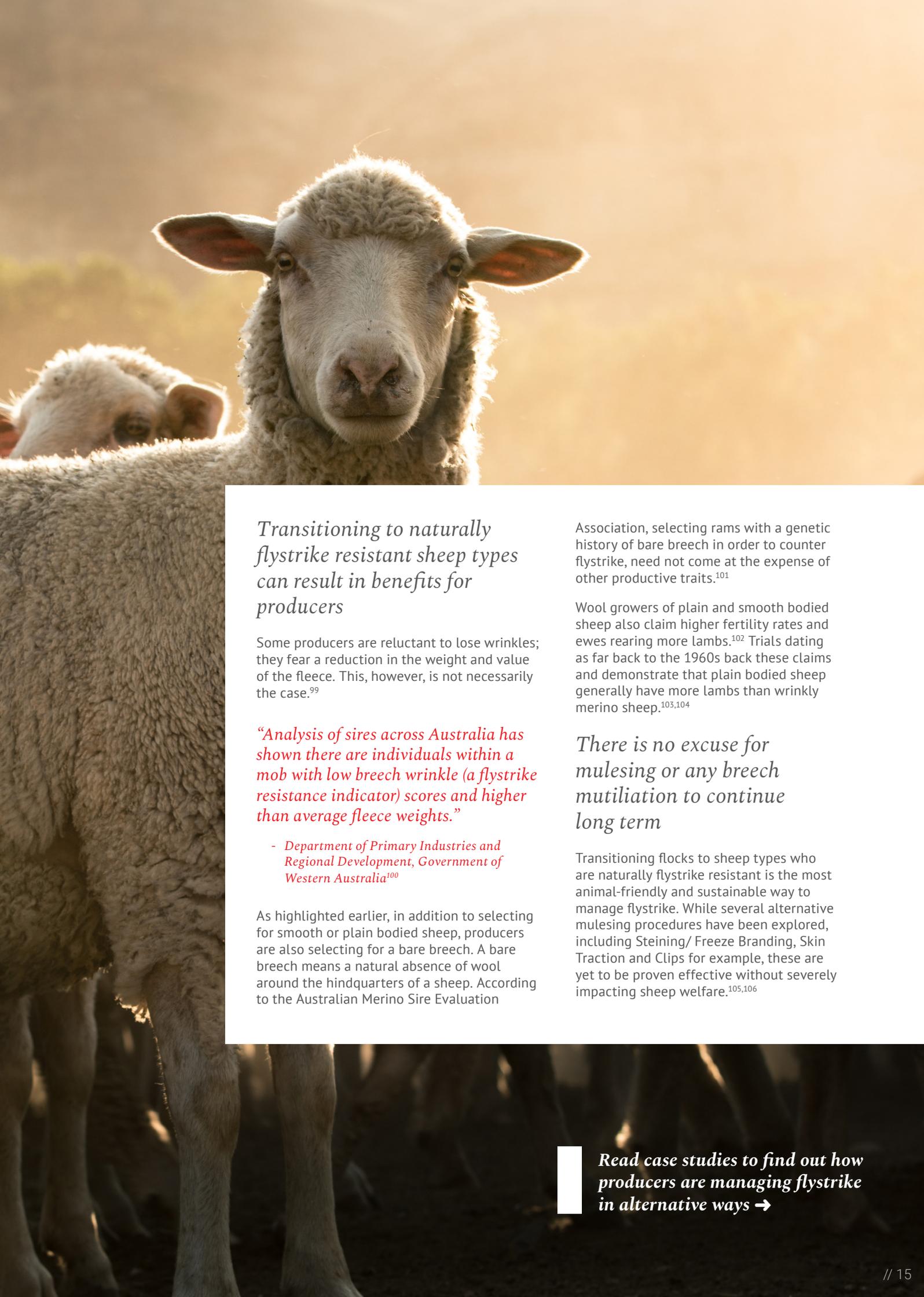
The image below was taken shortly after shearing and clearly depicts the wrinkly vs. smooth sheep skin types.
Source: Dr. Jim Watts of SRS Merino.



Research has shown that it is possible to successfully manage non-mulesed sheep with little extra time or cost.”

- Department of Primary Industries and Regional Development, Western Australia





Transitioning to naturally flystrike resistant sheep types can result in benefits for producers

Some producers are reluctant to lose wrinkles; they fear a reduction in the weight and value of the fleece. This, however, is not necessarily the case.⁹⁹

“Analysis of sires across Australia has shown there are individuals within a mob with low breech wrinkle (a flystrike resistance indicator) scores and higher than average fleece weights.”

- Department of Primary Industries and Regional Development, Government of Western Australia¹⁰⁰

As highlighted earlier, in addition to selecting for smooth or plain bodied sheep, producers are also selecting for a bare breech. A bare breech means a natural absence of wool around the hindquarters of a sheep. According to the Australian Merino Sire Evaluation

Association, selecting rams with a genetic history of bare breech in order to counter flystrike, need not come at the expense of other productive traits.¹⁰¹

Wool growers of plain and smooth bodied sheep also claim higher fertility rates and ewes rearing more lambs.¹⁰² Trials dating as far back to the 1960s back these claims and demonstrate that plain bodied sheep generally have more lambs than wrinkly merino sheep.^{103,104}

There is no excuse for mulesing or any breech mutilation to continue long term

Transitioning flocks to sheep types who are naturally flystrike resistant is the most animal-friendly and sustainable way to manage flystrike. While several alternative mulesing procedures have been explored, including Steining/ Freeze Branding, Skin Traction and Clips for example, these are yet to be proven effective without severely impacting sheep welfare.^{105,106}

Read case studies to find out how producers are managing flystrike in alternative ways →

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## Producers taking a new approach

### *An interview with Ashley Penfold, Arcadia Farms*



Source: Arcadia Farms

#### *When did you stop mulesing?*

In 2012, after branching out from my family's farming operation and establishing my own business with my wife, Katie.

#### *Why did you stop?*

I had taken over managing the sheep breeding program in my family's operation a few years prior, with a mind to breeding sheep better suited to our environment. And naturally, I wanted to achieve this without compromising quality, but preferably while reducing production costs. I quickly realised that I needed to breed sheep that required less husbandry, but were nevertheless robust enough to survive, and thrive, in sometimes harsh conditions. It was obvious to me that I needed to breed sheep that do not require mulesing. And basically, once I was out on my own, I was able to class my flock as I saw fit. I was very conscious about selecting for bare breeches and made a deliberate decision to cease mulesing that year. As much as possible, I like to involve my wife and children in the day to day running of the farm. However, mulesing is not a job I ever enjoyed, and certainly not one that I ever wanted to involve them in.

#### *How long did it take you to transition away from mulesing?*

Difficult to say really because my decision to cease mulesing was influenced by external factors. But, realistically it only takes perhaps two generations of breeding, using the right genetics, to transition away from mulesing.

#### *How did you achieve this?*

By consciously making the choice to select those sheep that were inherently predisposed to bare breeches and building my breeding program around them.

#### *How do you manage flystrike today?*

Thankfully, it is very rare that one of my sheep would be struck by blowflies. And, if one is I usually discover that that sheep is in my flock and does not exhibit the traits ie the bare breech as markedly as the stud sheep do. Such sheep are generally culled during routine classing. Obviously, I monitor the sheep for flystrike and treat if required, but I do not use a preventative, in fact, we use less chemicals than when we mulesed.

#### *Do you grow the same amount and quality of wool?*

I truly believe that my sheep produce far superior wool, more efficiently, than that of the traditional, heavy-skinned mulesed merino. There will always be sheep that are fed high protein diets and that are housed that will produce incredible fleece weights, and this will be promoted as the norm. In reality, I can confidently say that on average my sheep produce as much, if not more, higher quality wool than the traditional merino when exposed to the same environmental conditions

#### *What are some of the other benefits of transitioning away from mulesing?*

Straight up, there are less production costs in labour and chemicals. Already, some wool buyers are paying a premium for non-mulesed wool. We suffer far fewer losses at lamb-marking time, far fewer losses to flystrike across the life of the sheep. And we have eliminated, quite frankly, what is an unpleasant experience for both lamb and farmer from our operation. Shearers appreciate it too as these plain-bodied sheep are much easier to shear and are virtually free from cuts and nicks. We truly have the best interests of the sheep at heart.

#### *Do you feel the level of flystrike your sheep are experiencing today, is better or worse, now that you have stopped mulesing?*

Better, without question.<sup>107</sup>

## *Errol Brumpton, Well Gully Merino*

Well Gully Merino is located 24km north of Mitchell in sub-tropical southwest Queensland. Since the early 1970s, when he witnessed flood-stranded sheep dying in droves from flystrike, merino stud breeder, Errol Brumpton (shown below with 18-micron wool), has been breeding sheep for flystrike resistance and supplying producers right across Australia.

The climate where Errol and his wife Candy operate their 2,400 hectare grazing operation swings between extremes: a hot, humid summer of up to 48 degrees Celsius drops to a cold frosty winter.

“I’ve found that if there is anything wrong with the skin structure of the sheep in this climate they will definitely get body struck in the summer months. Blowfly strike has pushed a lot of sheep out of this district because people found they were spending a lot of their time jetting sheep (with insecticides).”

We do not mules our sheep, we don’t jet and we do not get any breech strike or body strike other than a few isolated cases,” says Brumpton.

“A lot of our clients, particularly further north, are one man shows. When it rains in the Channel country, they can be cut off from their sheep for a long time so they need sheep that are easy to manage and will survive if the shearers can’t get into the property for a few weeks.”

“I learned from a very young age that free growing, long stapled sheep rarely get flyblown. If the wool is well aligned and has a white wax it will absorb very little water and will dry out rapidly.”

“We had an incredibly wet humid summer this year with 800 millimetres of rain from November to January (2010-2011), and 290 millimetres in March. I couldn’t believe what I saw. There was no body strike at all and one case of breech strike among the 4200 ewe and lambs. There was virtually no fleece rot and the wool was still pure white,” he says.<sup>108</sup>



Source: Weekly Times



## *Philip Attard, Gostwyck Merino*

Gostwyck at Uralla in the New England region of New South Wales is owned and managed by Philip and Alison Attard. Over the past 17 years, Gostwyck has made many changes, notably the grazing management and animal welfare systems they have put in place as well as the focus on producing merino wool which is of ‘next to skin’ quality. According to Philip, Gostwyck Merino is 100% mules-free and has been since 2005.

“We just stopped and learnt the best way to manage using grazing rotation and applying the science available. And never started again, nor will we ever as the incidence of fly strike is far lower than when we mulesed.”

“The grazing methods employed as part of our advanced grazing systems have helped us to control flystrike. The sheep get a fresh grazing area twice a week, eliminating the problems of sheep camps. We also use less insecticides, a preventative measure to minimise flystrike.”

“As part of our grazing management we see all our sheep at least twice a week, and we are able to identify any isolated (flystrike) cases and treat them quickly.”

Gostwyck has a number of direct sales arrangements. They also use their own wool in the “Henry and Grace” baby wear range, showcasing the comfort factor.

Gostwyck produces wool with an average micron of 15.9 $\mu$  for adult sheep and 14.3 $\mu$  for lambs wool, and has been Responsible Wool Standards (RWS) certified.<sup>109</sup>

Source: Well Gully Merino

# WHAT BRANDS CAN DO



## Three steps to change

FOUR PAWS is calling on brands and retailers to take the following steps to help ensure mulesed wool is phased out and becomes a thing of the past.



**one** **6 months** to make and publish a commitment to end sales within a set time frame.



**two** **24 months** is the typical timeframe to start procuring certified mulesed-free wool.



**three** **3 months** for promoting mulesed-free philosophy and garment status to customers.

START

STEP 1

STEP 2

STEP 3

FINISH

### Step 1:

Make a public commitment to end sales of mulesed wool within a set time frame

- Communicate any new sourcing requirements, to each link within the supply chain and publicly.
- Know and publish the source and status of the wool used in your products. Where is the wool coming from? How is it certified? Is the wool mulesed, ceased or mulesed-free?
- Update company policies and ensure these are easily accessible to the public.

### Step 2:

Implement robust traceability systems to ensure wool use is restricted to mulesed-free.

- Apply an internationally recognised certification system to garment production operations. Companies should seek a system which strives for the highest animal welfare standards and enables a clear chain of custody (consider options and their value in the table overpage). As the wool supply chain is particularly complex, FOUR PAWS strongly encourages brands and retailers to prioritise utilising initiatives which offer robust full supply chain traceability systems.
- For companies able to go the extra mile, recent research shows that best practice for supply chain assurance, is for companies to use a combination of both internal and external auditing services.<sup>110</sup>

### Step 3:

Enable the customer to make informed decisions by clearly labelling whether a product is mulesed-free.

- Include the mulesing status of each garment directly to internal tags and price tags.
- Provide information online linking to an up-to-date mulesing policy, and proactively make your new commitment known to external brand ranking initiatives.

We understand that for some businesses who are not yet aware of the risk or the solutions, Step 1 may be the hardest! Our guidebook is designed to help overcome this.

Note, this is a rough guide based on a medium sized fashion enterprise with a willing supply chain.



## Support available to assist brands in transitioning to mulesed-free wool

With demand increasing for mulesed-free wool, there are now several assurance initiatives available, as well as organisations and businesses providing advice and support to brands wanting to transition their wool supply. On the following page, you can find an overview of some of the mulesed-free wool assurance initiatives available and open to use for all brands. These include:

### - Responsible Wool Standard (RWS)

An animal welfare and land management certification standard, backed by a chain of custody system (CCS) and developed via a multi-stakeholder process.<sup>111</sup>

### - NewMerino® Standard (NMS)

A verification system and supply facilitation service, based on RWS standards for animal welfare and land management.<sup>112</sup>

### - ZQ Standard (ZQS)

A certification standard, that sets requirements for animal welfare and the environment (considered equivalent to RWS standards) with additional criteria for social responsibility.<sup>113</sup>

### - Sustainawool (SW)

A wool 'sustainability integrity scheme' and auditing processes aiming to address animal health and welfare, traceability, environment management and social responsibility.<sup>114</sup>

### - National Wool Declaration (NWD)

A scheme which allows Australian woolgrowers to voluntarily self-declare the mulesing status of their clip for publication in wool sale catalogues, AWTA certificates and AWEX Mulesing Status Certificates.<sup>115</sup>

Whilst not included in the overview, there are several additional assurance initiatives in the marketplace.

**MyOrigins** is one of these, a platform also aiming to deliver traceability for brands. MyOrigins aims to establish the digital credentials for RWS batches, by adopting digital data collection on the farm, and is backed by a Blockchain mobile app.<sup>116</sup>

The development of such initiatives, and innovative use of technology is a positive sign of progress. FOUR PAWS strongly encourage brands choosing to continue selling wool, to consider the benefits and downsides of each scheme. In addition, we encourage brands to obtain the skills and support from supply chain and sourcing experts to ensure robust traceability.



Source: Shutterstock.com



## An overview of the mulesed-free wool assurance initiatives

The assurance initiative overview has been created based on survey questions sent to all assurance personnel in 2019. FOUR PAWS believes all initiatives hold some value, and some more than others,

however ultimately it is up to each brand to make an assessment. FOUR PAWS will continue to highlight the traceability capacity of each initiative listed below as the systems evolve.

|                                                                                                                                                                                                                                                                       | Responsible Wool Standard (RWS)                                                                                                                                                                     | NewMerino® Standard                                                                                                                                                                                                                                                                                             | ZQ Standard                                                                                                                                                                                                                            | Sustainawool                                                                                                                                                                                                                                                                                                                                                          | National Wool Declaration (NWD)                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Managed by                                                                                                                                                                                                                                                            | Textiles Exchange, a not-for-profit organisation, specialising in ethical textiles.                                                                                                                 | NewMerino, a specialist organisation designed to certify wool supply while remaining independent of the commercial elements of the transaction.                                                                                                                                                                 | The New Zealand Merino Company (NZM), a wool marketing and innovation company which owns and operates the ZQ Standard                                                                                                                  | The Australian Wool Exchange Ltd (AWEX) is an independent, not-for-profit industry organisation providing services to its members and the industry.                                                                                                                                                                                                                   | The Australian Wool Exchange Ltd (AWEX) is an independent, not-for-profit industry organisation providing services to its members and the industry.                                                                                                                                                                                                                                                       |
| Breec modification types certified / included<br><br>FP ideal: Only Non-Mulesed (NM) and Ceased-mulesed (CM) permitted. Mulesed (M), Steined (S) not permitted.                                                                                                       | Does not permit mulesing (CM permitted).                                                                                                                                                            | Does not permit mulesing (CM permitted).                                                                                                                                                                                                                                                                        | Does not permit mulesing (CM permitted).                                                                                                                                                                                               | The SustainaWOOL Integrity Scheme accepts Non-Mulesed and Ceased Mulesed (SustainaWOOL GREEN), and Mulesed with Pain Relief (SustainaWOOL BLUE).<br><br>An additional certification tier, SustainaWOOL GOLD, is available for growers producing NM only.                                                                                                              | The NWD declares the mulesing status of each mob of sheep, i.e. NM, CM, M or Mulesed with Pain Relief (PR).                                                                                                                                                                                                                                                                                               |
| Transparency mechanism<br><br>FP Ideal: full supply chain traceability, backed by a chain of custody approach.<br><br>The aim of such systems should be to verify the origin and reduce the likelihood of batches/garments including/ mixing with mulesed sheep wool. | Ensures a chain of custody, from the farm to the retailer.<br><br>This includes audits and certification of each member of the supply chain and content claim certificates for every batch of wool. | Traceability is built in as a component of the system, beginning at farm and through to spinning.<br><br>NewMerino coordinates supply through a Chain of Custody as an independent party measuring input and output at each stage. It requires supply chain partners to keep all appropriate records for audit. | Traceability to farm is a component of ZQ and beyond farm is tailored to meet each client's supply chain needs.<br><br>NZM hold RWS SC therefore this can include TE's Chain of Custody.                                               | All SustainaWOOL lots are traceable to an individual grower and farm of origin. AWEX provides SustainaWOOL certificates to Supply Chain Partners upon request.<br><br>AWEX maintains records of all SustainaWOOL member growers and Supply Chain Partners including wool brokers and private treaty merchants, wool exporters, wool processors, brands and retailers. | AWEX provides Mulesing Status Certificates to buyers & users on request.<br><br>AWEX maintains complete records of all sale lots that are audited, verified and inspected.<br><br>The AWTA Test Certificate can be used to trace back to the selling agent. Information from audits (specified below), are communicated to buyers and selling agents pre-sale where possible, and post-sale if necessary. |
| Frequency of audits<br><br>FP Ideal: 100% of all farms checked annually on site by a third-party accredited auditor prior to certification.                                                                                                                           | 100% of farms are audited through both desk audits and on-site inspections annually.<br><br>Group certification is allowed and is annually audited by third party accredited certifying bodies      | 100% of farms are audited initially with a desk audit which is then followed with an on-site audit within the first year. Producer Declarations are required for initial registration and to maintain certification. On-farm audits required every two years to maintain supply status.                         | 100% of farms are 3 <sup>rd</sup> Party audited on site, on a 3-year cycle as a minimum, plus additional random auditing and inspections.<br><br>Growers sign a declaration annually indicating on-going commitment to the ZQ program. | SustainaWOOL GOLD members' farms are audited annually.<br><br>SustainaWOOL (BLUE & GREEN) members' farms are re-accredited every year, involving a mandatory desktop audit, and physical inspection of the farm on a 5-year cycle. Every sale lot of wool is inspected every year.                                                                                    | Each year, AWEX conducts 1,000 desk top audits of the NWD, 275 Verifications of the use of PR and 225 on-farm inspections for NM and CM.                                                                                                                                                                                                                                                                  |
| Parallel production at the farm level permitted?<br><br>FP ideal: No parallel production permitted.                                                                                                                                                                   | No                                                                                                                                                                                                  | No                                                                                                                                                                                                                                                                                                              | No                                                                                                                                                                                                                                     | No                                                                                                                                                                                                                                                                                                                                                                    | Yes                                                                                                                                                                                                                                                                                                                                                                                                       |
| Can brands label garments with this assurance system, and are consistent marketing assets available?<br><br>FP ideal: Third party certification logos are made available to brands and retailers, and the use of these is overseen by the standard setting body.      | Yes                                                                                                                                                                                                 | Yes                                                                                                                                                                                                                                                                                                             | Yes                                                                                                                                                                                                                                    | Yes                                                                                                                                                                                                                                                                                                                                                                   | Yes and no.<br><br>As the NWD is not a certification scheme, marketing assets are not provided; however, the brand/retailer has the option of communicating its status.                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                           |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Compliance mechanism</p> <p>FP ideal: Clearly communicated repercussions for mis-information. Including a lifetime ban for those found guilty of being deliberately misleading.</p>                                                            | <p>Annual audits at farm level including unannounced audits combined with supply chain compliance to the Content Claim Standard (CCS).</p> <p>Compliance mechanism in place and dependent on whether non-compliance is major or minor.</p> | <p>Where major non-compliance is detected supply status is suspended. If wilful non-compliance is detected, certification is cancelled and supply will not be drawn from these farms.</p> | <p>The ZQ Standard assigns a non-conformance status and should egregious violations occur, members will be removed from the programme immediately. Implications of non-compliance are stipulated within the contracts for wool supply, which are revoked in such circumstances.</p> <p>Request for re-entry to the program will be referred to the ZQ Governance Group and NZM Senior Management.</p> | <p>Non-compliance results in suspension of accreditation, and advice to wool selling agents and buyers, until remedied to AWEX's satisfaction.</p> | <p>Two levels of Non-Compliance may be determined – level 1 and level 2. If it is determined the breach is a level 2 Brand/PIC will not be able to make a future declaration until an on farm inspection or PR Verification has been undertaken.</p> <p>If a declaration (regardless of type) is found to be non-compliant, the buyers (and the broker) of the incorrectly declared wool are informed and advised of the correct mulesing status. They and their wool processing clients will consider their position.</p> |
| <p>What third party bodies are involved?</p> <p>FP ideal: Separation between the entities writing the standards, and those who are doing the verification against that standard. Standards are created in line with best practice principles.</p> | <p>Seven global certification bodies are accredited to audit against the RWS. Textiles Exchange does not manage farm audits.</p> <p>The RWS was developed using the ISEAL Principles of sustainable standard creation.</p>                 | <p>NewMerino systems are verified by the certification body Control Union.</p> <p>NewMerino carries out its own desk audits and on-farm audits.</p>                                       | <p>Farm audits are carried out by the certification body AsureQuality New Zealand Ltd. and their global partners.</p> <p>The ZQ standard is at the final stages of certification to ISO/IEC 17065:2012 conformity assessment standard which includes requirements for certification bodies, products, processes and services.</p>                                                                     | <p>AWEX is currently completing certification for SustainaWOOL under ISO9001.</p>                                                                  | <p>AWEX is currently seeking ISO accreditation for the work processes it has in place in relation to the NWD-IP.</p>                                                                                                                                                                                                                                                                                                                                                                                                       |

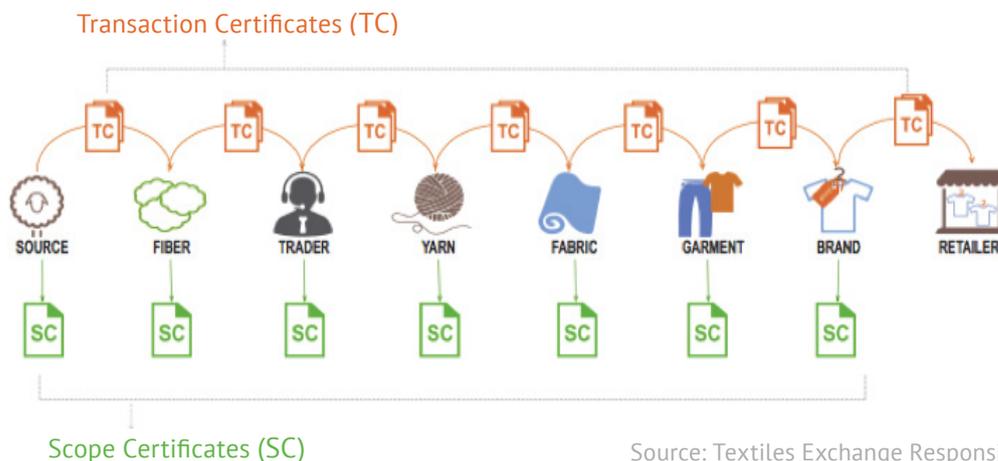


### Additional considerations:

- While FOUR PAWS encourage the use of effective certification schemes, it is acknowledged they cannot always provide a 100% guarantee.
- The National Wool Declaration is not a standard setting body nor a certification scheme as such, however it has been included due to its high-level of use within Australia to date.
- FOUR PAWS is against any form of breech mutilation/ modification. This includes mulesing and a new form of breech modification called steining/ freeze branding (the use of liquid nitrogen) due to continued concern for sheep welfare.

There is no robust scientific evidence to back claims that freeze branding does not cause animals severe pain or stress. FOUR PAWS has informed each of the initiatives listed above that freeze branding should not be certified as non-mulesed, and for wool coming from freeze branded sheep – that this should be clearly labelled as such.

- Parallel production refers to whether producers can sell both non-mulesed and mulesed wool.
- The aim of the Chain of Custody approach is to preserve the identity of the claimed material, and to track its movement through the supply chain. As shown below, this can be done through Scope Certificates (SC) and Transaction Certificates (TC), verifying that both the company is qualified to produce goods to a given standard, and the goods being shipped from one company to the next conform to the given standard.<sup>117</sup>



Source: Textiles Exchange Responsible Wool Standard - chain of custody system

*Dear Brands,*

*Thank you. You are an essential part of  
the solution for better sheep welfare.*



Source: Shutterstock.com



*Thank you for coming on the journey with us to transition towards mulesed-free wool supply chains. We hope this guidebook has been helpful to you and your team.*

*We know that brands are the link between animal fibre producers and garment makers, and the consumers who buy and wear the clothes. While change can start anywhere within the wool supply chain, brands are especially well-placed to lead the change away from mulesed wool.*

*By making a commitment and transitioning away from mulesed wool, it's clear that brands will not only protect animals from an outdated and cruel practice, but will also safeguard their own business by mitigating significant risk and appealing to additional markets.*

*Now is the best time for brands to lead the way, and provide a strong demand signal by making a public commitment to phase out mulesed wool. Certified mulesed-free wool supply is slowly on the increase, non-mulesed wool sourcing specialists are opening shop, and wool accreditation initiatives and full supply chain traceability systems are becoming ever more robust and scalable.*

*FOUR PAWS invites brands along on a more ethical journey, starting with The Three Steps to Change (p 18). We are keen to collaborate with industry partners, and are open for further dialogue about flystrike, mulesing, and the solutions.*

*We welcome hearing from brand managers, sustainability and procurement managers and anyone who wants to improve animal welfare practices in their supply chain.*

*To contact us, please email [textiles@four-paws.org](mailto:textiles@four-paws.org). We look forward to working with you, and welcome any enquiries, updates or news regarding progress.*

*Only together can we end mulesing and improve the lives of millions of animals.*

*Nina Jamal*

*Head of Farm Animals Campaigns  
FOUR PAWS International*

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