

Beyond the bale

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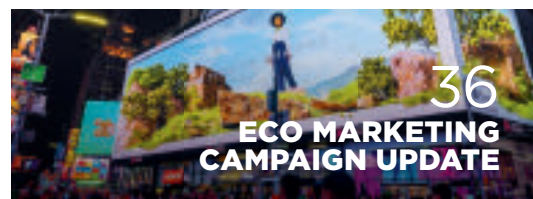
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ECO MARKETING
CAMPAIGN UPDATE

Beyond thebale

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FRONT COVER

Pregnancy scanning – an ‘ultra sound’ investment

Major new research shows that pregnancy scanning has a high return on expenditure for sheep producers, with scanning for multiples increasing potential profit by an average of \$5.75/ewe scanned, across 27 scenarios that the researchers examined for winter rainfall areas. Scanning for multiples provided twice the value of scanning for only pregnancy status.
See pages 24-25 for details.

PHOTO: Grace Corrigan (@fairviewphotos) of Burrumbuttock, NSW.



AWI is the R&D and marketing organisation for the Australian wool industry



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AWI INVESTMENT STRATEGIES



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AWI STATE-BASED GROWER NETWORKS

AWI-supported networks are present in each state.

- Sheep Connect NSW
- Sheep Connect SA
- Sheep Connect Tasmania
- BESTWOOL/BESTLAMB (VIC)
- The Sheep's Back (WA)
- Leading Sheep (QLD)

Find your grower network at www.wool.com/networks or call the AWI Helpline on 1800 070 099.



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AWI E-NEWSLETTERS:

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AWI WORKING FOR WOOLGROWERS



John Roberts
Chief Executive Officer
Australian Wool Innovation

AWI CEO John Roberts provides readers with an overview of how AWI is undertaking R&D and marketing to address some of the key issues faced by Australian woolgrowers.

Eco campaign provides powerful message

There has been an overwhelmingly positive reception to our 'Wear Wool, Not Fossil Fuel' marketing campaign. Launched in September, the global campaign informs and educates consumers that synthetic fibres are made from fossil fuels such as oil, whereas wool is a 100% natural, renewable and biodegradable fibre – and people should therefore choose products made from wool in preference to synthetic fibres.

Central to the campaign strategy is our research that shows 8 in 10 consumers do not know the origin of synthetic fibres. Without consumers knowing what synthetic fibres are actually made from, they can't make informed purchasing decisions. Our campaign is powerfully positioning wool as the responsible choice for conscious consumption.

Promoting the eco-credentials of our fibre has been at the centre of our messaging for many years, however as pressure grows on brands and consumers to make better choices, so too does the need for directness and transparency.

Sustainability embedded in AWI strategy

Sustainable practices have long been at the core of the Australian wool industry. AWI's 2022-2025 Strategic Plan formalised this, making sustainability a key priority for the company as we deliver eco solutions across the supply chain.

Earlier this year, we established a Sustainability Solutions Service team within AWI to, firstly, help our global partners (processors, manufacturers, brands etc) to achieve their sustainability goals by sourcing wool and taking advantage of the fibre's inherent eco-credentials. Secondly, the team will ensure woolgrowers remain informed, connected and involved on the subject so

they are best positioned to leverage every opportunity that exists in this increasingly important area.

Wool already has a great story to tell in this space and the timing is right to take control of the narrative rather than having a set of requirements imposed upon woolgrowers that are not realistic or achievable. Our sustainability strategy aligns with key themes in both the *Wool 2030* strategy (launched in December 2020), and the Australian sheep and wool industry's *Sheep Sustainability Framework* (launched in April 2021).

The resounding success of our eco campaign has given us some early momentum and I look forward to working with the team in developing great opportunities for our fibre and great outcomes for woolgrowers.

Extra resources for wool harvesting

Wool harvesting continues to be a priority focus for AWI. The AWI Board has approved increased funding in this area and an extended three-year program with \$10.5 million to be invested in wool harvesting training over three years. The increase in funding and the expansion of training to include high schools will allow for a more sustainable workforce for woolgrowers.

Retaining learner and established shearers is as important as attracting new shearers and I'm delighted that we are achieving more than a 90% retention rate of the learner shearers we put up on stands.

Woolgrowers can play their part in helping attract and retain shearers and wool handlers by providing modern, professional and safe working conditions in their sheds. Our industry's potential workforce often have many other alternative career options open to them so we must make conditions as attractive as possible to attract and retain them.

Resources to help combat worms and flies

Much of the country has continued to have heavy rains. While some areas have been set up well for a good spring and summer, my thoughts are with those woolgrowers that have been affected by bad flooding.

Another consequence of the rains is that it provides ideal conditions for worms and flies. AWI has made available a range of information resources for woolgrowers to help prevent and combat these costly parasites. Check out the AWI website at www.wool.com/sheep/welfare and the recently revamped suite of ParaBoss websites.

It's pleasing to hear that the SimpliFly flystrike management workshops that have been rolled out during the past few months are proving successful in providing attendees with improved confidence to manage flystrike.

AWI Annual General Meeting

AWI held its 2022 AGM on Friday 18 November in Sydney. At the AGM, I gave a detailed presentation of the activities of the company during 2021/22 and some plans for the future. You can view a recording of the 2022 AGM and access our 2021/22 Annual Report on the AWI website at www.wool.com/agm.

The Australian wool industry has come out of COVID in pretty good shape. Like our Merino sheep, our industry is hardy, highly productive and performs whatever the conditions. While the industry still faces many challenges – such as international logistic issues, global economic uncertainty, biosecurity threats, and labour shortages – I believe the performance attributes and eco-credentials of our fibre place the industry in a good position for the future.

I wish you a happy Christmas and New Year and a safe and prosperous 2023.

Making wool harvesting easier

to attract and retain shed staff

AWI is creating practical designs and programs that woolgrowers are now adopting to make wool harvesting easier, safer and more efficient; thereby helping to attract and retain shearers and wool handlers in the industry.

Labour shortages across the country have had a serious impact on the availability of wool harvesting staff, leading to AWI increasing its investments into new harvesting technologies and practices, as well as shearer and wool handler training initiatives.

To enable woolgrowers to see the current results of AWI R&D work in this area, as well as commercial products from third-party manufacturers, AWI held a Wool Harvesting Innovation Demonstration Day in October at Jarrod King's Warralea Poll Merino Stud at Gairdner in the Great Southern region of WA. This event followed on from a similar one held in May at AWI's Falkiner Memorial Field Station at Conargo in NSW.

These events were a great opportunity for woolgrowers to explore a range of

potential new harvesting options for their own enterprise – from modular sheep delivery units to upright posture shearing platforms – and to talk to leading machinery and shed manufacturers about design and construction.

AWI staff were also on hand to provide the latest information to woolgrowers on AWI initiatives regarding shearing shed safety, shed design, and shearer and wool handler training.

Acknowledging that every woolgrower's operation and setup are different, this article provides woolgrowers with a snapshot of some of the options available for them to make wool harvesting easier, safer and more efficient – which will help them and the industry attract and retain shearers and wool handlers.

Working conditions are paramount

A survey conducted last year of (mainly) shearing contractors across Australia revealed that seasonality and working conditions in sheds were seen as the primary barriers to attracting and keeping new workers in the wool harvesting industry. These were rated above all other factors, with others including limited training opportunities, cost of gear for novice shearers, and the cost to the contractor of employing a learner. The survey was run during April 2021 by AWI and the WA Shearing Industry Association across all states.



Jarrod King's new shearing setup on display in his shed at the **Wool Harvesting Innovation Demonstration Day** in October. Behind the shearing stands runs a race, from which shearers can easily remove a sheep (through the gate), thereby greatly reducing the traditional drag.

AWI sheep delivery units

AWI has undertaken a project to develop a system that delivers sheep directly to the shearer, eliminating the time and energy that shearers spend on the catch and drag. It also minimises the chance of injury to the shearer from the dragging and twisting movements.

The design focuses on a 'modular' concept in which portable singular shearing stands can be joined together to make a multi-stand shearing platform, which can be stored away after use. Each modular unit holds three sheep in a race at the back of the unit. A dummy pen is fitted onto the end of the race to assist with the flow of sheep.

The **automatic module** contains a pneumatically powered delivery section that, at the press of a button, moves out from the race and then tilts the sheep into a position suitable for the shearer to then easily retrieve the animal.

There is also a **manual version** which is very similar to the automatic module's race, except that in the race there is a simple spring-loaded gate, in place of the automatic delivery section. The shearer simply opens the gate and collects the sheep from the race and manoeuvres the sheep the metre or so to the centre of the board before starting shearing.

For both modules, an angled chute allows for simple release of the shorn sheep underneath the race – again without significant dragging or twisting.

There are several companies manufacturing a sheep delivery system based on AWI designs, including:

- **Haynes Engineering** (www.haynesengineering.com.au, 08 8762 2744) produces an automatic and a manual modular race delivery system.
- **Commander Ag-Quip** (www.commanderagquip.com.au, 1800 655 033) produces an automatic and a manual modular race delivery system.
- **Stockpro** (www.stockpro.com.au, 1800 354 415) produces a manual modular race delivery system.
- **ProWay** (www.proway.com.au, 1300 655 383) produces both fixed and modular manual race delivery systems and provides a full design and construction service incorporating the modules.
- **Kyabram Steel** (www.kyabramsteel.com.au, (03) 5853 1554) manufactures the manual modular race units.



A shearer collecting the sheep from the race on the **manual delivery system** and simply manoeuvring the sheep to the centre of the board before shearing. This picture is the module on display at AWI's Wool Harvesting Innovation Demonstration Day at Gairdner WA in October.

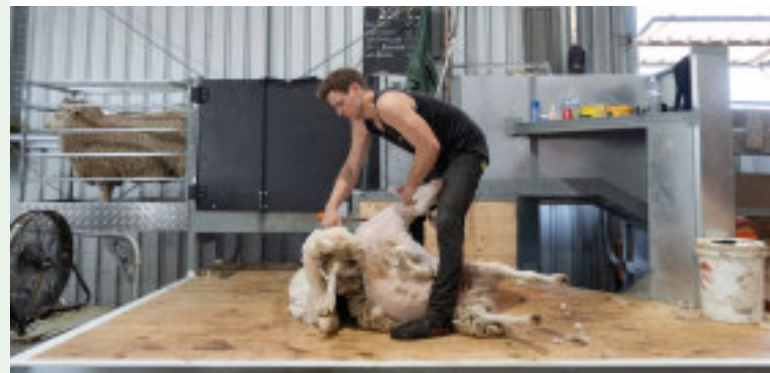


The Haynes Engineering version of the AWI **automatic delivery system** won the Business & Corporate Technology category in the Inventions Competition at this year's Sheepvention in Victoria (top), and the system in action (bottom).

MANUAL SHEARING MODULES "FOR SALE NATIONALLY" OR HIRE IN SA & WESTERN VIC

PROUDLY AUSTRALIAN MADE BY HAYNES ENGINEERING

**Reduces catch and drag - Increases productivity -
Minimises risk of injury - Retrofit into existing
sheds - Easily transportable - Cost effective.**



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AWI Shearing Shed Design



The blueprints of AWI's Shearing Shed Design are available free on the AWI website.

AWI's Shearing Shed Design is a result of AWI and a working group of woolgrowers and shed staff in 2019 designing a shearing shed which addresses worker safety and animal welfare considerations, while also achieving improved shed efficiency and good wool quality outcomes.

The design was developed following extensive industry consultation with some of the most experienced shearers, wool handlers, classers and woolgrowers from across Australia. Multiple trials led to refinements and a final design.

The internal fit-out has been designed to have its own structural integrity so it can be built within any suitable pre-existing shed. The builder or contractor will be able to build as it is designed or extract certain elements of the AWI design to suit specific on-site requirements. Dozens of sheds have now been built across the country using the AWI design.

More information
www.wool.com/sheddesign

Chippy Chad & Co Construction, founded in 2016 by Chad and Cheronne Lavender, specialises in shearing shed renovations and design. The company has been building sheds based on the AWI Shearing Shed Design throughout Southern WA, including the 'gold standard' shed of Geoff and Linda Bilney on their 'Broome Farm' property at Kojanup, WA (which was featured in the June 2021 edition of *Beyond the Bale*).

While Chad and his team follow the initial AWI design, they introduce some structural changes to reduce construction times and also extra innovations such as air-conditioning systems and a raised floor under

the shed high enough to enable machinery to get under and clear out manure.

"Everyone so far, has been happy with the overall design. It has been great to see the growers listening to the contractors and their teams and making small changes to suit, resulting in everyone being happy working in the shed," Chad said.

"Some alterations growers have requested include the height of the sloping floor in the catching pens, some have preferred it lower. And the catching pen doors, some have preferred a single door rather than the double doors. It really has come down to the individual contracting

team along with the grower, as to which minor changes they have preferred."



A new shed at 'Doreenup' at Kojanup built for the Eyres family by Chippy Chad & Co Construction, based on the AWI Shearing Shed Design.

AWI's shearing shed design considerations guide



Published in December 2021, this 32-page guide has been produced by AWI to provide woolgrowers with an outline of some of the considerations when renovating or designing new shearing sheds. It covers (1) in-shed pens (2) shearing board (3) wool room (4) general design and construction, and (5) equipment.

More information
www.wool.com/sheddesign

Right: Renovations of David Hebb's shed at Collie/Darman, WA, by Aleck Elward (who is also a shearer) were appreciated by the team at Chadwick Shearing during this year's shearing.



BEFORE



AFTER

Potential AWI technology solutions



BIOLOGICAL WOOL HARVESTING

AWI is funding research into a new opportunity for biological wool harvesting that generates a weakened zone at the base of the wool fibre but, importantly, enables the fleece to stay on the sheep without a net until the wool can be removed.



WEARABLE TECH TO PREVENT SHEARING INJURIES

AWI-funded research continues into wearable technology that will potentially provide shearers with an early warning alert (via a display on a smartphone) when they are becoming vulnerable to potential fatigue-triggered injuries, and propose optimal resting cycles.



SEMI-AUTONOMOUS WOOL HANDLING SYSTEM

A three-year AWI-funded project to design, build and test components of a semi-autonomous wool handling system is being undertaken by the UTS Faculty of Engineering and IT. The project aims to cover the steps from the wool table through to baling.

SafeSheds shearing shed safety program

The shearing shed safety program *SafeSheds*, which includes a best practice guide and checklists, was launched in November 2020 to improve safety and working conditions in shearing sheds. It is a self-assessment guide and not a formal audit.

SafeSheds is now being used across the country by woolgrowers and their shearing contractors to help them assess the safety of their sheds, thereby enabling the woolgrower to create a program to rectify any safety hazards, improve working conditions and comply with modern workplace standards.

While safe shearing sheds help attract people into the industry, retain current staff and extend the longevity of their careers, they also improve industry productivity and profitability.

Developed by AWI and WA Shearing Industry Association (WASIA), *SafeSheds* harnesses the support of industry including WoolProducers Australia, Pastoralists & Graziers WA, WAFarmers and Shearing Contractors' Association of Australia.

SafeSheds is available as an 80-page booklet, while the *SafeSheds* checklists are

also available in a handy digital, interactive format.

More information
www.wool.com/safe-sheds



The 80-page *SafeSheds* shearing shed safety program booklet.

WASIA and the Esperance grower group ASHEEP have worked together to roll out the *SafeSheds* program in the region, running shed inspections that enable farmers and their shearing contractors to review the safety of sheds.

"Each audit took about 1¼ hours, and left growers with a completed checklist and actions to consider. All involved agreed that it was a worthwhile exercise," said ASHEEP's Jan Clawson.

"A lot of the issues picked up were easy to fix, with simple changes that go a long way to improving the experience of shed staff. Some issues picked up, such as the type of gates used or size of catching pens, were items that could be considered over the longer term."



WASIA Chair **Darren Spencer** discusses the *SafeSheds* checklist with producers **Leigh and Karina West** at 'Karleigh Farms', joined by shearing contractors **Desiree and Kahu Hokianga** (K-D Shearing), and local grower **Glenn Mitchell**.

ram to ewe – automated catching pen

Designed and manufactured by Flinn Design in Wagga Wagga, NSW, the 'ram to ewe' is the latest innovation to be incorporated into existing shearing sheds as well as Flinn Design Shearing Sheds. ram to ewe comes in two versions:

- **Manual** – the shearer controls the back gate with the push of a button.
- **Instinct** – a computerised version which regulates the speed and distance the gate moves over the run.

Both versions are operated by air (pneumatic rams) regulated at 40psi, which is significantly less than the pressure required to run an auto drafter. The advantage of the low psi is the gate applies pressure, not force if the sheep is standing firm. The gate will move forward, closer

to the shearer as the sheep adjust and re-arrange themselves.

ram to ewe was invented to bring old poorly designed catching pens in line with modern designs at a fraction of the cost of a new shed. The shearer still gets to straighten their back over the short drag. The shearer is still able to pick their pen.

The back gate can be opened to allow for angled back fill if a front fill option is not available. ram to ewe complements the Flinn Design Hybrid Catching Pen with a straight drag and offset, recessed chute. It can also be retro fitted into any catching pen size.

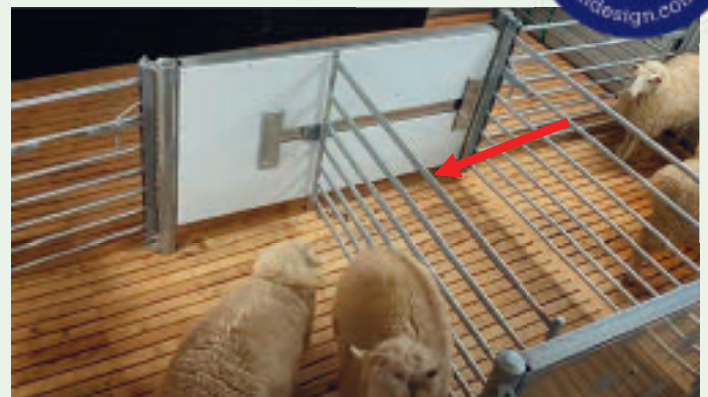
The potential benefits of the ram to ewe for woolgrowers and the industry include:

- Animal welfare – as sheep are kept in a mob, they are easier to passively guide.

This reduces stress on the animals and allows for easier and quicker handling. This is achieved through good design.

- Improved efficiency for workers.
- Decrease in shearer injuries.
- Increased attraction and retention of shearers to the industry.
- Cost effective solution to upgrade an old shed with state-of-the-art technology.
- ram to ewe offers a unique solution to progressive customers.

More information
www.flinndesign.com.au
Contact Bob Thornely
bob@flinndesign.com.au
0457 828 309



AWI-funded in-shed harvesting courses

AWI funds training to attract and retain new entrants into the wool harvesting industry, build the capacity and longevity of existing staff, and increase returns to woolgrowers through improved clip preparation practices.

AWI regularly funds and supports hands-on practical in-shed training for shearers and wool handlers to attract and retain new workers, as well as increase their productivity, skills and professionalism. In Victoria and South Australia, the training is provided by the Shearing Contractors Association of Australia (SCAA) Shearer Woolhandler Training Inc.

There has been a concerted effort to run extra novice and improver training, funded by AWI and several state governments. However, even more training is underway in this financial year with 2,200 days planned: 800 days of novice schools, 500 days for improver schools, and 900 in-shed training days to cover new entrant wool handlers and follow up training for improver shearers all working in a team in industry.

AWI will continue to work closely with shearing contractors and state governments to deliver the best possible training all across Australia.

AWI thanks all the woolgrowers who provide their facilities and sheep, and all the other organisations and individuals that lend their time and resources to help run this training. **B**

More information

To arrange training in your state, phone AWI on **1800 SHEARS** or email swt@wool.com

Six learner shearers with their AWI learner shearing toolboxes at an improver school at Paraway Pastoral's 'Steam Plains' and 'Cooimbil' properties in NSW.



Retaining learner shearers

AWI initiatives to encourage learner shearers that have completed training to build up their skills and stay in the industry include three extra in-shed coaching training days, and the presentation of the 'AWI Learner Shearer Toolbox', containing a handpiece and other shearing gear, subject to the shearer passing certain strict criteria. AWI presented 223 toolboxes to new entrant learner shearers in 2021/22 who are now on stands.

Cooperation on Trans-Tasman shearer and wool handler training

In another initiative to help alleviate the shortage of shearers and wool handlers, Australian and New Zealand training providers have signed an agreement to help ensure consistency of training in the two countries.

AWI and the Shearing Contractors' Association of Australia (SCAA) Shearer Wool Handler Training Inc have signed a joint Memorandum of Understanding (MOU) with New Zealand's shearing training body, Elite Wool Industry Training NZ.

"This agreement will allow for the training organisations to work together on shearing and wool handler training consistencies across the Tasman. For example, it will help ensure that when young Kiwis come to Australia to shear, their shearing pattern and technique will be consistent and align with what the Australian market requires," said SCAA SWTI's CEO Glenn Haynes.

"The agreement is not a silver bullet for the issue of skills shortages, but it will provide a platform that can align the

approach to solving or at least mitigating some of the training issues that both nations are experiencing at the moment."

The MOU is in response to the global shortage of shearers and skilled woolhandlers, which Australian woolgrowers have endured for the past two years. The problem is not confined to Australia which has resulted in New Zealand and northern hemisphere farmers competing for the same pool of shearing staff.

"The shearer and wool handler shortage is an international problem and therefore we need to take a broader approach to addressing it," said AWI's National Manager, Wool Harvesting Training & Careers Development, Craig French.

"Over the next three years,

Australian woolgrowers will invest more than \$10 million into shearer and wool handler training. We are best to have an agreement with our Trans-Tasman counterparts to ensure this investment is not one-sided and is in sync with what is happening in New Zealand. This MOU will allow this process to happen more easily."

The Secretary for the SCAA, Jason Letchford, says he is excited about the additional benefit of being able to facilitate the transition of learner shearers and wool handlers between the countries.

"This will help to accommodate the seasonal cycles and better ensure consistency of work for new entrants to the industry, an issue that has been the Achilles Heel for learner shearers in the past," he said. **B**



AWEX's WoolClip will be incorporated into WoolQ this month to be the industry's single electronic specification.

One electronic specification on its way for industry

AWI and AWEX are working together to incorporate AWEX's WoolClip into WoolQ as the single electronic specification for the Australian wool industry.

WoolQ is a secure online platform built by AWI in 2018 for woolgrowers and their business partners to connect and share data and information. An important feature of WoolQ is its electronic specification which is an alternative to the current paper specification. For several years, AWEX has had its own, separate electronic specification, known as WoolClip.

In a major development, AWI and AWEX have for the past few months been working on connecting the WoolClip electronic specification into WoolQ which will provide the industry with a single electronic specification.

WoolQ's current electronic specification and AWEX's WoolClip will operate as usual until the launch of the single solution. (It's important to note that a woolgrower's information will not be sent from WoolClip to WoolQ unless that individual grower approves it.)

A single electronic specification for the industry will be a critical piece of software. Not only will it capture wool production data, but it will also provide the foundation piece for traceability, which is more important than ever.

"There are huge benefits that can result from a simple industry-wide electronic specification, and it is essential in achieving a full traceability solution for our fibre," AWI CEO John Roberts said.

"Traceability will enable the Australian wool industry to better address the threats associated with a biosecurity incursion like foot and mouth disease, as well as allowing woolgrowers to leverage the commercial opportunities that exist around provenance, which is now a common priority amongst sports and fashion brands globally."

AWEX CEO Mark Grave says it has been important that the two not-for-profit companies work together for the mutual benefit of the industry.

"AWEX and AWI recognise the value that industry can gain by collaborating. Achieving a single electronic specification will streamline training, extension and remove duplication for the industry," Mark said.

"Traceability is critical to wool's future and it starts on farm. Having a single on-farm platform to capture

wool information will play a large part in improving Australia's traceability and provenance credentials. Australia can lead the world and improve efficiencies through the supply chain."

The companies will also collaborate on promotion and education of the benefits of a digital data journey, to increase adoption for the benefit of all industry participants.

Both companies are confident in the success of this project and believe it will develop into a much closer working relationship going forward. AWEX with its strong connection to classes, coupled with AWI working with and for woolgrowers, offers a unique opportunity to leverage each other's strengths.

With the focus of WoolQ shifting to be more of a foundation piece for traceability, the WoolQ Market transactional feature will continue to be on hold as AWI looks to engage with the industry and look at the best use of that particular resource going forward. **B**

More information
www.woolq.com



Write off the full cost of eligible assets with temporary full expensing* before it ends on 30th June 2023.

*Speak to a qualified accountant to find out how this would apply to your business.

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R&D into simple, low-cost OFFM

AWI is funding the development of a low-cost method of on-farm fibre measurement (OFFM) that could potentially enable woolgrowers to easily measure their wool's micron, colour and crimp in real time on a smartphone.

For many woolgrowers, fibre measurement is a key part of their selection and breeding program, because it improves selection accuracy, ensures a better quality of wool and, in turn, increases profitability. It is also useful at wool classing to enable saleable lines of wool that have uniform characteristics that meet the requirements of processing mills.

However, current methods of measuring individual fleece traits (such as fibre diameter) on-farm, or sending samples

to a laboratory for measurement, can be costly, time-consuming, or unavailable at the time they are needed by woolgrowers due to high demand when shearing conditions are right.

“To help remedy this, AWI has teamed up with Australian start-up company Zondii to investigate whether the company’s patented Artificial Intelligence imaging technology can be used to successfully measure wool’s micron, and potentially colour and crimp,” said AWI Program Manager Agri-Technology, Carolina Diaz.

“The project aims to enable woolgrowers to utilise the Zondii technology to conveniently scan wool in-shed and detect wool traits using an affordable hand-held device, such as a smartphone, with no requirement to be connected to the internet after the initial download of the software done at the time of purchase.”

“It is anticipated that the availability of a more affordable and easier to access solution would encourage more woolgrowers to use on-farm fibre measurement and enable those already using it to test more of their flock than present.”

Carolina Diaz, AWI Program Manager Agri-Technology

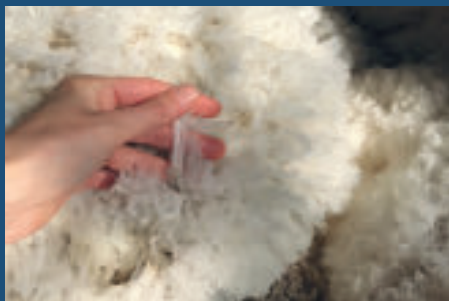
While use by a smartphone would be cheaper and achieve better industry

adoption than a separate handheld scanner, a separate device might have advantages such as being more robust against dirt than a smartphone.

As well as measuring wool from fleece that has already been shorn, Zondii is also investigating the possibility of testing wool while it is still on the sheep in the drafting run, prior to shearing.


“Being on-farm during shearing, I was able to see first-hand the challenges faced in trying to keep up with the speed of shearing and class wool into the most profitable lines. Zondii is extremely excited to be finishing the project with AWI and share the technology options for handheld micron detection,” added CEO and Founder of Zondii, Danielle Morton.

Zondii technology is in trials with AgriFutures for other Australian agricultural industries such as horticulture to improve yield and validate authenticity and provenance. **B**



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Sheep Sustainability Framework

reporting the industry's sustainability credentials

The Australian sheep and wool industry in April last year launched the world's first Sheep Sustainability Framework. It was initiated by Australia's sheep industry leaders to demonstrate the industry's sustainable practices, identify areas for improvement, and better communicate with customers and consumers. It has recently issued two reports providing updates on progress.

What is the Sheep Sustainability Framework?

The Sheep Sustainability Framework (SSF) is an industry owned initiative to monitor, measure and report the Australian sheep industry's performance against sustainability priorities.

Sheep Producers Australia and WoolProducers Australia led the development of the SSF with AWI and Meat & Livestock Australia providing funding, together with strategic and secretariat support. The Framework was developed through extensive consultation and launched in April 2021.

The SSF identified 21 priorities relevant to sustainable sheep production in Australia, classed into four themes:

1. Caring for our sheep
2. Enhancing the environment and climate
3. Looking after our people, our customers and the community
4. Ensuring a financially resilient industry.

The performance of the sheep industry in these areas, tracked over time,

will provide evidence of the industry's commitment to continuous improvement. It will demonstrate that Australia has a clear path towards sustainably produced sheep meat and wool.

“The significance of the framework is around galvanising industry and telling a great story. We have a consumer base craving the term sustainability, and wondering what it means, and this gives us an opportunity to provide customers globally with the solution to that sustainability question.”

John Roberts, AWI CEO

While the SSF takes an industry-wide perspective and therefore does not require any direct input from producers, individual businesses may use the SSF to understand the industry's sustainability credentials and consider these in their forward planning.



The SSF's first Annual Report (released in July 2022) and the On-Farm Insights Report (released in October 2022).

Reporting from the SSF now available

In July, the SSF launched its first Annual Report which reported data on industry progress against key sustainability priorities.

“We've shared very encouraging data to come out of the report, including a 9% reduction in emissions intensity of wool and meat production from 2005 to 2020.”

Dr Scott Williams, Sheep Sustainability Steering Group Chair

While there was data to show a directional improvement, or otherwise, against about half of the 62 indicators, the other half of the indicators in this initial annual report were either provided an initial benchmark, or were marked as a work in progress, or data/metric was still waiting to be identified.

The items marked as work in progress were awaiting the results of a national producer survey, which was underway at the time and results have subsequently been released. The survey was commissioned by AWI and MLA to collect comprehensive data about on-farm production practices, primarily covering animal husbandry practices, but also other topics such as predation, renewable energy use and succession planning.

In October, the SSF issued a standalone report that contained important insights from the national producer survey. The key figures from the survey will be reported as benchmark data in the SSF's next Annual Report due for release in May 2023. **B**

More information

www.sheepsustainabilityframework.com.au



AWI has launched a double-pronged initiative to (1) demonstrate to woolgrowers the business case for improving their farms' natural capital, and (2) provide regionally relevant pathways for woolgrowers to do so.

Consumers, brands and regulatory bodies are increasingly wanting evidence that farmers are responsibly managing their farm's natural resources. Furthermore, there are market signals that they have expectations for farmers to adopt practices that actually *build* their farm's natural capital; this includes regenerative practices such as sequestering carbon in soils and vegetation, and rebuilding biodiversity.

In response, and as part of a broad strategy to help Australian woolgrowers increase demand for their wool, AWI has launched two new projects to help interested producers understand the 'why' and the 'how' of building the on-farm capital of their properties.

Farming for the Future – making the business case for improving natural capital

Farming for the Future's purpose is to provide the evidence and practical support for farmers to incorporate natural capital as part of the foundation of a profitable farming business.

AWI has joined Farming for the Future, a significant national research program initiated by the philanthropic Macdoch Foundation that is working towards a more financially prosperous, climate-resilient and decarbonising agriculture sector in Australia. The Foundation's work is supported by other philanthropists and other industry partners including the National Farmers' Federation and MLA.

Farming for the Future aims to establish evidence that quantifies the relationship between on-farm natural capital and farm business outcomes. Ultimately, this will help farmers to plan and manage their investments in their on-farm natural capital in a way that maximises environmental returns whilst also building resilience and profitability into their business.

Most farmers know that good management of their farm's natural resources is critical to the long-term viability of their operations, but a more detailed understanding of the impact of increasing natural capital levels on farm enterprise performance remains largely unknown.

Farming for the Future Program Director, Dr Sue Ogilvy, says the program is designed to help farmers find a "sweet spot" between the natural resources they manage for their farm businesses and for their profitability.

The 'why' and 'how' of building on-farm natural capital

"It's believed that as farmers increase natural capital up to a certain point, their profitability or other benefits also increase. However, beyond a certain point they might decrease," Dr Ogilvy said.

"We think that many farmers are currently what we might call 'underinvested' in natural capital, meaning that if they increase their natural capital – maybe by improving their soil health, maybe by changing their pasture composition and condition, maybe by investing in trees on their farms – then their profitability might improve, because they might be able to maintain production but reduce expenses or maybe increase marking rates or improve livestock performance without actually spending any more money."

AWI's Program Manager, Fibre Advocacy & Eco Credentials, Angus Ireland, says AWI's involvement in Farming for the Future will ensure the participation of more woolgrowers in the program, helping ensure the findings are robust and relevant to wool-growing enterprises.

"The program aims to provide the evidence and practical support that farmers need to plan and manage their investment in natural capital in a way that maximises both environmental returns and business prosperity."

Dr Sue Ogilvy, Farming for the Future Program Director

"Our participation in the Farming for the Future program seeks to provide the evidence and business case for interested Australian woolgrowers to simultaneously improve their natural capital and also meet market requirements," Angus said.

"The program will develop supporting tools that make this evidence relevant and accessible to woolgrowers, to inform their business planning and decision making, with specific insights on biodiversity."

The project aims to be able to share preliminary results by mid-2023.

Carbon Storage Partnership – helping farmers to improve their natural capital

The Carbon Storage Partnership aims to identify the most effective techniques for farmers across Australia to reduce greenhouse gas emissions, sequester carbon in soil and vegetation, and build biodiversity.

The Carbon Storage Partnership (CSP) is an MLA-led, multi-party initiative that is developing profitable and sustainable pathways to a carbon-neutral Australian livestock sector by 2030. The CSP work program commenced in mid-2021 and is being managed by Associate Professor Matt Harrison at the University of Tasmania, with the project team distributed across the breadth of southern Australia, thereby facilitating regional engagement.

The collaborative project is using multiple years of satellite imagery and farming system models to identify the most effective and regionally relevant techniques to reduce net farm greenhouse gas (GHG) emissions and increase biodiversity, depending on agro-ecological region, prevailing climate type and across different sheep enterprise mixes.

"The value of AWI's involvement in the CSP will be the inclusion of wool-growing properties in the analysis and assessment," said AWI's Program Manager, Fibre Advocacy & Eco Credentials, Angus Ireland.

"There's a wide variety of interventions that woolgrowers can take, from changed grazing management to carbon sequestration in soil, under legumes, and in trees and shelterbelts, etc. But there's no 'one size fits all' rule – the need to customise solutions to suit different farms is clear. A farm located in a high-rainfall, summer-growing environment will need very different interventions to sequester carbon compared to a low-rainfall, winter-growing, pastoral enterprise.





Government boost to AWI investment in methane-reducing supplements for grazing sheep

The Australian sheep and wool industry has received a boost in its strategy to reduce the on-farm production of greenhouse gas emissions, through extra funding of research into feed supplements for grazing sheep, which aim to reduce the amount of methane that they belch.

“Our aim is to take as much risk out of this process for woolgrowers as we can – so they can adopt pathways that are proven to work in their environment.

“Importantly, AWI’s involvement will broaden the project’s scope from its focus on pathways to carbon storage to also include pathways to biodiversity improvement.

“The project will result in the identification and adoption of environmental practices by woolgrowers that will help brands demonstrate planet-friendly farming practices across their supply chains.”

Angus Ireland, AWI Program Manager

“Evidence will be collected on biodiversity trends over time on wool-growing properties where these interventions have been applied, helping to address a key knowledge gap for the wool industry and preparing our industry for inclusion of biodiversity indicators in environmental rating schemes such as the EU’s Product Environmental Footprint.

“Outcomes of this research program will help position the Australian wool industry as a proactive, socially-responsible and forward-looking steward of the environment.”

The extension of program results to farmers will be critical and is anticipated to occur through AWI’s communication channels as well as a nationally coordinated network of extension officers, farmers, grower groups, consultants, and Landcare Australia.

“Along with the channels of AWI’s marketing arm, The Woolmark Company, this will facilitate national and global awareness of the good work being done in the Australian wool industry,” Angus added.

The project is scheduled to be completed in early 2025.

B

AWI’s investment to reduce methane emissions from grazing sheep received a boost in October when the Federal Government announced its selection of projects that will receive funding under Stage 2 of its Methane Emissions Reduction in Livestock (MERiL) Program.

All three projects for which AWI supported applications will now receive funding totalling \$1.5 million from the Federal Government. This is in addition to a \$400,000 contribution from AWI and \$128,461 from other collaborators, resulting in a total value (cash and in kind) for the projects of more than \$2.3 million.

AWI’s Program Manager, Fibre Advocacy & Eco Credentials, Angus Ireland says these three projects are part of a broader strategy by AWI in collaboration with other industry bodies to accurately identify and assess ways to reduce and offset greenhouse gas emissions from sheep.

“This work sits within the National Sheep Methane Program and is a collaborative and coordinated effort between AWI and the departments of primary industries and universities in the main wool-producing states, to implement practical and safe ways for producers to reduce methane emissions from Australian sheep wool and sheep meat grazing systems,” Angus said.

“As a business, AWI is committed to reducing its environmental impact across the entire industry and the farming stage is a key focus area for reducing greenhouse gas emissions. We invest in sound, scientific solutions to help secure wool’s market position as a natural, circular and regenerative solution to many impacts of fast fashion.”

To optimise the eco-credentials of Australian wool and ensure that it is acknowledged as a sustainable fibre by all, AWI is devoting resources to remedy any

environmental hotspots in the wool supply chain. AWI research has identified methane-mitigating feed supplements for grazing sheep as having significant potential to reduce the carbon footprint of wool within the next 10 years. It is a priority area for investment.

Specifically, the three new projects will:

1. adapt and evaluate a range of methane-reducing feed additives to grazing sheep as a feed additive or via drinking water (in collaboration with the Department of Primary Industries and Regions South Australia, the University of Western Australia, DIT Agtech, Rumin8 and Feedworks).
2. evaluate the feasibility of using Radio Frequency Identification technologies to improve methane-reduction supplement design and delivery in conjunction with common delivery systems such as lick feeders (in collaboration with the NSW Department of Regional NSW).
3. develop a novel paddock solution to deliver methane-reducing supplements to grazing sheep (in collaboration with the University of New England with Feedworks).

“This new work builds on the MERiL Stage 1 project currently underway and will help support the projects planned under MERiL Stage 3. AWI’s seed funding of \$3 million in this important field of research is proving effective in magnifying woolgrower levy funding – typically more than tripling the total project funding,” Angus added.

The Stage 1 project, underway with the University of New England, is undertaking grazing and pen studies in northern NSW to quantify the relationship between the intake of the red algae *Asparagopsis* and the daily methane produced by grazing sheep, plus any associated wool and live weight changes in the sheep.

B

How to worm your way out of a wet season

At lambing and during lactation, a ewe's immunity to worms temporarily declines. It is also important to minimise worm infections of your lambs as they have little immunity to the parasite – worms can affect lambs' growth and even survival rates.

With many sheep-producing areas across Australia experiencing wetter than average seasonal conditions, the headaches of trying to keep up with worm management continues. This season, the key focus is to understand how to deal with higher parasite burdens than usual, both in the sheep and on the paddock.

It's important to consider the key concerns of worm control following a season like this, such as:

- Worm numbers can increase very rapidly with the ongoing presence of warm temperatures and moist conditions.
- Usual pasture rotations may not be as effective in managing pasture larval burdens as they would under normal or average seasonal conditions (which is why you will be seeing sheep reinfected with worms sooner than usual).
- There may be less opportunity to avoid heavily contaminated pastures

(see point above and consider your pastures to be 'dirty').

- Managing contamination with eggs and larvae on pastures will be less effective with regular falls of rain and milder temperatures.

This all leads to potentially more headaches, and most likely more treatments than what you would administer in a more average season. With this in mind, the best tools in the toolbox for managing worms in your sheep flock this year is the WormBoss suite of tools, featuring your next go-to tool, the WormBoss *Drench Decision Guide*.

Looking for a guide more tailored to your region?

There are WormBoss *Drench Decision Guides* tailored for every sheep production region (see map below) that can assist your decision on whether to drench now, whether to use a persistent drench and when to *WormTest* again.



Access the WormBoss *Drench Decisions Guides* via www.wormboss.com.au/tests-tools/choosing-and-using-drenches. They are very simple and quick to use.

How does the WormBoss Drench Decision Guide work?

Simply choose your region and select the answer that applies to the mob of sheep you are considering drenching.

A tailored report will then be produced showing the date, answers selected and a recommendation based off your answer with associated information.

The *Drench Decision Guides* are suitable for most situations; however, they cannot account for every factor affecting the overall health of your sheep. Always consider seeking professional advice specific to your property and sheep. B

More information

www.wormboss.com.au



TOP TIPS

for effective worm management in your sheep flock

- 1. Worm test:** If you are not regularly conducting worm egg counts (WECs), then do yourself and your sheep a favour and start doing it today! It's a cost-effective way of staying ahead of the game with worms, and avoiding things getting out of control (use a WEC QA approved lab – you can find a list of these on the WormBoss website).
- 2. Use an effective product** (effective equates to a 95% or higher reduction in worms) that contains at least TWO active ingredients and use the correct dose rate (drench to the heaviest in the mob, and if there is a large variation, consider splitting the mob into heavy and light to avoid over and/or under dosing).
- 3. Follow up** drenching activities with another WEC – to check that the product/treatment has been effective.
- 4. Continue to monitor** your mobs for increases in WECs and treat as mobs reach thresholds. MONITORING is the key point here – and careful, attentive monitoring can prevent avoidable adverse events, and help keep your stock thriving.
- 5. Know the relative susceptibility** of the different classes of livestock on your farm and the types of worms that you normally see (a larval culture will determine this).

AWI's Flystrike Extension Program

Reducing the impact of flystrike remains a priority for the Australian sheep industry – and AWI is committed to helping woolgrowers tackle this significant sheep health and welfare issue through its comprehensive Flystrike Extension Program.

AWI's Flystrike Extension Program supports woolgrowers to improve the lifetime welfare of their sheep, reduce their reliance on mulesing and crutching, optimise chemical use and increase whole farm profitability through the provision of practical information and tools and access to accredited advisor support on flystrike management.

Woolgrowers can pick and choose how to get involved with the different components of the program that best suits their requirements, sheep type, climate, operating environment and husbandry practices.

It's Fly Time!™

Practical, just-in-time **information** in the lead up to, and during, high-risk flystrike periods. *Available now.* See www.wool.com/itsflytime

DemystiFly™

Practical **information** about managing chemical resistance in blowflies. *Available now.* See www.wool.com/demystify

SimpliFly™

A one-day **workshop** to develop a property-specific, strategic flystrike management plan. *Available now.* See www.wool.com/simplify

ClassiFly™

A one-day **workshop** to increase understanding and skills in breeding for flystrike resistance. (This initiative is under development and will be launched in 2023.)

StrateFly™

A one-day **workshop** to develop a property-specific, whole-of-farm strategy for moving to a non-mulesed enterprise. (This initiative is under development and will be launched in 2023.)

AmpliFly™

One-on-one **coaching** and support from a trained and accredited advisor to assist you to implement, monitor and improve your whole-of-farm plan for preventing and controlling flystrike. (This initiative is under development and will be launched in 2023.) **B**

More information

- AWI's Flystrike Extension Program: www.wool.com/flystrikeresources
- Flystrike management, including access to interactive decision support tools: www.flyboss.com.au
- AWI's Flystrike Research, Development and Extension Program: www.wool.com/flystrike

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Upgraded ParaBoss websites help give parasites the flick



Woolgrowers looking for information to combat sheep parasites – worms, lice and flies – will now find it easier to do so, thanks to a recent upgrade of the popular parasite management websites WormBoss, LiceBoss and FlyBoss, together known as ParaBoss.

Collectively, the three Boss websites – WormBoss, FlyBoss and LiceBoss – provide woolgrowers with tailored information and promote best practice for the management of sheep parasites at the farm level.

For the first time since the original development of ParaBoss in 2014, the websites have received a major upgrade, making it easier and quicker than ever for woolgrowers to find information relevant to their region and season.

The websites have been developed and are managed by a community of veterinary experts and parasitologists from across Australia.

What has changed?

- **Improved search results:** Designed with simplicity in mind, the upgraded websites enable producers to select their specific region and the season they're seeking information for, and they'll be presented with resources tailored specifically to their needs. Woolgrowers from Queensland, for instance, when seeking information for Summer just need to select Sheep > Queensland > Summer in their respective search fields to narrow their search results.
- **Intuitive tools:** The various parasite risk and treatment interactive tools have been redesigned to improve their interface, making them more intuitive and streamlined so that they work faster and follow a more logical process.
- **Interactive 'find an advisor' map:** Searching for a nearby ParaBoss-certified advisor has never been easier. Producers simply choose the region of interest and a

map of local advisors is generated.

- **Calendar of events:** To ensure producers never miss out on information crucial for managing their livestock, the new website provides details on all upcoming ParaBoss events.
- **MyParaBoss:** This is a new easy-to-use area for subscribers and members, where interests can be identified and changed and subscriptions to e-newsletters can be modified.

The redeveloped suite of websites is part of a broader project – funded by AWI, Meat and Livestock Australia and Animal Health Australia – which also includes a targeted and tailored livestock extension, communication, and awareness program. The aim is to ensure producers are provided with relevant and timely communications, a producer-centric website and interactive tools, as well as a national network of extension activities and accredited advisors (see opposite page).

As well as containing information for sheep producers, ParaBoss has information for cattle and goat producers. The ParaBoss suite also includes TickBoss which contains information for cattle producers about ticks.

The ParaBoss websites are set to undergo periodic reviews, which will be guided by user feedback and website analytics. The ParaBoss team is seeking user feedback, so head online, explore the information and tools, and share your feedback on the site. **B**

More information

www.paraboss.com.au



Sheep Crutching

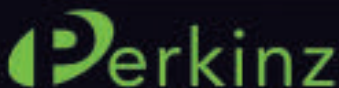


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Get up to scratch with ParaBoss certified advisors and providers

To ensure they receive the best guidance about sheep parasite management, woolgrowers are being encouraged to seek out and use advisors certified by ParaBoss. Woolgrowers are also urged to use ParaBoss certified worm egg count (WEC) providers to ensure they receive accurate WEC results.

ParaBoss certified sheep advisors

ParaBoss certified sheep advisors have completed the ParaBoss Certificate in Sheep Parasite Management and therefore have the skills and knowledge to apply, and provide advice to others about, effective integrated parasite management of sheep.

Sheep parasites cost sheep and wool producers through production losses and the direct costs of treatment and control.

"Understanding how to reduce the impact of sheep parasites is critical to lowering the cost to producers, and the ParaBoss Certificate in Sheep Parasite Management gives advisors and producers the platform to gain this knowledge," said Executive Officer of ParaBoss Advisor Training, Deb Maxwell.

The ParaBoss Certificate covers the core information from WormBoss, FlyBoss and LiceBoss. Since the course began less than one year ago, more than 200 advisors have completed it.

Many of the graduates are livestock veterinarians and frontline advisors from industry leading rural merchandise companies such as Elders and Nutrien, and pharmaceutical companies Elanco and Boehringer-Ingelheim, which enrolled all of its technical and field staff through the ParaBoss Certificate.

The advisors all found their knowledge and expertise have significantly improved – and they are now confidently providing expert advice about effective integrated parasite management of sheep to producers across the country.

"I now have the confidence to work with my clients to tailor a program for their situation in every season and make changes as things change," said Ian Sellers of Nutrien Ag Solutions, who provides frontline advice to producers.

Adam Turnbull, Senior Livestock Production Advisor with Elders, said: "The course provides a good baseline of knowledge for producers and advisors alike, covering multiple scenario situations across many states to provide knowledge over a wide area."

"The course was relevant and loaded with useful information. I not only enjoyed the content, but really got into each section. Because my region (NSW central west and north-western) covers several ParaBoss regions, it was great to be able to complete the regionally specific work."

Andrew Brewer, Elanco



paraboss
Certified Sheep Advisor ✓

ParaBoss certified WEC QA service providers

These providers have demonstrated the accuracy and precision of their WEC services through the ParaBoss WEC QA program, so producers can be certain their worm control decisions are based on accurate results.

The wet weather is set to continue throughout the 2022/23 summer, creating a perfect environment for increased survival and multiplication of worms in sheep with high levels of vegetation cover on paddocks, high levels of moisture in the soil and high humidity at ground level. This makes it all the more important for sheep producers to be vigilant with monitoring, and increase the frequency of worm egg counts in their flock.

Inaccurate worm egg counts can result in producers missing the optimum drench time: too late and there will be lost productivity and animal welfare impacts; too early and drenching costs are not justified.

Producers need to know they are getting accurate counts, and by choosing a ParaBoss certified WEC QA service provider, they can be certain their results will be accurate.

The 2022 WEC QA round has just been completed, with the result that 60% of participating businesses immediately met the criteria for ParaBoss certification. A further 30% had some issues that, if addressed, will allow them to be certified. Unfortunately, 10% of participating businesses had major issues making them ineligible for certification in this round.

The ParaBoss WEC QA program continues to demonstrate its value by identifying businesses that can demonstrate proficiency, and with the current challenging worm control conditions, accurate WEC results are more important than ever. **B**

"This is a great opportunity to ensure our lab staff are up to scratch and do an annual check of our procedures."

Sara Bowers,
GYST Parasitology Services

paraboss
WEC QA Certified 2022 ✓



More information

Contact details for ParaBoss certified advisors and the 2022 ParaBoss certified WEC providers are available under the 'Find an advisor' tab on the ParaBoss website www.paraboss.com.au

Welfare and production ASBVs sorted by fibre diameter and wrinkle

There are 1,748 sires with 2020 drop MERINOSELECT progeny with a breech trait ASBV. Table 1 opposite groups these sires into six fibre diameter ASBV categories from less than -3.0 to greater than +1.0, based on the 7th of June 2022 MERINOSELECT run.

As the six fibre diameter ASBV ranges increase from less than -3.0 to greater than +1.0, the average wrinkle ASBV falls from +0.6 to -0.9. Also, as the six fibre diameter ASBV ranges increase, so does staple strength, fat, muscle, body weight, worm resistance, weaning rate; with dags and fibre diameter CV decreasing.

The table also groups the sires in each of the six fibre diameter categories into 20 percentile ranges on wrinkle. Sires in the 0-20% range have the lowest wrinkle, sires in the 81-100% the highest.

The 'less than 3 micron' category only has 55 sires in it and the 'greater than 1 micron' only 17 sires; care is also needed with the low numbers of sires within each of these wrinkle percentile ranges.

The other micron categories have from 185 to 630 sires in total and from 37 to 126 sires in each wrinkle percentile range.

Within most fibre diameter categories, as wrinkle increases, so does breech cover, fleece weight, staple strength, along with the relevant indexes. Muscle and fat decreases.

These are average statistics across many ram breeders, but the table does show the challenges ahead to breed low diameter, low breech wrinkle, high indexing Merinos.

Individual ram sellers will have different ASBV performance to the average and many ram breeders are pushing the boundaries, breeding rams with lower fibre diameter, lower wrinkle, higher fleece

weight, higher weaning rate and higher indexes than these averages.

Once a ram buyer chooses their preferred fibre diameter and wrinkle ASBV, the table does provide indicative ASBVs for a range of other key welfare and productivity traits, and where ram buyers might also push the boundaries. **B**

More information

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Merino Superior Sires No 28 released

Results from 11 Merino Sire Evaluation sites operating around Australia, detailing the measured and visual performance of close to 400 of Australia's leading Merino sires, are available in the latest version of Merino Superior Sires.

Published annually by the Australian Merino Sire Evaluation Association (AMSEA), the current Merino Superior Sires is the 28th edition of this long running and sought-after industry resource.

Merino Superior Sires publishes Australian Sheep Breeding Values (ASBVs) for a wide range of both measured and visually classed traits that are collected as a part of the rigorous and independent assessment program that AMSEA oversees through its network of industry managed sites. In addition, an independent Classer's Grade is also reported giving users an insight into the conformation and wool quality traits that is not expressed through an ASBV.

The current edition of Merino Superior Sires includes, for the first time, results from the Dohne trial that is hosted by the Holt family at 'Coonong Station', near Urana in the Riverina region of NSW. This is an exciting development for Merino Sire Evaluation resulting in Dohne, Merino and Poll Merino sires all being directly compared to each other.

Also available this year, via the Merino Superior Sires website, is a report that details the results of the Top 20 highly used sires that have been entered in Merino Sire Evaluation. The Late Fleece Rot trait has been added for the



Merino Superior Sires No 28 is available for download at www.merinosuperiorsires.com.au or in hard copy by contacting merinosuperiorsires@bcsagribusiness.com.au

first time this year. Together, the Top 20 sires have contributed more than 44,000 progeny to the MERINOSELECT database and no doubt many more in flocks that are not recorded in MERINOSELECT. The results show the leading Merino Sire Evaluation sires that breeders have been using over the past five years. **B**

More information

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Table 1. The performance of 1,748 MERINOSELECT sires with 2020 drop progeny with breech wrinkle ASBVs, grouped by fibre diameter ASBVs and wrinkle percentiles

FD ASBV Range	No of sires	EBWR Score	LDAG Score	EBCOV Score	YGFW %	AGFW %	YCFW %	ACFW %	YFD Micron	YDCV %	YSS N/Ktex	YEMD mm	YFAT mm	YWT kg	YWEC %	WR Lambs	DP+ Index	MP+ Index	FP+ Index
Sires <-3 FD ASBV, Indicator adult micron 15-16																			
Wrinkle 20% percentiles low to high wrinkle																			
Min 0-20%	11	0.1	0.0	0.2	9	3	12	8	-3.2	-0.1	-2.3	0.0	-0.3	3.2	1	0.05	159	162	159
20-40%	11	0.4	0.0	0.2	13	7	15	11	-3.3	-0.4	-1.6	-0.2	-0.2	1.4	-21	0.02	152	163	164
41-60%	11	0.5	0.1	0.2	14	8	16	13	-3.4	-0.6	-1.3	-0.4	-0.3	0.7	-2	0.02	154	168	168
61-80%	11	0.8	0.0	0.1	15	11	17	16	-3.4	-0.7	-0.7	-0.7	-1.0	1.2	8	-0.08	151	168	168
81-100%	11	1.1	0.1	0.2	19	15	19	19	-3.5	-0.4	-0.7	-0.9	-0.9	0.8	8	-0.10	155	174	173
Sires <-3 FD ASBV ave	55	0.6	0.0	0.2	14	9	16	13	-3.4	-0.4	-1.3	-0.4	-0.5	1.5	-1	-0.02	155	167	166
Sires -2 to -3 FD ASBV, Indicator adult micron 16-17																			
Wrinkle 20% percentiles low to high wrinkle																			
Min 0-20%	52	-0.5	-0.1	-0.1	10	4	13	9	-2.3	-1.0	-1.0	0.3	0.1	5.3	-10	0.06	157	157	151
20-40%	52	0.0	0.0	0.0	17	13	19	17	-2.4	-0.3	-1.8	-0.3	-0.5	5.2	6	0.02	162	166	157
41-60%	52	0.3	0.1	0.0	20	14	23	19	-2.3	-0.4	-1.0	-0.4	-0.5	5.3	10	0.03	166	173	161
61-80%	52	0.6	0.0	0.2	19	13	22	19	-2.4	-0.5	-0.9	-0.6	-0.6	3.6	11	0.01	159	169	161
81-100%	52	1.0	0.1	0.3	22	18	24	23	-2.4	-0.3	-0.1	-0.9	-0.9	2.7	17	-0.02	160	174	166
Sires -2 to -3 FD ASBV ave	260	0.3	0.0	0.1	18	12	20	18	-2.4	-0.5	-1.0	-0.4	-0.5	4.4	7	0.02	161	168	159
Sires -1 to -2 FD ASBV, Indicator adult micron 17-18																			
Wrinkle 20% percentiles low to high wrinkle																			
Min 0-20%	126	-0.8	-0.1	-0.2	13	6	15	11	-1.4	-1.3	-0.3	0.7	0.4	7.0	-9	0.07	158	153	142
20-40%	126	-0.4	0.0	-0.1	17	11	20	17	-1.4	-0.9	-0.1	0.5	0.0	7.0	-6	0.07	168	163	150
41-60%	126	-0.1	0.0	0.0	20	13	23	19	-1.4	-0.6	0.0	0.2	-0.2	6.4	1	0.07	168	166	152
61-80%	126	0.2	0.1	0.0	19	14	22	20	-1.5	-0.4	0.0	-0.1	-0.4	5.5	9	0.07	163	165	152
81-100%	126	0.6	0.1	0.2	21	16	24	21	-1.6	-0.4	0.3	-0.4	-0.5	4.3	8	0.02	161	167	155
Sires -1 to -2 FD ASBV ave	630	-0.1	0.0	0.0	18	12	21	18	-1.5	-0.7	0.0	0.2	-0.1	6.1	1	0.06	164	163	150
Sires 0 to -1 FD ASBV, indicator adult micron 18-19																			
Wrinkle 20% percentiles low to high wrinkle																			
Min 0-20%	121	-1.1	-0.2	-0.4	11	3	14	9	-0.5	-1.4	0.4	1.7	1.0	7.9	-19	0.13	163	146	132
20-40%	120	-0.7	-0.1	-0.3	16	10	20	16	-0.5	-1.2	1.4	0.9	0.5	7.4	-8	0.09	165	156	141
41-60%	120	-0.4	-0.1	-0.2	18	11	21	17	-0.5	-1.0	1.4	0.9	0.5	7.2	-12	0.13	171	161	144
61-80%	120	-0.1	0.0	-0.1	21	15	24	21	-0.6	-0.7	1.4	0.4	0.2	6.8	-7	0.12	170	165	148
1-100%	120	0.4	0.1	0.0	23	18	26	24	-0.6	-0.4	1.7	-0.1	-0.3	5.9	3	0.09	166	166	149
Sires 0 to -1 FD ASBV ave	601	-0.4	-0.1	-0.2	18	11	21	17	-0.5	-1.0	1.3	0.8	0.4	7.0	-9	0.11	167	158	143
Sires 1 to 0 FD ASBV, Indicator adult micron 19-20																			
Wrinkle 20% percentiles low to high wrinkle																			
Min 0-20%	37	-1.3	-0.2	-0.6	12	5	16	12	0.5	-1.3	0.7	2.1	1.4	8.9	-4	0.12	163	140	121
20-40%	37	-0.9	-0.2	-0.5	13	6	16	11	0.3	-1.6	1.3	1.9	1.1	7.7	-19	0.12	161	141	125
41-60%	37	-0.7	-0.2	-0.2	18	11	22	18	0.4	-1.1	2.1	1.4	0.9	8.1	-17	0.18	174	156	137
61-80%	37	-0.4	-0.1	-0.2	19	12	23	20	0.4	-1.2	3.2	1.1	0.7	7.5	-17	0.17	174	159	140
81-100%	37	0.1	-0.1	-0.1	25	17	28	25	0.3	-1.3	4.2	0.7	0.4	7.8	-8	0.20	182	171	149
Sires 1 to 0 FD ASBV ave	185	-0.6	-0.2	-0.3	17	10	21	17	0.4	-1.3	2.3	1.5	0.9	8.0	-13	0.15	171	153	134
Sires >1 FD ASBV, Indicator micron 21-22																			
Wrinkle 20% percentiles low to high wrinkle																			
Min 0-20%	4	-1.4	-0.1	-0.7	8	2	11	9	1.4	-1.4	1.7	2.5	1.8	6.6	-40	0.09	145	119	106
20-40%	3	-1.0	-0.2	-0.4	16	9	21	16	1.3	-1.6	2.1	1.8	1.0	11.3	-10	0.06	158	137	117
41-60%	3	-0.9	-0.1	-0.4	6	-1	11	5	1.2	-1.6	1.6	3.1	1.5	7.5	-18	0.20	161	127	111
61-80%	3	-0.6	-0.1	-0.1	13	8	17	15	1.3	-0.7	3.3	1.5	1.1	5.8	0		156	134	116
81-100%	4	-0.4	-0.2	-0.3	18	10	23	17	1.4	-1.5	3.2	1.7	1.2	9.5	-25	0.19	176	153	131
Sires >1 FD ASBV ave	17	-0.9	-0.1	-0.4	12	6	17	13	1.3	-1.4	2.4	2.1	1.3	8.1	-20	0.12	159	134	117
Sire total & aves	1748	-0.2	0.0	-0.1	18	11	21	17	-1.1	-0.8	0.5	0.4	0.1	6.2	-3	0.08	165	161	147
All 2020 progeny	Aust & NZ	-0.2	-0.1	-0.1	14	9	17	14	-1.0	-0.9	0.7	0.6	0.2	5.4	-15	0.07	156	152	141

The indicative average phenotypic adult ewe fibre diameters are based on a range of AWI trials. Breeders need to validate their ASBV and phenotypic micron for their country and management program. Analysis based on MERINOSELECT data run date 7th June 2022

Abbreviations: EBWR (Early Breech Wrinkle), LDAG (Late Dag), EBCOV (Early Breech Cover), YGFW (Yearling Greasy Fleece Weight), AGFW (Adult Greasy Fleece Weight), YCFW (Yearling Clean Fleece Weight), ACFW (Adult Clean Fleece Weight), YFD (Yearling Fibre Diameter), YDCV (Yearling Diameter C of V), YSS (Yearling Staple Strength), YEMD (Yearling Eye Muscle Depth), YFAT (Yearling FAT), YWT (Yearling Body Weight), YWEC (Yearling Worm Egg Count), WR (Weaning Rate), DP+ (Dual Purpose Production Plus Index), MP+ (Merino Production Plus Index), FP+ (Fibre Production Plus Index)

MLP – Wrapping up at MerinoLink and Pingelly sites



Merino Lifetime Productivity Project

MLP QUICK FACTS

The AWI-funded MLP project is a \$13 million (\$8 million from AWI plus \$5 million from project partners), 10-year venture between AWI, the Australian Merino Sire Evaluation Association (AMSEA), nominating stud Merino breeders and site partners.

- **Balmoral, Vic**
Partner: Tuloona Pastoral Committee; Balmoral Breeders Association
- **Pingelly, WA**
Partner: Murdoch University/UWA Committee: Federation of Performance Sheep Breeders (WA Branch)
- **MerinoLink, Temora, NSW**
Partner: Moses & Son Committee: MerinoLink Inc.
- **Macquarie, Trangie, NSW**
Partner: NSW DPI Committee: Macquarie Sire Evaluation Association
- **New England, NSW**
Partner: CSIRO Committee: New England Merino Sire Evaluation Association

The MLP project is tracking the lifetime performance of 5,700 ewes as they proceed through four to five joinings and annual shearings.

A full suite of assessments will be undertaken including visual trait scoring, classer gradings, objective assessments of a range of key traits and index evaluations.

A unique and extensive dataset will result and be used to enhance existing Merino breeding and selection strategies, for both ram sellers and buyers, to deliver greater lifetime productivity and woolgrower returns.

To stay up to date with the latest MLP findings, visit www.wool.com/MLP.
Subscribe to MLP updates via www.merinosuperiorsires.com.au/contact-us

The MerinoLink and Pingelly Merino Lifetime Productivity (MLP) sites recently hosted their final field days. Read on for a report of both and early analysis insights.

In March this year the Balmoral site wrapped up its lifetime data collection, with MerinoLink set to end in November and Pingelly in December, leaving just the Macquarie and New England sites continuing to collect lifetime data. Both MerinoLink and Pingelly hosted their final field days during October with the MLP sheep on display for the final time.

The final **MerinoLink field day** was held at Temora on 14 October under extremely wet conditions. With widespread flooding leading to road closures, and with many farms juggling delays to shearing, the field day drew a crowd of 50 via 4WD access. A celebratory dinner preceded the day where the site was recognised for the hard work it had undertaken to annually measure, class, score and join the ewes through life. Ben Swain from AMSEA addressed the dinner by sharing some of the data extremes at the MerinoLink site, and the MLP site manager Lexi Cesnik shared several of the site's fun facts.



Ram entrant **John Sutherland** with progeny from Pooginook Poll 140632.



Ram entrant **Graham Wells** with One Oak No.2, R56.

The MerinoLink ewes, the daughters of 25 industry sires, presented well at the field day despite the extremely wet seasonal conditions. At 6½ and 5½ years of age, some sire groups had a full mouth of teeth while other groups had a prevalence of broken mouths. On the day of the field day, the sire groups were introduced and latest results outlined; while most sire groups were performing as predicted, the performance of several traits at times wasn't as expected.

Meanwhile, the **Pingelly field day** on 21 October attracted a crowd of 80. The day involved a line-up of five formal presentations which were followed by inspection of the ewes, the daughters of the 29 industry sires. The presentations were based on Pingelly data alone, although it is intended that the full project analysis will be extended across all five sites data once collected.

Presenting on the day was MLP site manager Dr Bronwyn Clarke who outlined the outcome from visual classing and how early flock breeding values related to lifetime productivity. Bronwyn's message was that, based on one drop at Pingelly, early flock breeding values for fleece and growth were reasonable predictors of lifetime performance, while lifetime reproduction wasn't well predicted by one or two years of assessment. Bronwyn also showed that classers were able to significantly improve wool quality, wool cut and liveweight in the year that ewes were classed.

Dr Peter Wahinya from the Animal Genetics Breeding Unit (AGBU) shared an analysis that explored whether there is value in correcting adult wool traits and pre-joining body traits for repro status. Peter's work showed that a ewe's past reproduction affected her performance for wool, growth and body composition. However, the effect is less apparent when data is reported at the sire level given sires have multiple daughters with varying reproduction outcomes. Peter also emphasised that being a dry ewe had the largest impact on production although dry ewes only represented 6% of the Pingelly flock.

Professor Daniel Brown also from AGBU, explored the profile of sires entered at the Pingelly site and the drivers of weaning rate breeding values based on the first three and four years of production. His analysis of the Pingelly data showed that



Pingelly field day presenters from AGBU: Prof Daniel Brown, Dr Peter Wahinya and Dr Sam Walkom.



Pingelly site committee: Bill Sandilands, Prof Andrew Thompson, Tim Watts, Jarryd Krog, Brett Jones, Steve Bolt, Ashley Hobbs, Mark Allington and Dr Bronwyn Clarke.

reproduction had small relationships with most traits, but sires that had higher reproduction tended to have larger body weight, higher fat and muscle, longer staples, lower fleece weight, broader wool, and less wrinkle. Daniel stressed that these related traits combined only explained 31% of variation in reproduction at Pingelly, and that ram breeders and buyers wanting to improve reproduction would be best served by selecting for reproduction directly and that it was inefficient to select for the other traits to improve reproduction.

AGBU's Dr Sam Walkom presented on behalf of colleague Professor Andrew Swan who had undertaken an analysis to explore the contribution of lifetime production on whole flock annual wool income, based on data from the Pingelly trial. The scenarios presented showed that wool harvested from ewes and wethers up until two years of age contribute 43% to 54% of whole flock annual wool income, which supports the current ratio of contribution found in the standard industry indexes. MERINOSELECT indexes are currently under review and are due to be updated in April 2023.

AWI's Geoff Lindon wrapped up the formal presentations outlining next steps for the MLP analysis, the kinds of questions the analysis team will be answering and the expected timeline before we start to see results that have been analysed across the five sites.

Finally, site chairman Brett Jones led the crowd through 30 pen side sire introductions and outlined why each sire had been selected and how they had performed. Like the MerinoLink site, many sires were performing as predicted although there were some exceptions.

Both field days received exceptionally positive feedback.



MerinoLink site committee: Andrew Bouffler, Adele Smith, Lexi Cesnik, Mark Mortimer, Greg Sheather, Rich Keniry, Marty Moses, Jim Meckiff, John Sutherland and Michael Field.

Thanking the sites

The project would like to sincerely thank Marty Moses and the team from Moses & Son for hosting the MerinoLink site, particularly under some very tough climatic conditions. As key partners, we also thank Rich Keniry and the MerinoLink team for their facilitation and guidance of the MerinoLink site, and we also recognise the substantial time that each member of the site committee contributed to provide support over the past seven years.

We also recognise the work contributed by Lexi Cesnik as MerinoLink site manager, and Sally Martin who was involved in the establishment of the site.

Murdoch University in conjunction with the University of Western Australia are thanked for creating a prodigious Western Australian site and we recognise their significant contribution as hosts of the Pingelly site. We also recognise the support of Brett Jones and the site committee who contributed countless hours of their own time to guide the project.

A thanks also goes to Bronwyn Clarke who capably led the site and to the Murdoch team who provided highly skilled technical support.

Across the two sites, we recognise the classers and thank them for their involvement and preparedness to have their results publicly scrutinised annually. Finally, we recognise the sire entrants who nominated sires, sire owners who were prepared to be involved, and we thank you for making this important project possible. **B**

Upcoming MLP field day

MACQUARIE FINAL FIELD DAY –
Wednesday March 29, 2023 –
Trangie Agricultural Research Centre

Predictors of AI success

The University of Sydney, supported by AWI and the NSW Stud Merino Breeders' Association Trust, is conducting research to determine the factors that influence the success of laparoscopic artificial insemination (AI) of sheep.

Artificial insemination is a vital reproductive technology that underpins rates of genetic gain for seedstock producers and by extension the broader industry. This research will address the anecdotal reports of variable fertility following AI as well as possible waning adoption rates in some parts of the country. To investigate this issue, the University of Sydney team, led by Dr Jess Rickard, is collecting data on male and female factors, at many sites across Australia, over

several years and multiple AI programs.

To date, the project has been working closely with programs run by the Australian Merino Sire Evaluation Association (AMSEA) and six ram breeders across most states and ewe types, collecting data on female factors at the time of AI, including age, semen used, time of AI in relation to CIDR pull, uterine tone and intra-abdominal fat score. A subset of the actual semen used for AI in these programs is then sent to the lab for advanced semen diagnostics, including motility, morphology, concentration, DNA integrity, viability as well as membrane fluidity and acrosome integrity. These factors will then be built into a model to explain the pregnancy results obtained.

In the first two years, the project has collected semen from more than 300 sires and data on more than 25,000 ewes, forming the largest collection of sheep AI data in Australia. Another year's data is being collected during the 2022/23 joining season.

A study of this type has never been undertaken in sheep and will establish a capability to predict the success of AI programs as well as recommend new semen standards for the artificial breeding industry. This could reduce some of the risks associated with laparoscopic AI programs, increasing success rates and hopefully the adoption rate for woolgrowers. Ultimately this would ensure that woolgrowers can maximise the genetic benefits associated with using frozen-thawed semen from elite sires.

If you are running an AI program this year with more than 500 ewes and two sires and you are interested in knowing more about the project or being involved, please get in contact with Dr Jessica Rickard. **B**

More information

Dr Jess Rickard,
University of Sydney, 0421 633 775,
jessica.rickard@sydney.edu.au



Professor Simon de Graaf and Dr Jess Rickard from the University of Sydney.

Sexed semen

Use of sexed semen in sheep breeders' AI programs is gathering momentum, with an estimated 10 ram sellers using the technology in this coming joining season.

The outcome of the sexing is around 90 to 95% lambs of the sex chosen by

the breeder. Some breeders choose male lambs to increase ram sale numbers and overall income; others choose ewe lambs to increase the speed of building up a unique breeding ewe flock.

Prof Simon de Graaf studied the sexed semen technique during his PhD in the mid-2000s and was supported by a Sheep CRC top-up scholarship. Though highly successful in a research setting following this PhD work, commercial availability of sexed ram semen was limited until further AWI-funded projects improved the quality of sperm produced from the sexing process and refined its implementation into modern timed artificial insemination programs. Following a successful field trial in Victoria, sexed ram semen was released globally in

the late 2010s.

Australia's only sex-sorting facility is located at STgenetics in Camperdown, Victoria. Normally, rams are taken to semen collection facilities nearby, their semen sorted over the course of a day and left in liquid form before overnight road transportation to the location of the AI program to be conducted the following day. As with all artificial breeding, male-factor fertility risk is best managed by using multiple sires in a sexed semen AI program. **B**

More information

www.simondegraaf.com/post/sexed-ram-semen or listen to www.reproradio.com/post/episode-4-sexed-semen

KEY MESSAGES

- The largest rate of genetic gain in the number of lambs born per ewe is achieved by measuring reproduction directly.
- Yfat ASBVs explain only a small portion of the variation in number of lambs weaned. There are many other factors influencing reproductive performance of ewes.
- Ultrasound carcass traits and fleece weight within Merino types were negatively correlated and ranged from -0.13 to -0.42, meaning that fatter and more muscled animals had lighter fleece weight genetically. This is only a low to moderate correlation. Some breeders are breeding rams for both higher fleece weight and higher fat.
- The heritability of reproduction is low, therefore besides decisions on ram purchases, it is important to manage ram and ewe health and nutrition - see Ramping Up Repro (www.wool.com/rur) and Lifetime Ewe Management (www.wool.com/LTEM).

Fat, muscle, reproduction, efficiency, resilience and survival

For many woolgrowers, ewe lifetime reproduction is of critical importance to their flock productivity and profitability. Despite its value, reproduction is one of the more complex and costly traits to measure.

This has led to breeders looking for alternatives to genetically improve reproduction using indirect but correlated traits. These indirect traits include:

- Higher sire scrotal circumference
- Lower wrinkle
- Lower face cover and crutch cover
- Higher body weight and
- Moderate fleece weight.

More recently, fat and muscle measures on young animals at post weaning, yearling and hogget stages have gained popularity as an indirect means of improving reproduction.

An analysis using MERINOSELECT across flock data, that met a range of analysis criteria, looking across all Merino types from superfine, fine and medium wool, showed that **ewes** with an additional 1mm of Yfat ASBV (genetic fat) weaned 6% extra lambs (Brown and Swan 2016¹). It also showed, in contrast, analyses conducted **within-flock** suggest a lower relationship of 2% extra lambs per mm of genetic fat. At this level, fat and muscle have a similar influence on reproduction as the above listed correlated traits. The research also showed that **results have been variable across analyses and populations in different environments, and that genetic fatness may be more important in some years than others.**

The analysis of Brown & Swan (2016) showed that measuring reproduction directly increased the rate of gain in weaning percentage by between 4.3% and 6.0%, compared with the increase

from using fat and eye muscle depth of between 0.8% and 1.1%. If fat and eye muscle were measured and included, the rate of gain increased by a further 1.1%. **This points to the rule of thumb for genetic improvement, "that if a trait is important enough to be in an index, then it is important to directly assess that trait".**

Once all the Merino Lifetime Productivity (MLP) data collection is completed in 2024, a full analysis will be undertaken to further explore the genetic drivers of lifetime reproduction. This will also include a cost benefit analysis of how best to select for reproduction outcomes.

The MERINOSELECT Weaning Rate ASBV is made up of three component traits: Conception, Litter Size and Ewe Rearing Ability. The correlations with body weight, fat and muscle are included in the MERINOSELECT analysis of the three component traits, and there are plans to include wrinkle in the near future. Producers can select for the individual traits or more simply the Weaning Rate trait which combines the components into a single ASBV. While it is expensive for ram sellers to collect and present this data well (this includes roll calls at joining, pregnancy testing, lambing (mothering up via by lambing rounds or DNA) and weaning), genomic information is contributing to increased accuracies for reproduction ASBVs. Nearly half of all MERINOSELECT animals have a reportable weaning rate ASBV.

In the absence of the weaning rate ASBV there is value in:

- culling ewes that fail to rear at their first

or fail to rear thereafter (they can miss once in their life but not twice); and

- selecting for a combination of the indirect traits such as, higher scrotal circumference, body weight (within limits), fat, muscle and lower wrinkle and cover.

Improving reproduction within flock is slow. While it has a low heritability, there is variation that exists between ram selling flocks that can be exploited and progress can be achieved with determination and sticking to the core selection program over time.

Separate to reproduction, it is also important to recognise that there are other benefits in selecting for higher genetic fat such as requiring less supplementary feeding to maintain Lifetime Ewe Management targets at joining and lambing or increasing stocking rates. There are likely to be additional benefits of genetic fat given the ongoing R&D into resilience and feed efficiency to determine with greater accuracy the impact and value of fat and muscle for:

- increasing resilience
- increasing survival of the ewe and lamb
- improving meat eating quality
- favourable associations with resistance to internal parasites.

The potential cost/discounts of excess carcass fat in the supply chain also needs to be considered. B

References: ¹ Brown DJ & Swan AA 2016 "Genetic importance of fat and eye muscle depth in Merino breeding programs" *Animal Production Science* 56, 690-697 <http://dx.doi.org/10.1071/AN14645>

Pregnancy scanning – an ‘ultra sound’ investment averaging \$5.75/ewe profit

Major new research shows that pregnancy scanning has a high return on expenditure for sheep producers, with scanning for multiples increasing potential profit by an average of \$5.75/ewe scanned, across 27 scenarios that the researchers examined for winter rainfall areas. Scanning for multiples provided twice the value of scanning for only pregnancy status.



Pregnancy scanning conducted by a trained contractor with specialised equipment.
PHOTO: Cousins Merino Services

The results of new research funded by AWI and Meat & Livestock Australia (MLA) clearly show the value of pregnancy scanning for increased farm profitability. The main benefit of scanning is that it enables sheep producers to better meet the nutritional requirements of ewes of different litter sizes, including empty ewes, thereby increasing marking rates.

“Pregnancy scanning is a valuable tool for increasing reproductive efficiency and farm profitability but it has not been widely adopted. The 2021 AWI/MLA National Producer Survey revealed that 58% of producers do not scan their ewes and past research has indicated that the main reason for this is that they ‘see no benefit’,” said AWI Project Manager, Reproduction & Nutrition, Emmah Goldsmith.

“The outcomes of this project have proven that there is, in fact, a strong economic benefit of scanning. It is hoped that the communication of these results will drive up adoption of pregnancy scanning and lead to increases in lamb survival and weaning rates.”

The research project began in 2019 and was led by Associate Professor Forbes Brien of The University of Adelaide.

“The research involved an extensive benefit-cost analysis of the value of scanning

across a range of sheep producing regions and enterprise types,” Dr Brien said.

“It has resulted in a detailed and strong rationale for pregnancy scanning: profitable across all regions in the winter and summer rainfall regions of southern Australia, across all genotypes, and for all times of lambing that we examined.

“With a return on investment of 400% for sheep producers, pregnancy scanning for multiples can and should be a vital tool for improving reproductive rate, and lamb and ewe survival rates.”

Broad research parameters

The comprehensive economic analysis of the on-farm benefit of pregnancy scanning was undertaken for a range of regions, genotypes and times of lambing. The analysis was carried out for three winter rainfall regions with varying length growing seasons:

- **Long growing season** based on the Hamilton area in south-west Victoria
- **Medium growing season** based on the Darkan area in the Great Southern of WA; and
- **Short growing season** based on the Cunderdin area in central wheat belt of WA.

Analysis was also carried out for a summer rainfall region, the Northern Tablelands of NSW that is dominated by Merino fine wool production.

For each region, three lambing times (**autumn, winter, spring**) and three breed types were evaluated:

- **Merino** – a self-replacing Merino flock with emphasis on wool production.
- **Merino-Terminal Sire** – a self-replacing Merino flock utilising surplus ewes for first-cross lamb production. The emphasis is on meat and wool production.
- **Maternal** – composite ewes are mated to composite rams to produce composite lambs. The emphasis is on meat production.

The cost of scanning represented in the analysis included both the cost of the contractor and the labour cost associated with pushing the ewes through the scanning crate and the mustering that is required per mob. The value of scanning was calculated by comparing farm profit if the flock was not scanned with

SUMMARY OF RESEARCH RESULTS

- Pregnancy scanning is low-cost with a high return on expenditure.
- Scanning for multiples increased profit in *all* winter rainfall scenarios tested, by an average of \$5.75/ewe scanned ranging from \$1.20 to \$11.50.
- Average return on investment was 400%
- Profit for the examined summer rainfall region increased by an average of \$4.44/ewe scanned.
- Scanning for multiples was twice the value of scanning for only pregnancy status (ie wet/dry) for the average flock.
- Scanning for only pregnancy status was profitable in most scenarios.
- Capturing the potential profit requires implementing some management changes to utilise the information provided from scanning – see below.

ACTIONS TO TAKE FOLLOWING SCANNING

- Remove empty ewes from the breeding flock – if the flock can ‘self-replace’, then sell once-dry; otherwise, sell twice-dry. Consider the best time to sell (eg at scanning or following shearing).
- Allocate feed in favour of multiple-bearing rather than single-bearing ewes and especially empty ewes.
- Allocate better lambing paddocks to multiple-bearing ewes.
- Reduce mob size for multiple-bearing ewes.
- Keep the singles and the multiple born lambs separate when you’re selecting your replacement ewes.
- Other benefits/actions include: the ability to prepare the lambing feed budget in advance, early detection of any reproductive failure, and the ability to more rapidly re-mate empty ewes.

a flock that was scanned. The comparison was carried out for flocks that were scanned for multiples or only for pregnancy status.

The management changes that were undertaken knowing the result of the pregnancy scanning included (a) implementing optimal management of the empty ewes, (b) optimising pregnant ewe nutrition by separating single and multiple bearing ewes and feeding according to their different needs, and (c) optimal allocation of the lambing paddocks based on litter size.

Research results

SCANNING FOR MULTIPLES

Table 1 below shows that utilising the information from pregnancy scanning for multiples increased profitability for all 27 winter rainfall scenarios.

Based on long-term prices for the period 2004 to 2020, the profit averaged \$5.75 per ewe scanned, and ranged from \$1.20 up to \$10.60 per ewe. For a 2,000 head ewe flock, this is a profit of \$11,500.

This equates to a 400% return on the scanning investment.

These results alone indicate that pregnancy scanning is likely to increase profitability for the majority of farmers.

The value of scanning was higher for flocks that were lambing in autumn and slightly less for flocks lambing in spring. This difference in value associated with time of lambing is because the early lambing flocks are scanning and identifying the empty ewes prior to the main feed shortage, which increases the value of adjusting their nutritional management or from selling at scanning.

Table 1: The increase in farm profit from scanning for multiples and implementing optimum management

Winter rainfall regions	Time of Lambing		
	Autumn (\$/ewe)	Winter (\$/ewe)	Spring (\$/ewe)
<i>Long growing season</i>			
Merino	7.20	10.60	3.80
Merino-Terminal Sire	6.40	8.80	6.00
Maternal	7.50	8.80	5.40
<i>Medium growing season</i>			
Merino	7.80	2.80	5.50
Merino-Terminal Sire	9.80	5.20	3.70
Maternal	5.80	4.00	4.20
<i>Short growing season</i>			
Merino	4.60	4.60	1.20
Merino-Terminal Sire	5.20	4.70	1.90
Maternal	8.40	3.50	6.50
Average	7.00	6.10	4.25
Overall average 5.75 Return on investment: 400%			

Summer rainfall region			
Merino			3.85
Merino-Terminal Sire		7.52	7.06
Maternal	2.01	1.74	
Overall average 4.44			

Table 2: The contribution of each management component to the value of scanning and whether that component is possible based on the level of scanning undertaken

	Multiples	Pregnancy status	Value (\$/ewe)
Sell the passengers	✓	✓	1.75
Feed allocation			
to pregnant ewes	✓	✓	1.00
to multiples	✓	✗	1.00
Paddock allocation	✓	✗	1.00
Replacement selection	✓	✗	1.00

Scanning for multiples increases profitability more for Merino flocks than maternal flocks because preferential nutrition and preferential allocation of sheltered paddocks has a greater effect on the survival and production of multiple-born Merino lambs.

For the summer rainfall region, the average profit was \$4.44/ewe scanned.

SCANNING FOR ONLY PREGNANCY STATUS

In most (but not all) scenarios examined, scanning for only pregnancy status (ie wet/dry) was also profitable. However, it was almost always less profitable than scanning for multiples. Across the winter and summer rainfall regions, scanning for pregnancy status was only half as valuable as scanning for multiples.

These results suggest that scanning for only pregnancy status is a good starting point for farmers who are gaining experience with scanning, but that it should be used as a stepping stone to scanning for multiples.

(The results of the recent AWI/MLA producer survey showed that, where producers did pregnancy scan in 2021, 31% of producers scanned only for pregnancy status, while 69% scanned for multiples.)

OTHER ANALYSIS

The biggest single contributor to profitability was selling the dry/non-pregnant ewes to increase subsequent reproduction in the flock (see Table 2 above). The other management components each made a similar contribution to the total value of scanning.

The profitability of scanning is sensitive to sheep meat prices, but not very sensitive to wool and grain supplement prices, nor overall reproductive rate of the flock.

ACCURACY OF SCANNING

The research team has been working actively with pregnancy scanners to better understand the accuracy of pregnancy scanning, improve their skills base, and to encourage the trialling and adoption of innovations in scanning technology.

Accuracy of scanning can be improved by scanning at the correct time – scan for multiples (litter size) 80-90 days after the rams go in (based on the industry recommended 5-week joining period) and by correct preparation of the ewes on the day of scanning – ewes should be off feed and water overnight prior to scanning. **E**

More information

The project team is creating extension materials (eg fact sheets, and training resources for scanners) which will be available for sheep producers next year.



Pregnancy scanning can be used to identify the litter size of pregnant ewes, thereby enabling optimised nutrition and lambing management of each group, which increases marking rates and farm profit.

Include your PIC to help yourself in a crisis

With foot and mouth disease on Australia's doorstep in Indonesia, Australian woolgrowers are strongly encouraged to make sure they include their Property Identification Code (PIC) on their Wool Classer's Specification and National Wool Declaration. PICs would help authorities more quickly and accurately manage the spread of an emergency animal disease, should it occur in Australia.

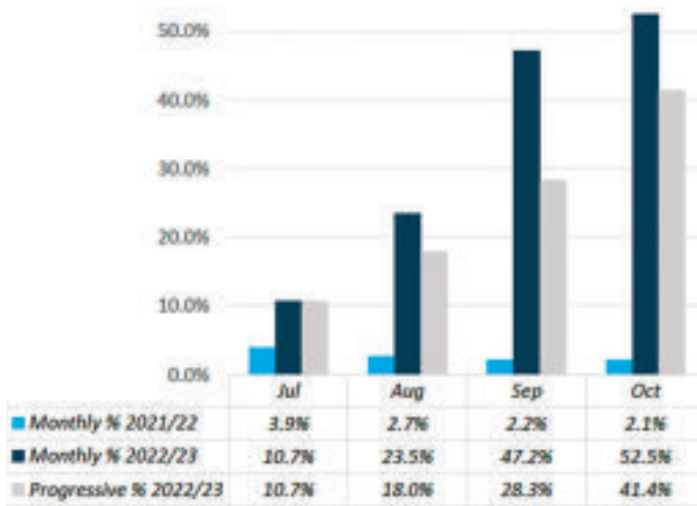


Figure 1: Proportion of tested lots with PIC data - 2021/22 v 2022/23 (Source AWTA)

A PIC is an eight-character alphanumeric code allocated by state/territory authorities to livestock producing properties. If you own sheep, you require a PIC.

The purpose of the PIC is partly for tracing and controlling disease and residue problems that may be detected after leaving the farm, but also for locating properties and owners where wool has come from when an outbreak of a disease that may threaten their enterprise is detected in an area.

The percentage of tested lots of Australian wool which have PICs declared by their sellers has increased enormously in the past few months, with AWTA reporting that 52.5% of lots in October 2022 had a PIC, compared with only 2.1% in the same month last year - see Figure 1. This increase might be a result of woolgrowers becoming more aware of the importance of biosecurity due the presence of foot and mouth disease in Australia's close neighbour, Indonesia.

FAST FACTS

- Ensure your property has a Property Identification Code (PIC). If your PIC details need updating, contact your state Department of Agriculture.
- Provide your PIC to your wool classer and property manager and include it on the Wool Classer's Specification and National Wool Declaration.
- The inclusion of a PIC is vital during a time of crisis and improves the traceability of wool.
- The use of PICs has increased enormously during the past few months, with 52.5% of lots tested by AWTA in October 2022 having a PIC, compared with only 2.1% in the same month last year.

The percentage of sale lots with a PIC varies enormously by state. Queensland led the way with 90.9% of lots tested during October having a PIC, while WA had only 21.7% of tested lots having a PIC.

PICs can also play a crucial role during response to other emergencies such as floods and fires because livestock owners can often be warned of impending danger, and can also be assisted more effectively in the aftermath of such events.

Use of traceability systems in the wool industry also provide confidence to consumers in domestic and overseas markets that the products they buy are accurately described and fit for purpose.

Over the years, many landholders might not have updated their contact details for their PIC, such as for changes in business partner, parents no longer farming and farm succession. Some addresses still show as RSD which means mail may not be delivered and the PIC could be disbanded without the landholder knowing. Many people have not added mobile phone details or email addresses to their PIC information.

You can update your contact details or apply for a PIC by contacting your state authority or Department of Agriculture. **B**

The image shows a digital form titled 'WOOL CLASSER'S SPECIFICATION'. The 'PROPERTY IDENTIFICATION CODE (PIC)' field is highlighted with a red box. Below the form, there is a red arrow pointing to a text box that explains the PIC field.

The space for the property's eight-character Property Identification Code (PIC) on the Wool Classer's Specification and National Wool Declaration



Upskill on biosecurity with new digital tool

The new augmented reality app, that can be used simply on a smartphone or tablet, is an educational tool that projects a digital flock of 3D moving sheep onto the user's real-life surroundings. It enables the user to walk amongst and inspect the digital sheep and learn how to identify emergency animal diseases such as foot and mouth disease.

Recognising symptoms of foot and mouth disease (FMD) early would make all the difference in reducing its impact if an outbreak was to happen in Australia.

Animal Health Australia has collaborated with the South Australian Department of Primary Industries and Regions (PIRSA) on the development of an easy-to-use digital tool that uses augmented reality (AR) technology to help educate producers visually on how to recognise signs of FMD or other emergency animal disease (EAD) in their sheep. The diseases included in the tool are FMD, bluetongue, scrapie, and sheep pox.

The new tool, known as the Sheep

Do you want to be confident of being able to identify signs of an emergency animal disease in your sheep? Download to your smartphone or iPad a free new app from PIRSA and Animal Health Australia that helps educate you on what to look out for.

EAD AR app, projects onto the screen of the user's smartphone or tablet a digital flock of sheep integrated with the user's real-life surroundings. This provides an opportunity for the user to look for and identify the symptoms of a sick sheep, which is made easier by hints that pop up in real time on the screen.

The 3D nature of the image enables the user to walk up to, amongst and around the digital sheep (which move) – looking in their mouths, at their feet etc – to identify the sick sheep and its symptoms.

Launched at the end of August, the tool has been developed for educational purposes and cannot be used to diagnose disease.

If you have the slightest suspicion of an EAD in your livestock, call the Emergency Animal Disease Hotline on 1800 675 888 (open 24 hours a day).

More information

The tool is easily accessible and available FREE on both the Apple App Store and Google Play. It can be downloaded by first searching for **Sheep EAD AR**.

Hear more about how the app works and its benefits, in **Episode 229** of AWI's **The Yarn** podcast at www.wool.com/podcast



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Grazing Bytes

Smart tags for monitoring grazing behaviour

A three-year project, aptly titled 'Grazing Bytes', has demonstrated that AWI smart tags can be used to predict feed intake and especially liveweight change, which could thereby enable woolgrowers to optimise grazing decisions. This would improve both pasture and animal performance.

AWI's investment in smart tags aims to enable woolgrowers to track, monitor and assess the status of their flock in real time – and make more informed decisions to increase their enterprise's profitability.

The objective of the recent Grazing Bytes project was to utilise AWI smart tags to assess grazing behaviour, feed intake and ultimately accurately predict liveweight change. The AWI project, run by Murdoch University and NextGen Agri with support from the Muresk Institute in WA, was completed earlier this year.

At the beginning of the project in 2019, farmer workshops were held across a range of Australia's sheep producing regions (WA, SA, Vic, NSW) to gain insights from a broad range of producers on the kinds of use cases they would envisage and the format they would like the information to be in. However, all research work was undertaken in WA due to COVID restrictions.

The smart tag data generated during the project was matched with known feed intake information and liveweight change information generated in a range of scenarios. The data sets were then used to train and test machine learning algorithms to predict a range of grazing and liveweight change attributes. The results were very promising.

Sheep fitted with faecal harnesses and bags to collect total faecal excretion during the project's experiments.



"The Grazing Bytes project clearly and successfully demonstrated that AWI smart tags could be used to predict both feed intake and especially liveweight change," said AWI Program Manager Agri-Technology, Carolina Diaz.

The most promising result was the ability to accurately predict liveweight change

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over seven days from smart tag behaviours (grazing, walking and ruminating) over the same period. Whilst the data sets were small, almost 70% of the actual changes in liveweight over seven days were explained by the predicted changes in liveweight.

Furthermore, the predictions of liveweight change appeared to be independent of the plot and feed on offer (FOO) and therefore, if validated using larger data sets, the approach may be transferable across different grazing environments and scenarios.

Carolina says the implementation of this technology in due course would likely have a positive impact on labour efficiency, farm productivity and business profitability.

"The prediction of grazing behaviour, feed intake and liveweight change from the AWI smart tags could ultimately be used to develop paddock movements that optimise the utilisation of feed available across the farm at different times of the year. It could also enable more efficient and timely use of supplementary feed," she said.

"The data, even on a weekly basis, would make it much easier to allocate the appropriate amount of feed to priority mobs and increase the accuracy of achieving condition score targets to improve reproduction and lamb marking rates.

"Together with information on location, the data could also provide spatial information on forage productivity that could be used to improve paddock management and design." B

Other AWI smart tag research

In addition, to the Grazing Bytes project (left), AWI has invested in projects that investigate sheep behaviour in relation to predation/welfare and reproduction.

Remote detection of predation and disease

As reported in the June edition of *Beyond the Bale*, a three-year project completed earlier this year highlighted the potential of AWI smart tags to indicate the presence of wild dogs around sheep, and detect the early incidence of health issues in sheep (eg Barber's pole worm infections) – both of which can have significant production, profitability and animal welfare implications. The ultimate potential and benefit will be when real-time alerts are able to be generated to enable woolgrowers to intervene. The three-year project was undertaken by CQUniversity with funding from AWI and an Advance Queensland Industry Research Fellowship.

Improving reproductive management

An ongoing project with the University of Sydney aims to understand male and female reproductive behaviour and how it can be detected using AWI smart tags. Monitoring such behaviour has historically been time consuming and labour intensive, however this project has been exploring how AWI smart tags could be implemented so woolgrowers could increase reproductive efficiency in their flocks. Experiments have been conducted to measure/identify the physical event of rams mounting ewes, with tags on both the ewes and rams. Tags capable of monitoring the mounting have been developed, with the algorithm having a sensitivity of 91% and precision of 86%. B

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Cluster fencing helping to rebuild the flock

After their business was decimated by wild dogs, the Chandler family at Barcaldine in Queensland constructed exclusion fencing on their property, which has enabled them to bring back sheep into their business and have a positive view for the future.

Queensland has a long and proud history of sheep and wool production. However, in the 15 years from 2001 to 2016 the state's sheep numbers fell by about 80% from 8.7 million to 1.8 million. The damage inflicted by wild dogs caused landholders both financial and emotional stress, resulting in many landholders leaving the sheep and wool industry and restricting those wanting to enter it.

In the same 15-year period, Queensland

agricultural jobs fell by 28%. The impacts of the reduction in sheep numbers and farm employment opportunities reached well beyond the farm gate; they were felt in the social and economic fabric of rural communities across the region.

However, in recent years landholders have begun a return to running sheep in Queensland, aided by the construction of cluster fencing that allows small stock like sheep to be protected from wild dog attacks.

Through the Queensland Feral Pest Initiative (QFPI), the Queensland Government committed \$14.8 million to support the construction of cluster fencing in areas with high wild dog impacts. This was complemented by \$9.3 million from the Federal Government and landholder contributions of approximately \$51.7 million.

With the latest round of construction under the QFPI nearing completion, 456 properties covering 5,025,444 ha will be protected by a total of 8,142km of fencing.

Chandler Pastoral Holdings

One of the farming businesses that has benefitted from cluster fencing is Chandler Pastoral Holdings, a sheep and cattle business run by the Chandler family near Barcaldine in the Central West of Queensland.

Ben and Jayde Chandler live with their four young children at 'Gregory Park' on the western side of the Chandler family's aggregation of 40,000 hectares that includes neighbouring properties where Ben's parents, John and Joss, and Ben's brother Tom and his wife Holly live.

"This open Downs country is traditionally very suited to sheep and wool production, actually more so than cattle, but it got to a point a decade or so ago where wild dogs were decimating the lambing population and made sheep production unsustainable," Ben said.

"To give you an idea, we shored 20,000 sheep in the early 2000s and then wild dogs started getting on top of them, year-in year-out from then on, killing 2,000 ewes a year with lambings down to 2 per cent. It wasn't viable for us to continue to produce sheep under those losses and mortality rates."

The family sold all their remaining 5,000 sheep in 2010, transitioning into cattle whilst maintaining the infrastructure of three shearing sheds in the hope of going back into sheep one day.

Building the cluster fencing

"Then when the cluster fencing projects became more and more available, and the evidence was starting to grow that they

Ben Chandler during construction of fencing.



Merino sheep back on the Chandler family's property after the construction of exclusion fencing.



Exclusion fencing booklets



Information and photos of successful exclusion fences are included in AWI's free 36-page *Wild*

dog exclusion fencing: a practical guide for woolgrowers, which was published in 2017.

To complement the AWI guide, AWI also makes available the 14-page Kondinin Group Research Report *Exclusion Fencing, Fighting Ferals*, which was published in 2016.



More information
www.wool.com/exclusionfencing

were a viable investment, we certainly got on board with the opportunity and as a result we've stepped back into sheep in the past few years. It is certainly good to be back in the industry," Ben said.

The QFPI subsidies were the catalyst for a lot of people to invest privately in exclusion fencing.

"One of the major drivers for the fencing for us was the fantastic infrastructure of three shearing sheds not getting used across three properties, but the QFPI subsidies through the local Remote Area Planning and Development Board (RAPAD) made it more appealing to be proactive about fencing," Ben said.

"The fences have given us the opportunity to take advantage of this prime sheep country again and give us control of our business."

Ben Chandler

The family initially completed 60km of exclusion fencing in 2015 as part of a 106km Clover Hills Cluster Group with three neighbouring properties.

"That fencing got the outside of the wheel established and something to build off going forward. Since then, we have proactively added the spokes to the wheel, creating internal manageable cells we can control more readily. We now have 140km of fencing.

"In addition, all the neighbouring properties have continued to fence their own places outside these clusters, increasing the security and effectiveness, and further improving manageability of vertebrate pests and related pressures in the area.

"It's exciting when you look at a map

of the region and you see clusters going up everywhere. It has really made sheep and wool production a realistic possibility again, which is terrific."

"With the fences up, the lambing numbers are back to where they should be."

Ben Chandler

Getting back into sheep

With great excitement, the family reintroduced the first sheep – 1,600 Merino ewes – back into the enterprise in 2018 to test the new model, working with two professional wild dog trappers operating across the aggregation, along with strategic ground baiting. The family now runs 5,500 Merino sheep and 2,000 Santa Gertrudis female cattle.

The fencing has not only reduced losses through predation but has also given the Chandlers the ability to control and manage joinings and animal husbandry a lot more easily.

"With the fences up, the lambing numbers are back to where they should be, around 80-90 per cent across the region. We have just marked over 100 per cent of lambs for our second year in a row, which is fantastic," Ben said.

"The fences have given us the opportunity to take advantage of this prime sheep country again and give us control of our business. Running a dual enterprise provides us with diversity in our business and an ability to spread cash flow out over the whole year with different income streams."

Ben cautions that while fencing is one of the most effective tools for the management

of wild dogs, it must still be complemented by other traditional methods of control.

"It's naive for anyone to think that fencing is the be-all-and-end-all; you've still got to continue with your control programs of baiting, trapping and shooting," he said.

Landholders are also reporting environmental improvements through being able to better control grazing and maintain ground cover.

"Wild dogs were previously causing overgrazing of the paddocks in some areas which was resulting in land degradation. The advantage of being able to 'lock-up' paddocks is then being able to manage the conservative and controlled grazing pressure from livestock," Ben confirms.

Benefits for communities and families

As well as the positive financial impact on individual producers, the reintroduction of sheep has a positive economic and social influence on rural towns and local communities.

"The possibilities for these communities are now endless. Increased sheep numbers equals increased employment opportunities – from jackaroos to shearers, from cooks to livestock agents – and therefore increased expenditure in the towns," Ben said.

"We're so lucky to be in an area where landholders have got on board – which benefits families and the children too. If the kids are growing up on a profitable and diverse property in a thriving community then they are more likely want to stay on here as adults – and we absolutely want them to be out here and involved."

Students take up the Merino Wether Challenge

Students from schools across SA, NSW and WA have once again this year gained practical hands-on sheep management experience by looking after teams of Merino wethers as part of state competitions.

Merino wether competitions for school students are run each year in SA, NSW and WA with the aim to educate them about the commercial production of Merino sheep. The initiative provides the students with a memorable 'hands on' experience covering a broad range of sheep and wool production skills.

Initiated twelve years ago in SA by the SA Stud Merino Sheepbreeders Association (Merino SA), similar competitions are now held in NSW by the NSW Stud Merino Breeders' Association and in WA by the Stud Merino Breeders Association of Western

Australia. The competitions are supported by AWI, as well as individual studs, schools, teachers and students.

Each school team looks after several wethers (from studs in their state) for six months, with the students forming a close relationship with their wethers. This provides a unique and practical experience for the students, much different from classroom learning. Each school team then shows their wethers during a competition later in the year and are judged according to their meat and wool quality.

By attending training days and the judging

events, and by looking after their wethers, the students gain:

- practical, hands-on skills in sheep management
- a better understanding of sheep and wool production as a business
- contact with many aspects of the Merino sheep industry
- a chance to network with industry participants and other students
- an enjoyable experience with Merino sheep and the industry
- a positive perspective on a career with sheep and wool.

B



Students watching the shearing of the wethers at this year's competition in Adelaide.

SOUTH AUSTRALIA

With Merino SA celebrating its centenary this year, it was fitting that such a large turnout of the next generation of woolgrowers – about 400 students from nearly 40 schools – participated in the 12th annual **School Merino Wethers Competition** held on 7 September. 74 teams of three wethers (222 wethers) were brought into the Stud Sheep Pavilion at the Adelaide Showgrounds. It was a hugely successful event with the students greatly enjoying the experience. As well as providing the students with a hands-on experience of commercial sheep and wool production, the competition enabled the students to have contact with many aspects of the Merino sheep industry from stud and commercial breeders, stock agents, wool buyers, through to processors. Urrbrae Agricultural High School was the overall meat and fleece winner.

NSW

In NSW, 62 schools from across the state participated in the **School Merino Wether Challenge**, each running two teams of three Merino wethers for nearly six months. There were more than 400 students from right across NSW involved in the program this year. At the end of the six months, in August, students converged on the Dubbo Showground where they presented their wethers for judging on commercial value. In a close competition, Gunnedah High School won the overall prize. At the event, students also had the opportunity to participate in activities to learn more about sheep handling, scanning and nutrition, and wool harvesting, while also hearing from a careers panel about the wide range of opportunities in the industry. A young judges' competition also enabled students to put their skills to the test.

Hear from co-ordinator Ben Watts and teacher Brooke Cowan from Gunnedah High School in **Episode 225** of AWI's The Yarn podcast www.wool.com/podcast

Judging at this year's event in Dubbo.



Western Australian College of Agriculture Denmark was the overall winner.

WESTERN AUSTRALIA

Having been run since 2014 in WA, this year teams from four schools and colleges took part in the **AWI Future Sheep Breeders Challenge**, held in September at the Perth Royal Show. Similar to the competition in NSW, this annual competition is a bit different to that in SA in that only one bloodline is used, to educate students on the impact that the environment can have on sheep genetics and therefore the importance of making ram purchases from a breeder with a similar climate to their own. This year, teams looked after six wethers (from Barloo stud in Gnowangerup) but showed four at judging. The students were very keen and competition was outstanding.



Research into use of supplements

Livestock nutritionist and producer Nicole Logg from NSW has been awarded a 2023 Nuffield Scholarship supported by AWI to investigate the effective use of supplements to improve sheep productivity.

Nicole Logg from West Wyalong, NSW.

During her Nuffield Scholarship, Nicole will research how sheep producers can strategically use supplements to not only provide energy and protein, but also enable their sheep to utilise the nutrients in their feed more effectively, thereby improving productivity.

"I hope my research will ultimately

help to create a simple way for farmers to better understand what they have naturally in their pastures and available feed resources, and what they may be deficient in during different seasonal periods," said Nicole.

With access to better data and information, producers could make more informed decisions – extracting more nutrients

from the feed provided whilst reducing stressors and supporting animal health.

Her scholarship will see her travel to other nations with significant sheep industries – such as New Zealand, the UK, Argentina, Uruguay and Spain – to investigate how supplements are being used abroad.

As well as running her livestock consulting business, Nicole with her husband runs a sheep and cattle operation at West Wyalong in the northern Riverina of NSW. She is also an accredited trainer for the AWI co-owned and supported Lifetime Ewe Management course and AWI's Winning With Weaners workshops.

AWI CEO John Roberts says supporting the Nuffield Scholarship program each year is one of the ways that AWI is increasing farming knowledge and management skills in the Australian wool industry.

"Through the adoption of best practice nutrition, which is the subject of Nicole's research, we can improve on-farm productivity which will help ensure the long-term competitiveness of the Australian wool industry," he said.

More information
www.wool.com/nuffield

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TE PARI

The AWI Graduate Training Program began in 2018 and since then has provided six keen graduates with a thorough understanding of the wool supply chain from fibre to fashion. Two outstanding new graduates have recently been selected to start the program in 2023.

The 18-month AWI Graduate Training Program is based primarily at the AWI office in Sydney, where the graduates gain exposure to many areas of the AWI business from on-farm and off-farm R&D through to marketing. The graduates are also given the opportunity to gain a global exposure to the wool supply chain through international rotations.

The program is aimed at graduates from a broad cross section of disciplines who have a background in or connection with the Australian wool industry. It provides them with professional training and development opportunities to further enhance their career within the industry. Four of the graduates who have already completed the program are still employed by AWI, in the following roles:

- Miles Barritt – Project Manager, WoolQ & Traceability
- Emma Murphy – Trade Marketing Officer
- George Lehmann – Project Coordinator, Extension & Capacity Building
- Tom Hersee – Project Coordinator, Industry Development

Update on the graduates in our 2022 intake

Tom Hersee stepped out of the program and into a role within our Grower Services team, an area he was most passionate about, and an opportunity he didn't want to miss out on.

Chris Watt is halfway through his 18 months within the program, having completed rotations within our global Marketing, Processing Innovation & Education Extension, and Consultation teams.

"I've now been in the AWI Graduate Training Program for 9 months, and so far the highlight for me has been the variety of experiences and opportunities the program offers," Chris said. "From attending flystrike workshops and shearing events in regional Australia to being involved in global marketing campaigns and trade shows, I've done so much and learnt even more. I'm excited to start my next rotation with the Research team and seeing operations from an on-farm perspective."

B

AWI Graduate Training Program welcomes new intake

Welcoming our new graduates

After a competitive recruitment process for the 2023 program, AWI has selected two new excellent graduates to start their journey with wool at AWI in March next year. Similar to the 2022 intake, the calibre of candidates this year was outstanding and it was a difficult selection process for our People & Culture team and CEO.



Harrison Dunning

From the North Shore in Sydney, Harrison developed his passion for agriculture in high school with the help of his Agriculture Studies teacher. Harrison was in the top 10 for HSC Agriculture in the state and went on to study a Bachelor of Science and Advanced Studies, majoring in Food and Agribusiness, at the University of Sydney. Harrison was a recipient of an AgriFutures Horizon Scholarship.

Harrison is excited to gain a more holistic understanding of the supply chain, particularly in the areas of wool processing and on-farm research.

Kate Rice

Kate grew up on a mixed farming property just outside of Parkes, NSW. In 2019 she made the move to Canberra to complete her Bachelor of Design and Visual Arts, majoring in Textiles, at the Australian National University.

Coming from a wool-growing property, Kate has a natural connection to the fibre. With her background in the industry and studies in textiles, Kate is looking forward to learning more about the supply chain from the farm-gate to the final product.

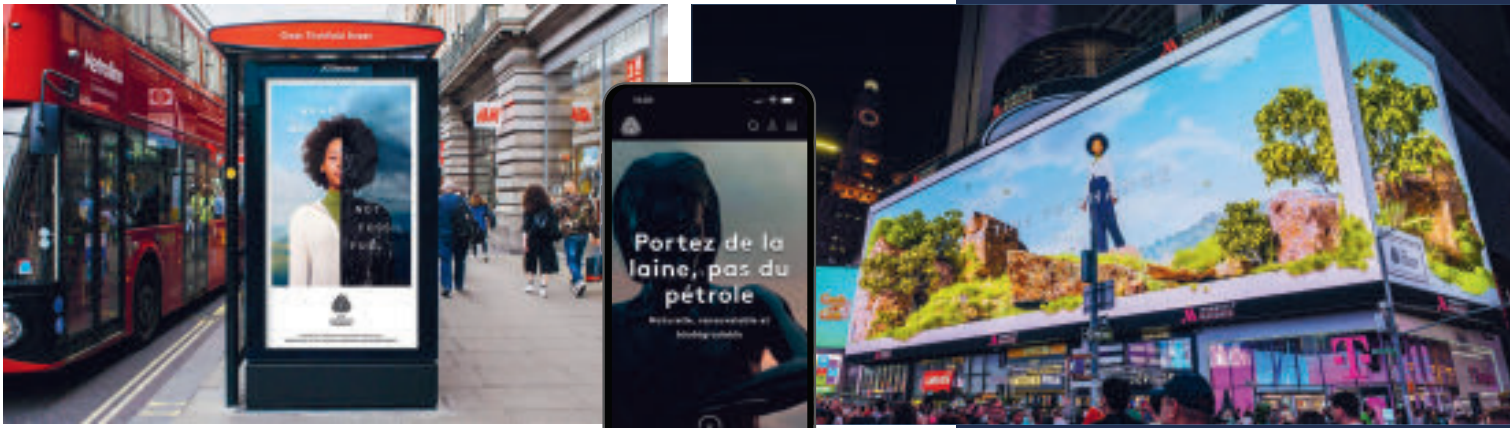


AWI WORKING TO INCREASE THE DEMAND FOR AUSTRALIAN WOOL

AWI's 'Wear Wool, Not Fossil Fuel' marketing campaign

AWI's powerful 'Wear Wool, Not Fossil Fuel' eco marketing campaign highlights to consumers that synthetic fibres are made from oil, whereas wool is a 100% natural, renewable and biodegradable fibre. The global campaign urges consumers to consider the fibre composition of a clothing product – and choose wool – when they are thinking of making a purchase.

Since its launch in September, the campaign has had an amazing reception and impact – see the following page for details.



'Wear Wool, Not Fossil Fuel'

Eco campaign update

AWI's marketing arm The Woolmark Company in September launched a powerful marketing campaign highlighting to consumers that synthetic fibres are made from oil, whereas wool is a 100% natural, renewable and biodegradable fibre. The global campaign urges consumers to consider the fibre composition of a clothing product – and choose wool – when they are thinking of making a purchase.

The Woolmark Company's environmentally focused global campaign 'Wear Wool, Not Fossil Fuel' aims to educate the public about the harmful impact of synthetic fibres on the environment, and that choosing a natural fibre such as wool

can help reduce the fashion industry's environmental footprint on the planet.

Featuring a series of powerful visual messages that highlight the link between fabrics made from synthetic fibres and the crude oil used in its manufacture, the campaign centres around a 60-second hero film and includes outdoor advertising which has so far been launched in the UK, US and France.

The impactful minute-long film shows people struggling to escape an oil-filled swimming pool, which is a dramatic visual based on the insight that every 25 minutes an Olympic pool's worth of crude oil is used to produce synthetic clothing (which amounts to almost 350 million barrels a year).

Next in the video, the people – smothered and dripping in oil – climb out of the pool and realise "it's time to change". They strip off their 'oil clothes' revealing them each now dressed in beautiful pure wool garments. The people then wander with freedom through forests, streams and meadows – a natural paradise – which emphasises the natural attributes of the wool they are now wearing. On-screen descriptions of wool being '100% natural', '100% biodegradable' and '100% renewable' reinforce the campaign message.

The campaign, which is being promoted via digital and social media, was accompanied in September by visually striking 3D digital advertising in iconic sites in London's Piccadilly Circus and New York's Times Square, along with other global outdoor advertising (such as on bus shelters and newsstands), plus a partnership with like-minded companies such as popular computer file transfer company WeTransfer. **B**

More information
www.woolmark.com/wear-wool

The campaign was rolled out via outdoor advertising as well as digital and social media. Pictured is advertising on a bus shelter on Oxford Street in central London, a digital promotion in French, and giant 3D digital advertising in New York's Times Square.

Why wool has less impact than synthetics

- 1. RENEWABLE** – Every year, sheep produce a new fleece, making wool a completely renewable fibre source. In contrast, synthetic fibres are derived from non-renewable petrochemicals and fossil fuels, which when extracted de-sequester carbon stored millions of years ago.
- 2. KEPT IN USE LONGER** – How often clothes are worn is the most influential factor in determining environmental impacts from clothing. Wool garments are on average kept in use for longer periods of time than garments made from other fibre types.
- 3. LESS WASHING** – Research shows that consumers wash wool clothing less frequently than other fibre types, saving water, energy and detergent associated with laundering.
- 4. REUSABLE AND RECYCLABLE** – Wool's attributes are so highly valued that, even after a garment has finished its long service life with one person, the fibre is still suitable to be kept in use by another. Wool is the most reused and recycled fibre on the planet of the major apparel fibres.
- 5. BIODEGRADABLE** – Wool is made of a 100% natural biodegradable protein. In contrast, synthetic fibres do not biodegrade but instead accumulate in landfill and release microplastics in our oceans or on our land.

INTERIM RESULTS

(so far, by the start of November)

68.6 million
VIDEO VIEWS

123.4 million
IMPRESSIONS

651
EARNED MEDIA CLIPPINGS

193 million
EARNED MEDIA REACH

WEAR
WOOL

NOT
FOSSIL
FUEL

SYNTHETIC CLOTHING IS MADE FROM FOSSIL FUEL.
MERINO WOOL IS 100% NATURAL, RENEWABLE AND BIOGRADABLE.



Campaign for Wool promotion in the UK

The Campaign for Wool's Wool Weeks in the UK returned this year to promote the natural and sustainable benefits of the fibre to consumers, and like last year continued for all of October.

The Campaign for Wool, initiated by the then HRH The Prince of Wales in 2010, continues to raise awareness amongst consumers about the unique, natural, renewable and biodegradable benefits offered by the fibre. HM King Charles III continues as the Patron of the Campaign.

Since its inception, the Campaign has been instrumental in educating consumers about the versatility of wool, and reconnecting them with its myriad uses – from luxurious fine Merino wool apparel through to beautiful hardwearing interior products for the home.

Each year, the Campaign for Wool uses Wool Weeks to amplify wool's eco and environmental messages, collections, product launches, events and activities from brands, retailers and crafters. **B**

More information
www.campaignforwool.com

'Why Wool Matters' wins at London Fashion Film Festival



The Campaign for Wool's 20-minute documentary 'Why Wool Matters' won the Best Fashion Documentary at this year's London Fashion Film Festival. Supported by AWI, the documentary explains why wool is the most responsible fibre to choose for the well-being of the planet.



SNIPPETS FROM WOOL WEEKS UK

WOOL WEEKS/MONTH LAUNCH ON SAVILE ROW

Wool products – from knitwear to bedding, from crafting yarn to carpets – sourced from Campaign for Wool supporters were on show at No 5 Savile Row in London. The tailors along the Row created a 'path' to the event space with their creatively styled windows.



MARKS & SPENCER'S ARCHIVE REIMAGINED

Marks & Spencer showcased an M&S Originals wool edit, featuring key wool separates from its Autumn/Winter collection. The iconic British high street brand has reworked some of its classic styles with new fabrications from Abraham Moon & Sons and Alfred Brown.

BRORA'S CAMPAIGN FOR WOOL JUMPER

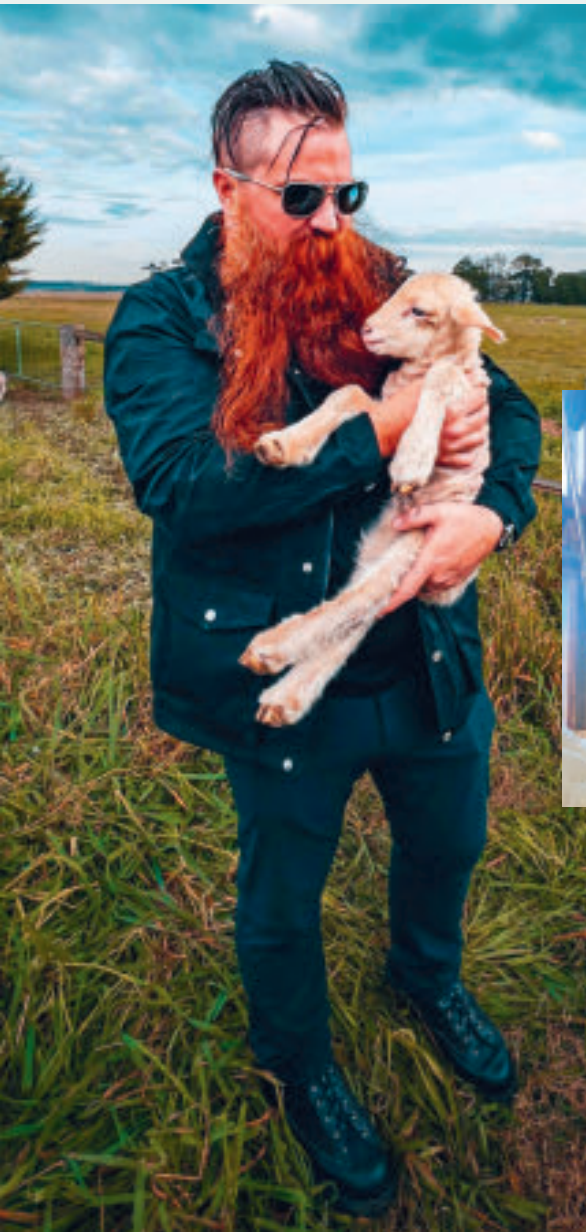
UK slow fashion brand Brora held a jumper design competition for students at the University of Dundee. The winning student Grace Atkinson designed this 100% pure new wool jumper inspired by the Scottish Highlands, which is available to buy from Brora.



WALLACE SEWELL WOOL FILLED CUSHION INSERTS

UK textile design company Wallace Sewell recently made the switch to fill its Merino lambswool cushions with wool rather than feathers. The brand has had a great response from customers who recognise that wool is more sustainable and is naturally hypoallergenic.

Merino – the perfect travel companion



Travelling is easy when you pack and wear Merino wool. To get this message out to more people, AWI recently arranged a visit to some wool-growing properties for some American travel gear experts so they could discover how the fibre is grown, harvested and sold.



Creative Director at Carryology, **Taylor Welden**, visiting a wool-growing property in Victoria and having a good go at shearing.

items that you can wear again and again and not have to wash or put aside after one wear,” Taylor said.

“The discovery that we’ve all made at Carryology is that Merino wool is like magic. I’m a big fan of T-shirts, but on this current four-week trip away from the US I’ve needed to bring just four Merino wool T-shirts for the entire time. In addition to the fact that it doesn’t stink when you wear it for a few days, Merino is soft against the skin and it keeps you warm when it’s cold, and cool when it’s warm.”

Taylor reckons the one thing that holds people back from purchasing a Merino product is that they don’t realise how good the fabric *feels*.

“If you look at a photo of a Merino T-shirt in a brochure or on the internet, it looks pretty much like any other T-shirt, and it is more expensive than a regular cotton T-shirt. But, if people *touch* a Merino T-shirt, wear it and experience it firsthand, then it instantly changes their opinions about wool.”

Visiting the on-farm source of Merino wool

Some of Carryology’s favourite Merino apparel is made by Unbound Merino, a Canadian brand which makes simple, high performance Merino wool clothing

specifically for travel and everyday life. The brand is a strong supporter of the “pack less, experience more” philosophy.

Unbound Merino sources the Merino wool for its apparel from Australia, and Taylor reached out to the brand to partner on a recent trip to Australia. AWI’s National Engagement Manager, Marius Cuming, accompanied the group on a visit to a wool auction at Brooklyn in Melbourne, and to the properties of woolgrowers George McKenzie at Rokewood and Graeme Harvey at Murgheboluc.

“Because we’re huge fans of Merino apparel, we wanted to visit the home of Merino and learn firsthand more about the whole wool-growing process from start to finish,” Taylor said.

“The tour was really cool; we got to see how the sheep and rams are selected for their genetic traits and how one type of wool is better than another. We saw the sheep getting shorn and their wool getting classed. It’s wonderful how it is such a cutting-edge fibre while at the same time being 100% natural. The tour was fascinating and way more than I had expected to see – and it was wonderful to see a real passion from everyone in the industry.”

More information

www.carryology.com

www.unboundmerino.com

Hear more in Episode 228 of AWI’s The Yarn podcast at www.wool.com/podcast



Reasons to travel with Merino wool

- Odour resistant
- Thermo-regulating
- Breathable
- Trans-seasonal
- Crease and stain resistant



Taylor wearing one of his Unbound Merino T-shirts at Canyonlands National Park in Utah.

Launched in 2009 in Australia, Carryology started out as a humble blog exploring better ways to carry things (bags, luggage and the like), but has since grown into a global resource, sharing countless insights and learnings. Exploring how best to carry things has led Carryology to also look at what kind of apparel is best to pack and use for traveling – and Merino wool is rated highly.

Creative Director at Carryology, Taylor Welden from Austin in Texas, is a huge advocate for Merino wool apparel. He says a major advantage of travelling with Merino wool clothing is that you can pack less and pack light because Merino wool needs less laundering than other apparel.

“When you’re packing for a trip, the things that are going to take up the most amount of space in your bags are your clothes. To pack light, you want to carry



Screenshot from the video promoting the new Sease collection. To emphasise the concept of highly performing product, the video was shot at the Pininfarina Wind Tunnel in Turin, which is used to test the aerodynamics of performance vehicles.

Sease showcases the innovative future of Merino wool

Premium Italian performance wear brand Sease has teamed up with The Woolmark Company to transform traditional formal fabrics into an elegant urban and skiing collection.

Founded in 2018 by brothers Franco and Giacomo Loro Piana, Sease is a premium lifestyle brand that blurs the line between contemporary urban wear and high performance activewear. The name Sease is a melding of the words 'sea' and 'ease', which reflects the brothers' passion for sailing and their desire to escape daily pressures by immersing themselves in nature.

The menswear brand's 19-piece latest collection, developed in collaboration with The Woolmark Company, builds on

their family's famed passion for Merino wool. Launched in October, the collection breathes new life into classic formal fabrics, engineering them into urban and ski apparel that comprises Woolmark Blend-certified jackets, sweatshirts, pants and T-shirt.

Sease's mission is to create garments in an ethical and sustainable way by collaborating with partners committed to lowering their environmental footprint across the supply chain without compromising quality, style and performance. Merino wool was therefore the natural choice for Sease.

"Merino wool is the perfect fibre for Sease's contemporary wardrobe, where it finds an unprecedented balance between design, quality and functionality," explained Sease CEO and Founder, Franco Loro Piana.

"My family has always worked to research Merino wool, the finest and most



The **Balma Jacket** is made with performance and comfort in mind using Solaro Sunrise fabric that comprises laminated wool and bio-based nylon.



The **Drone Hood** sweatshirt is made from a Merino wool and cashmere double jersey pinstripe fabric synonymous with Italian tailoring and offers incredible softness and warmth.

Sease wins sustainability award

An international jury, chaired by Dame Ellen MacArthur, in September selected Sease as winner of The Woolmark Company Award for Innovation at the National Chamber of Italian Fashion's (CNMI) 2022 Sustainable Fashion Awards, an event in Milan that recognises commitment to offering sustainable solutions to the fashion industry.

The Award was presented to Sease for its role as promoter and innovator in the use of Australian Merino wool as a 100% natural, renewable and biodegradable premium fibre as well as a fundamental ingredient for circular and traceable products.

"Wool is one of the most sustainable materials in the world and produced in a conscious way; it is one of the best choices for the planet. Australian Merino wool has long been the best choice for Sease, a young and Made in Italy brand we are proud of and happy to support," said CNMI chairman Carlo Capasa.

valuable fibre in the world. I am very happy to continue the innovation of this fibre with my project."

AWI Regional Manager, Central & Eastern Europe, Francesco Magri says The Woolmark Company is proud to support the Sease project and their founders who have always been committed to the search for innovation with Merino wool.

"Sease pushes the boundaries of Merino wool, challenging perceptions and creating innovative products that drive new opportunities for the fibre. The brand opens the door to a new approach to sportswear because the brand understands the quality of traditional wool fabrics, the sustainable soul and the multiple performance benefits of Merino wool," he said.

The collection was launched on 20 October at an event at Sease's boutique in Via Montenapoleone in Milan attended by 200 press, influencers and VIP clients. A social, digital and influencer marketing campaign is currently under way promoting the collection, while emphasising the natural performance benefits of Merino wool and the fibre's on-farm source. **B**

More information

www.sease.it/en/the-woolmark-company
www.woolmark.com/sease

Wool takes to the seas again at the America's Cup

AWI's marketing arm The Woolmark Company will continue as the official technical partner of the Luna Rossa Prada Pirelli team ahead of the 37th America's Cup. This follows on from the highly successful showcase of Australian wool during the previous America's Cup.

Through The Woolmark Company's support of the Luna Rossa Prada Pirelli team at the 36th America's Cup in 2021, Australian Merino wool was showcased to millions of potential customers, and significant interest was generated from global apparel brands that have since worked with AWI on product development initiatives (for example, see the article on the opposite page about Sease).

The Woolmark Company supported the team in the research and development of a Merino wool-rich uniform for the entire team and crew during training and sailing. Select garments were also commercialised through selected Prada flagship stores and e-commerce platforms.

The partnership has now been extended for the 37th America's Cup, to be held in 2024 in Spain, with the team and crew wearing new Merino wool technical garments across all training and sailing activities.

AWI CEO John Roberts says this ongoing collaboration at the America's Cup, the oldest trophy in the history of sport, cements the strong link between the world of sport and the world's original performance fibre, Merino wool.

"This partnership continues to highlight the coming together of two like-minded brands to create a technical uniform for the Luna Rossa Prada Pirelli crew across the regattas, events and activities for the 37th America's Cup," he said.

"A 100% natural, renewable, biodegradable and recyclable fibre, Merino wool offers a performance-based natural solution with reduced environmental impact and helps the Luna Rossa Prada Pirelli Team achieve its sustainability goals."

Team Director and Skipper of the Luna Rossa Prada Pirelli Team, Max Sirena, says he welcomes the ongoing partnership and the use of Merino wool in the new team uniform.

"For a professional sailor, clothing plays a fundamental role that goes far beyond the aesthetic factor. A breathable, waterproof and isothermal garment that keeps you cool and dry makes you feel comfortable, frees you to move and allows you to focus on what you are doing," he said.

"Furthermore, our uniforms have a



The Luna Rossa Prada Pirelli Prototype was launched by Prada's co-CEO and head designer Miuccia Prada in October, following which the crew began training on the water while wearing Merino wool apparel. Note the Woolmark logo on the sail.

perfect fit, not to mention that Merino wool is sustainable and biodegradable, which is important for a team like Luna Rossa Prada Pirelli that is very concerned with safeguarding the planet."

Team member Jimmy Spithill from Australia added: "I like the customisation process of the garments and the fact that every item is produced according to specific references provided by us, based on our previous experience both at sea and in other sports." **B**

What benefits does the partnership deliver to woolgrowers?

1. Increased consumer awareness of Australian wool's technical and environmental benefits amongst a global audience.
2. Product sales of Woolmark-branded items including race jackets, polo shirts and T-shirts.
3. New business opportunities for global performance brands to work with The Woolmark Company's teams on product development with Australian Merino wool.



The New Naturals collection from Houdini contains Merino wool garments for all three layers – base-layer, mid-layer and outer-layer – keeping outdoor enthusiasts comfortable during extreme conditions.

Houdini's all-natural layering system

Merino wool is perfect for all three layers of outdoor apparel: base-layer, mid-layer and outer-layer – as demonstrated in The New Naturals collection recently launched by Swedish brand Houdini following a collaboration with AWI.

Merino wool apparel has become popular for outdoor sports for many reasons, not least because of its ability to protect the wearer from excessive heat and cold, something that not only helps

keep the wearer comfortable but can even be lifesaving.

Outdoor sports enthusiasts often experience temperature extremes. The body generates high levels of heat and perspiration when for example climbing a mountain, but once they reach the summit, body temperatures drop which can be dangerous when the body is wet from perspiration. The trick is wearing the right clothes that enable the wearer to control moisture as well as insulation.

The solution is Merino wool, which Houdini has used in its new collection, recently launched for the northern hemisphere winter season.

The New Naturals collection

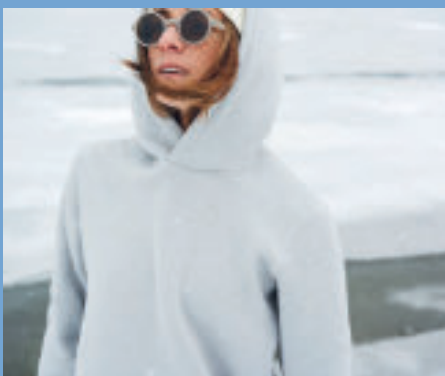
Houdini's The New Naturals collection consists of:

1. 'Desoli' base-layer garments (tops, bottoms, hats and neck warmer) made from 100% 17.5-micron wool from Australia
2. 'Alto' mid-layer garments (tops, bottoms, hats and mittens) made from 19.3-micron Australian Merino wool blended with TENCEL™ Lyocell fibres (derived from wood pulp); and
3. 'Lana' outer-layer garments comprising a jacket and pants made from 100% 16-micron Australian Merino wool.

'Desoli' base-layer – made from 100% 17.5-micron wool from Australia.



'Alto' mid-layer – made from 19.3-micron Australian Merino wool blended with TENCEL™ Lyocell fibres.



'Lana' outer-layer – made from 100% 16-micron Australian Merino wool.



The innovative fabric of the Lana jacket and pants, made using Optim™ technology, is comprised of densely knitted Merino wool that provides wind and water-resistance, without any chemical treatments having been applied. The fabric is one of many innovative and high-value woven Merino wool fabrics that have been developed by the Wool Development Centre, which was set up in 2013 by AWI with one of China's leading woollen textile enterprises, The Nanshan Group.

The three-tier layering system of The New Naturals collection gives the wearer the opportunity to adjust their clothing to the environment as well as to the activity level, keeping them drier and more comfortable – and without the use of any synthetic fibres, which is especially important for Houdini.

Sustainable and circular design

Ever since it began in 1993, Houdini has been an innovator of sustainable design and pioneer of circular business models. Ultimately Houdini wants to enable and inspire people to reconnect to nature.

"The idea is to evolve natural fibres, like Merino wool or TENCEL™ Lyocell, with the help of cutting-edge technology – natural resources, borrowed from nature and transformed into highly functional fabrics using the latest technology," said Houdini's Head of Design & Product, Jesper Danielsson. Being biodegradable, the fabrics used in this collection can return to nature, providing a basis for new resources.

The New Naturals collection was developed by Houdini in close cooperation with AWI and also involved collaboration

with Lenzing's TENCEL™ brand and leading spinner Südwole Group.

"AWI and Houdini have long shared similar values regarding the creation of quality, technical products with minimal impact. As a 100% natural, renewable and biodegradable fibre, Merino wool's inherent circular attributes align with Houdini's ethos and provides the ultimate ingredient for their The New Naturals collection," said AWI CEO John Roberts.

"Cross-industry collaboration is fundamental to not only share the journey towards more sustainable, circular practices and products, but also to achieve industry transformation. This is what makes Houdini's latest offering so exciting." B

More information

www.houdinisportswear.com
www.woolmark.com/houdini

ALBUS LUMEN's summer inspired lightweight Merino collection

With a focus on natural beauty and sustainability, Australian fashion label ALBUS LUMEN has launched an uplifting 15-piece resort collection for men and women that highlights the suitability of Merino wool for warmer seasons.

No stranger to Australian Merino wool, Australian fashion label ALBUS LUMEN was an International Woolmark Prize finalist in 2019. Recently reuniting with AWI subsidiary The Woolmark Company, the brand's new collection explores lightweight 100% Australian Merino wool and Merino wool blend yarns and fabrics, showcasing the true trans-seasonal nature of the fibre.

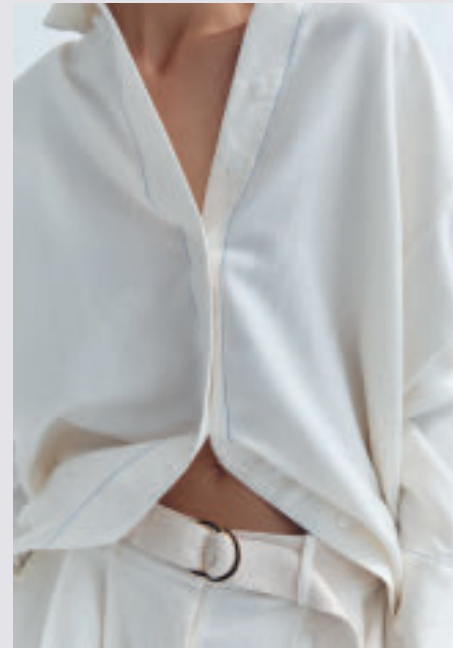
Inspired by "marine and anything water-inspired", the La Lagune collection is light in terms of colour as well as garment structure and fabric weight. The 100% Merino wool fabrics were sourced from Woolmark licensees Albini Group and Nikke textile for this designed-and-made in Australia collection.

15 Merino wool styles of oversized tailoring and dresses mixed with lightweight luxurious knits hero the collection for men and women.



Cool wool: 100% Australian Merino wool looks from ALBUS LUMEN.

"When a customer thinks of wool, they're most likely to think of something that feels heavy and is too hot to wear outside of winter," said ALBUS LUMEN's creative director Marina Afonina. "But wool doesn't need to be heavy. It's a beautiful,



natural fibre which is luxe, breathable and super versatile. I want to highlight these qualities which are part of Australian Merino wool's special allure." B

More information

www.albuslumen.com



The Horrocks Vale Collections 'Emily Gown' modelled by fellow South Australian designer and wool advocate Emily Riggs.

Wool wedding gowns

A Merino marriage made in heaven

Wedding dress designer Nikki Atkinson, who lives with her family on a wool-growing property in South Australia, has launched a new business creating wool-based luxury wedding dresses.

Married for 19 years to third generation woolgrower Dallas Lines, Nikki and her family grow fine Merino wool on their property 'Horrocks Vale', southeast of Port Augusta in South Australia. Nikki is not only an advocate of Merino wool, but is also an expert couture bridal designer, a career that began 25 years ago, before she moved to the country.

"I have always had a huge amount of respect for wool since studying fashion in college many years ago. Over the years, I've become utterly obsessed with Merino wool as a fibre and fabric, and I am consistently amazed at its unexpected silky soft texture, handle and drape – and it is much easier to work with than other fabrics," Nikki said.

"One key piece of advice I give every bride looking for their dream dress is: fashion has a timeline, whereas classic designs and beautiful fabrics last a lifetime."

In September, Nikki launched her new wool-based luxury wedding dress business, Horrocks Vale Collections, which initially comprises five timeless gowns plus accessories.

"I am now so excited to be able to bring together my two loves – wedding gowns and Australian Merino wool – and create garments that not only convey classic beauty but also align with the environmentally friendly movement in the fashion industry," she said.

"When I moved to 'Horrocks Vale, I had no idea that three kids, a fashion boutique and a thriving wool property later I would be a part of this incredibly important sustainable movement in the wedding fashion industry.

"There has been a huge amount of work behind the scenes to launch the collection, from finding the right fabrics, design, pattern making, create and make, photo shoots and many meetings. But this wool collection – paired with laces, beaded fabrics and silks – is one of my favourites to date and I'm incredibly honoured to be able to share it with everyone."

Nikki says wool's eco-credentials are essential in helping her business redefine luxury with wedding dresses that are kind not only to people and but also to the planet.

"Horrocks Vale Collections create sustainable, luxury wedding gowns that

offer today's bride the opportunity to feel naturally beautiful, comfortable and confident while staying true to her eco-friendly values, with an heirloom gown that can be passed down through the generations," she said.

The public had their first glimpse of the wool wedding dresses at the Royal Adelaide Show fashion parade in September. "The Show was awesome, so much fun, and there was a lot of interest in the dresses," Nikki said.

The collection is titled the Amalia Collection, named after princess Maria 'Amalia' of Saxony, who married King Carlos III of Spain; the Spanish monarchy being the first to have fine Merino wool in the world.

The wedding gowns can be viewed on the horrocksvale.com website and in person at their studio in Port Augusta. The gowns are occasionally on show in Adelaide; brides-to-be can also request a personal appointment with Nikki.

The gowns are made to order with a six-month production time, but Nikki recommends ordering your gown 10 months before your special day. The dresses are available in sizes 8-18 or can be custom made to specific measurements. Nikki is also more than happy to offer her expertise in helping you design your own dream Merino wool dress.

Nikki is also currently designing a range of exclusive wedding accessories for men, and a range of dog accessories so they can also look the part on the big day. **B**



The fine Merino 'Livi Dress'.

More information
www.horrocksvale.com

Leahcim Wool farm to yarn to you

Rosemary Michael of 'Leahcim' at Snowtown in South Australia has set up business transforming 100% Merino wool from her own family farm into yarn and knitted products, with the processing and manufacture done entirely in Australia.



Rosemary Michael selling her home-grown Leahcim Wool products at this year's Sheepvention in Hamilton, Victoria.

The Michael family has been farming at Snowtown in South Australia since 1873. The family's farm and stud, Leahcim, is run by Andrew and Rosemary Michael and their family, with Andrew well known in the industry for his passion to breed the best sheep possible. Rosemary shares Andrew's enthusiasm for sheep and also has a keen interest in crafting wool.

Given the effort they put into growing quality Merino wool, the Michaels recently decided to take some of their own wool through the supply chain themselves and have it processed and made into yarn and end-products, thereby enabling them to market the yarn/products with a unique

provenance and traceability story.

They began their venture at shearing in October 2019, when some of the best fleeces from their mixed aged ewes, 17-micron with 8.5 months' wool growth, was handpicked to make up a bale.

It was important for Rosemary that the wool processing takes place in Australia, so that the yarn is 100% Australian processed as well as Australian grown.

Rosemary and Andrew drove the bale of wool to EP Robinson in Geelong for scouring, from where it was taken to Cashmere Connections at Bacchus Marsh to be made into wool top. Rosemary kept some of the top, with the remainder sent to

Wangaratta Woollen Mills for spinning.

Rosemary says the production process took nine months, and it was with great anticipation that she opened the first boxes of yarn to assess what the quality was like.

"After many years of Leahcim breeding poll Merino sheep, using every bit of available technology, to produce sheep that are ethically and sustainably managed, and still tick all the boxes for meat and wool quality, I was hoping I wasn't going to be disappointed with what was inside," she said.

"My first thought was, 'It looks good'. Secondly, I put my hand on some wool on the cone, 'It feels particularly good'. Then once I started weaving and hand dyeing the spun wool, all I can say is, it is so soft and beautiful to handle and takes the dye colours so well.

"For the past year, we have been selling the yarn, under the name Leahcim Wool – farm to yarn to you. It has been a major part of my life since those first boxes of spun woollen yarn arrived back at Leahcim Farm and I'm enjoying every aspect of this beautiful product."

Rosemary has been touring rural shows selling her yarn. The shows range from the smaller, local shows like the Jamestown Show to the larger shows such as the Australian Sheep and Wool Show in Bendigo at which her marquee also showcased some of their own poll Merino sheep, showing the complete 'farm to yarn to you' story.

"Probably, the most exciting thing during the past couple of years is the reaction we get from everyone who takes the time to lay their hands on this 100% home grown, Australian product. It is this reaction that makes me realise, we have something very special," she said.

"Along with the wool, people love the fact they are talking with the farmers that grow the wool on their own family farm, and that it has been fully grown and processed without leaving Australian shores.

"There are a lot of people out there today that are looking for products that are ethically and sustainably produced. At Leahcim, we are doing everything possible to keep our part of the planet as sustainable as possible, so we can pass on this great land that we have inhabited to many generations to come."

The new business continues to grow. Last year, Rosemary sent off another two bales of their wool to be processed, and spun at Bendigo Woollen Mills, with half of it commercially dyed and then knitted by Silver Fleece in Adelaide into scarves, beanies and rugs/wraps. And in April this year, a third lot of their wool – this time, five bales – was despatched for processing.

"We continue to be overwhelmed by the interest and support we are receiving," Rosemary added.

More information
www.facebook.com/LeahcimWool

The NEIWAI X WOOLMARK collection showcases the source of the Merino wool fibre at the **Delahoy's 'Ballintubber'** property in Victoria.

Using traceability to showcase Australian wool

With the assistance of The Woolmark Company, Chinese apparel brand NEIWAI recently launched a Merino wool collection that is fully traceable through the supply chain back to the specific farm in Australia that produced the wool.

With consumers more and more interested in the eco-credentials and source of their clothing, brands are increasingly wanting to showcase the on-farm origin of the wool they use and the traceability of their clothing through the supply chain.

An example is premium Chinese lifestyle brand NEIWAI, with which AWI's marketing arm The Woolmark Company partnered to help launch a collection of high-quality – and traceable – Merino wool products.

The Woolmark-certified collection consists of 3D seamless wool apparel and geometric jacquard wool garments, including long-sleeved cardigans, V-neck vests, loose-fitting pullovers, knitted jumpers, and micro-jersey trousers.

This traceable Merino wool collection addresses the demand for sustainable, high-quality intimate apparel, with the superfine Merino wool providing the garments with a soft, comfortable feel next to the skin.

Blockchain technology aids traceability

With The Woolmark Company's assistance, NEIWAI utilised 'blockchain' technology

“This naturally superior fabric is made using pure, raw materials with verifiably eco-friendly sources in a transparent production process designed to allow wearers to know their clothing's story all the way back to its pasture-grown origins.”
Chinese brand NEIWAI

from digital transparency company Everledger to track and validate the exchange of ownership of the wool used in the new NEIWAI X WOOLMARK collection as it moved along the supply chain, from farm through overseas processing and manufacturing to finished products.

The 17.6-micron wool fibres used in the collection were sourced from Merino sheep on the 'Ballintubber' property run by Darryl and Lyndal Delahoy and their son Cameron, at Bulart near Hamilton in Victoria. The fibres were then processed by leading Chinese topmaker Red Sun before being spun into yarn by Südwole Group.

The result is that each of the apparel products at retail has a swing ticket with a QR code that enables consumers to trace the product from the sustainably grown fibre on-farm in Victoria to the final garment, thereby authenticating the provenance of the product.

AWI Program Manager, Woolmark Certification & Traceability, Mark Scott, says the traceability system used by NEIWAI follows on from a collaborative pilot project undertaken last year between AWI and Everledger that proved the feasibility of the



Marketing collateral for the **NEIWAI X WOOLMARK traceable collection.**

new technology.

“The technology promises value to all parties in the supply chain, whether that is attracting new buyers or higher prices for woolgrowers, enabling verifiable information for certifiers and regulators, or equipping apparel brands – in this case NEIWAI – to have a robust point of difference with their finished garments,” Mark said.

“The use of the technology on this NEIWAI X WOOLMARK collection is a real-world example of how AWI's investment in traceability systems is building brands' demand for wool, which ultimately creates returns for Australian woolgrowers.”

Showcasing the Delahoy's quality wool and on-farm eco-credentials

For three generations, the Delahoy family has run the property where 7,000 Merino sheep are currently farmed. Over many years, the family has gradually implemented different strategies to help the environment

A QR code on the swing ticket on each garment enables customers to find out the provenance of the garment and the wool fibre from which it is made.



Wool provides the preppy look

Exclusive French childrenswear brand Bonpoint has launched a range of 100% Australian Merino wool garments, targeted at parents with a taste for luxury.

Established in Paris in 1975, Bonpoint is a French fashion house that has built its high-end reputation selling luxury clothing for children and babies. The brand has more than 120 boutiques across 30 countries, from Paris to Shanghai, from London to Tokyo.

Bonpoint recently collaborated with The Woolmark Company for the launch of a collection of 36 Woolmark-certified products as part of the brand's Autumn/Winter 2022 collection. The project capitalises on the rise in demand for childrenswear, especially in growing markets like China.

The collection includes polos, crewneck sweaters, V-neck cardigans, rompers, leggings and beanies for boys, girls and babies – all made from 100% Australian Merino wool – and all created with more than a soupçon of French chic.

AWI Regional Manager Western Europe, Damien Pommeret, says Bonpoint is no ordinary childrenswear brand.

"Its customers are wealthy parents who want only the very best quality and style for their children – and they are prepared to pay premium prices. By targeting lucrative markets like this, we ultimately aim to lift the prices that Australian woolgrowers receive for the fibre they produce," he said.

"The brand's customers are attracted to a quality fibre like Australian Merino wool because it provides super-softness, thermoregulation and durability, as well as resistance to odour and stains – which is especially important for children's clothes.

"In addition, these parents are conscious consumers who want to feel good about their purchases. They are attracted to the eco-credentials of wool, knowing that it is 100% natural, renewable and biodegradable and doesn't contribute to microplastic pollution in the oceans or on land."

The collection was launched in October with marketing focussed on digital



The Autumn/Winter collection from French luxury childrenswear brand **Bonpoint** includes 36 Woolmark-certified garment styles made from 100% Australian Merino wool.

and social promotions, with a campaign video, targeted mainly at consumers in Europe and Asia, including China, Japan and Korea. The garments at retail include co-branded swingtags promoting the environmental and performance benefits of Merino wool.

"This opportunity has the potential to secure Bonpoint as a long-term brand partner beyond this particular project and increase wool sales in both summer and winter apparel in Asia, Europe and the USA," Damien added.

"Furthermore, the project provides international visibility for Merino wool in the luxury segment and could lead to business opportunities with other luxury brands." **B**

More information

www.bonpoint.com

www.woolmark.com/bonpoint

of the land that they farm.

"This is vital to help not only the environment but also to help our stock and to ensure the wool we produce is of good quality," Darryl said.

"Since the early 1990s, we have been planting shelter belts with native vegetation to help protect our stock and provide habitat for birdlife. We also planted our first agroforestry plantation in the late '90s and have planted several more since then.

"We continued to implement conservation strategies; in 2005 we fenced off a large dam and creating a wetland area that provides shelter for many native animals. We have also fenced off river and creek frontage to help prevent erosion. By putting these practices in place, we are creating a more sustainable environment for our future."

Cameron said it makes the family immensely proud to know that they are producing in a sustainable environment quality wool that an overseas brand like NEIWI wants to repeatedly purchase.

"The traceability project reinforces that our practices on the farm are producing wool that major companies are eager to buy. It is also great to be able to see that our wool is being produced into quality products," Cameron said.

"Consumers are nowadays a lot more conscious of the products that they are buying and where they come from. Traceability in the Australian wool industry is vital to help consumers make an informed choice about their purchases and make them more likely to support our industry and purchase wool products." **B**

Collaborative campaign boosts summer wool sales in Japan

The Woolmark Company has collaborated with a popular Japanese menswear e-magazine and 15 brand partners on a marketing campaign to build demand for their summer and office casual wool garments.



The campaign page on the **e-Begin website**. As well as highlighting a selection of wool garments available for purchase, the page included interviews with 10 industry professionals promoting the benefits of wool.

The recent marketing campaign with The Woolmark Company ran from 13 May to 31 July. It consisted of a dedicated campaign page on e-Begin that included 10 interviews with industry professionals (such as buyers for reputable shops or key personnel from manufacturers) highlighting wool's benefits.

"The wool items' year-on-year e-commerce sales during the campaign were up very significantly. We are certain this is the direct result of this campaign."
Mr Yamaguchi, Apparel Merchandising General Manager, MUJI

In previous years, individual Japanese brands and retailers have launched small quantities of wool products in their spring/summer collections, to trial the market's appetite for wool during the warmer seasons. But with very little marketing, the results have been mixed.

However, this year, The Woolmark Company launched a digital marketing campaign in collaboration with influential menswear magazine e-Begin and 15 premium brand partners to help increase sales of the brands' spring/summer wool garments – and the project performed well beyond what had been expected.

"We had been selling some lightweight wool blends for summer, but sales this season were significantly better."

Mr Nomura,
Designer, Urban Research

"Our aim was to educate consumers about wool as the premium fibre of choice for spring and summer, and drive consumer awareness and consumption of a selection of wool garments from the brand partners," said AWI Country Manager for Japan, Samuel Cockedey.

"While the quantity of wool garments being stocked by individual brands in the summertime tends to be too limited to warrant a significant financial investment in marketing, we feel this aggregated marketing format with 15 brands worked well and we hope to explore this again in the near future.

"Our spring/summer wool products were a trial run, but they sold so well through this campaign that we were able to produce additional quantities.

We are very grateful for the support of The Woolmark Company."

Mr Ito, Director of Product Division,
Baycrew Group

"We received great feedback from the participating brands who were very pleased by our support in promoting their nascent spring/summer wool collections. We anticipate that this year's promotion will encourage them to increase their usage of Merino wool."

Successful digital marketing campaign

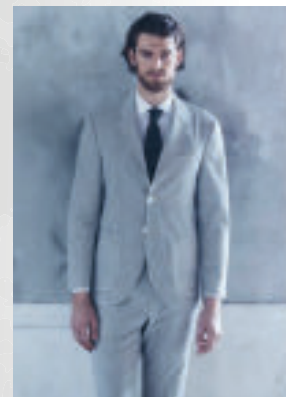
e-Begin is the digital version of *Begin* magazine, one of Japan's most influential men's fashion magazines popular with Japanese businessmen in their 30s and 40s. e-Begin was launched in 2015 as the online multi-brand store selling products featured in the magazine, before evolving into a fully-fledged digital media. Each month, e-Begin has more than seven million page views and two million users.

Importantly, the campaign page also included a shoppable selection of wool/wool blend garments, from which readers were guided either to the e-Begin e-commerce page or to the brands' own e-commerce pages. Promoted were 30 styles (primarily shirts, T-shirts, pants) and 49,000 wool/blended products from the 15 brand partners. A social media campaign drove traffic to the site and boosted campaign visibility.

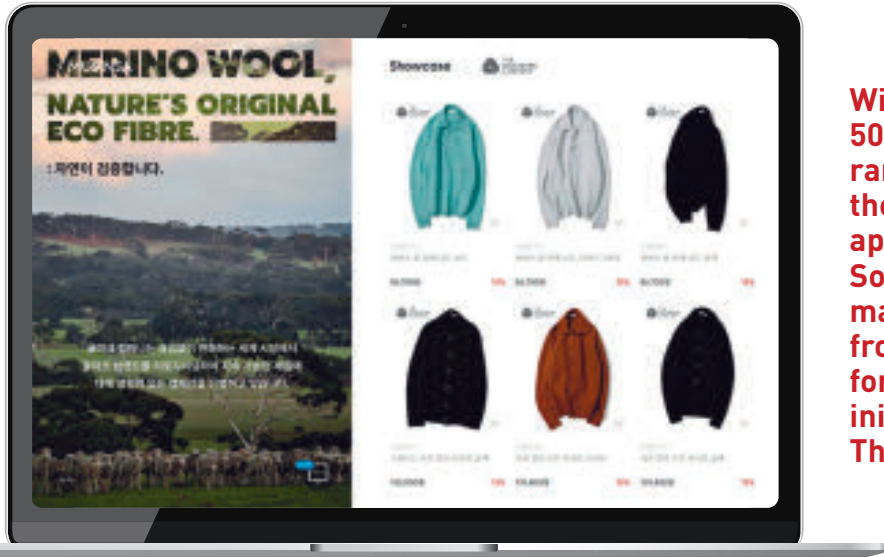
The campaign was hugely successful in increasing consumer awareness of wool for spring/summer garments. It had a reach of four million (four times the target) and achieved six million impressions (double the target). The click-through rate (CTR) for the campaign products was 8%, much higher than the partners' average.

"This clearly demonstrates many customers are now interested in wool for the spring/summer season," Samuel added. **B**

Left: Wool blend shirt by Japanese brand **Green Label Relaxing**, one of United Arrows' largest brands. Right: An innovative wool blend seersucker jacket and pants by Japanese brand **+CLOTHET**.



Wool shows its Gangnam style in Korea



The wool hub page on the **Muninsa** website.

With a population of more than 50 million people, an economy ranked tenth in the world, and the primary driver of customers' apparel purchases being quality, South Korea is a key consumer market for products made from Australian wool. Read on for a snapshot of some recent initiatives undertaken there by The Woolmark Company.

Promoting wool with online retail giant Muninsa

The largest e-commerce fashion platform in Korea, Muninsa, recently held a two-week Autumn/Winter marketing campaign in collaboration with The Woolmark Company, promoting 80,000 Merino wool pieces of apparel by 90 participating brands.

Muninsa's e-commerce site and a physical pop-up store showcased the benefits of wool and the Woolmark-certified products. The eco-benefits of the fibre were central to the campaign. Products could be purchased via a special wool hub page on the Muninsa website. The pop-up store featured a wool themed display, showcasing wool top and artwork developed by four local artists. An 11-minute documentary that promoted wool was also produced by Muninsa and released on its YouTube channel.



Replain's Merino wool collection was promoted on its website (left) and through other networks including a feature article in trend magazine *W Korea* (above).

New Merino collection from premium knitwear brand Replain

In collaboration with The Woolmark Company, Korean premium womenswear knitwear brand Replain recently launched its new Merino wool collection for Autumn/Winter, comprising 10,000 Woolmark-certified Merino wool pieces in 15 styles. The collection was available on Replain's website and through 11 key online retailers' websites.

The promotion included a digital, social and influencer campaign, including a testimonial video by YouTuber Bora Claire who has a following of more than half a million people, plus a pop-up store at the prestigious Hyundai Department Store Pangyo for eight days.

Naturally Inspiring seminar educates 243 students

The very first 'Naturally Inspiring' seminar conducted in Korea by The Woolmark Company was held in September. Its aim was to provide tertiary fashion and textile students with a knowledge of and a connection with Australian wool that will stay with them as they progress through their careers.

The seminar, held primarily online, was attended by 243 students from 17 universities. They received a presentation of The Woolmark Company's 'Wool Appreciation Course'; a presentation on global textile trends and wool as an eco-friendly fibre, by the CEO of knitted fabric manufacturer Mira Corporation, Jaemyung Shin; and a presentation on sustainability in fashion and brand management, by the founder and designer of fashion brand Post December, Sohyun Bhaak.



243 students from 17 universities received an education about wool.

China marketing campaign for Autumn/Winter 2022

This year's campaign by AWI's marketing arm, The Woolmark Company, positions Australian Merino wool as a premium natural fibre, with promotions that include exciting firsts as well as proven strategies involving leading brands showcasing their wool products.

Building on its successful campaigns in previous years, The Woolmark Company's new marketing campaign in China aims to make Merino wool the most coveted apparel fibre for consumers this Autumn/Winter season.

Sitting under the umbrella theme of 'Merino Wool. Live with Nature', keywords throughout this season's campaign include: circularity, sustainability, durability and machine-washable, in addition to the three key pillars of wool being natural, renewable and biodegradable.

The campaign has adopted a multi-hybrid digital, social, influencer and physical approach to promoting the benefits of Merino wool to consumers.

A key part of the campaign is the launch of a 60-second video titled *Much Loved*, bringing the warmth of Merino wool to life by viewers witnessing the fibre, family and friends over different seasons and stages of life – see below.

The release of the new video also promotes the growth of retail and brand partnerships with The Woolmark Company during the Autumn/Winter season, bringing high-quality and fashionable wool apparel to consumers in China. This year's Autumn/Winter program has expanded its coverage from previous years to feature four of the world's leading online and offline retail platforms joined by more than a thousand brand partnerships.

As it did in the previous three Autumn/Winter seasons, China's most influential business-to-consumer e-commerce platform, TMALL, launched the 'Wool Pavillion' promotion on its platform in September, featuring brand partners, designers, and key products as part of its e-commerce campaign and as a lead-up to the Double 11 online shopping extravaganza. Double 11 (also known as Singles' Day) is an online shopping festival held on 11 November in China that is similar, in some ways, to Black Friday in the US.



Strategic retail partnerships with heavy hitters including Farfetch, Lane Crawford and Net-a-Porter saw a combination of online and offline event, media and retail activations that kicked off in September, with some extended until Christmas to maximise wool garment sales.

The Woolmark Company's first-ever advertising on 3D digital billboards in China were rolled out in busy areas of the fashion megacities of Shanghai and Chengdu, providing a powerful visual experience that highlighted the versatility and beauty of Merino wool through an impactful 'dance' between fibre and garments.

The success of the campaign will be measured through analysis of media and social engagement and, most importantly, by the increase in Merino wool sales. The results of the campaign will be reported in the next edition of *Beyond the Bale*.

'Much loved' video showcases the life cycle of wool

The Woolmark Company has released a creative 60-second video titled *Much Loved*, featuring Chinese actress Ruonan Zhang (who has more than 10.5 million followers on Weibo). The video recounts Merino wool at different stages of its life cycle, serving as a loyal companion while bringing joy and love to people's daily lives.

The short video captures the complete life cycle of wool yarn, treating it as a vehicle for passing on fond memories of families, loved ones and friends. The green wool fibre bears witness to generations of tears and laughter as the daughter's sweater, the couple's mittens, the wool scarf passed down by the Wang family and the rugby player's game gear. In the end, it lies quietly on the vibrant greenery, waiting for its next cycle of life to begin.

"We hope this video will evoke fond memories of families, friends, and

childhood; seeing Merino wool as a means to promote love, warmth and happiness. We also hope to raise awareness of Merino wool and its numerous possibilities through our Autumn/Winter campaign," said Jeff Ma, AWI Country Manager China.

The video debuted in September and featured across e-commerce, social media and online entertainment platforms including TMALL, Weibo, WeChat, Douyin, Little Red Book and iQiyi.



Screenshots from the 'Much loved' video

2023 International Woolmark Prize finalists



IWP2023

The 2023 finalists (from left): R H U D E, USA; MAXXIJ, South Korea; Bluemarle, France; A. ROEGE HOVE, Denmark; ROBYN LYNCH, Ireland; MARCO RAMBALDI, Italy; Paolina Russo, UK; Lagos Space Programme, Nigeria.

Eight of the world's most promising emerging design talents were last month selected as finalists from hundreds of applications for the 2023 International Woolmark Prize, the world's original and most prestigious fashion awards and talent development program.

The program generates long-term demand for Australian Merino wool by building and strengthening the reputation of the fibre as the ultimate ingredient of sustainable luxury fashion.

Since its inception in the 1950s, the International Woolmark Prize has been awarded to young fashion designers that have gone on to become some of the most era-defining creatives of their generation: from Karl Lagerfeld and Yves Saint Laurent to Giorgio Armani and Ralph Lauren.

Relaunched in 2012 by AWI's marketing arm, The Woolmark Company, the International Woolmark Prize is an award for the world's most promising design talent. Every year, the designers develop and present their most innovative designs to a panel of judges comprising distinguished industry heavyweights.

But the International Woolmark Prize program is a lot more than a fashion design award.

The program runs across an 18-month

cycle and provides the international designers with education, mentorship, networking opportunities, early-stage funding, global wool supply chain access and commercialisation.

Importantly, it generates long-term demand for Australian Merino wool by increasing the knowledge of and lifetime loyalty to the fibre amongst the award's designers and more than 600 alumni across the globe.

Furthermore, the phenomenal interest in these awards from fashion communities and media globally has helped put wool back on the agendas of a broader range of fashion designers, manufacturers, brands and retailers, and consequently into retail stores for consumers to purchase.

The 2023 IWP finalists

The 2023 International Woolmark Prize finalists (see above image) were announced last month. The eight finalists will each develop six Merino wool looks as part of their Autumns/Winter 2023 collection, or a standalone IWP2023 capsule collection which highlights the innate versatility, innovative nature and eco-credentials of Merino wool.

All finalists will have the opportunity to be stocked at some of the world's leading stores, via the International Woolmark Prize Retailer Network.

"This group of finalists represents the next generation of creative game-changers, who all want to design fashion for a better tomorrow," explained AWI CEO John Roberts.

"As the fashion and textile industry continues to evolve amongst an ever-changing landscape, we hope that our support throughout the International Woolmark Prize will inspire and propel design and business strategies of our eight finalists."

This year's theme – *Dialogue* – represents both an important element in the creative process and acts as a letter both to, and for, the next generation. The theme reflects The Woolmark Company's mission to establish dialogue and connect leading design talent with industry players to collectively envision a more sustainable future.

IWP Innovation Academy mentoring and education program

Each 2023 finalist will be supported by the program's education and mentoring initiative, the Innovation Academy, including support for product ideation, commercial development, supply chain connections and sustainability strategies to assist in the development of their collections and brands.

The program boasts a global network of more than 50 progressive international supply chain partners including BYBORRE, D-House, Knitwear Lab, Laxton's, Studio Eva x Carola and studioe®.

Industry leaders involved with mentoring the finalists include: Gabriella Karefa-Johnson, Global Fashion Editor-at-Large, *Vogue* and Stylist; Holli Rogers, Chief Brand Officer, Farfetch; Sara Sozzani Maino, Scouting and Educational Initiatives Advisor *Vogue Italia* & International Brand Ambassador Camera Nazionale della Moda Italiana; Shaway Yeh, Founder YehYehYeh and Group Style Editorial Director Modern Media Group; Sinéad Burke, Educator and Advocate; and Tim Blanks, Editor-at-Large, *Business of Fashion*. **B**

More information
www.woolmarkprize.com

Forerunner and innovator Dick Goodstein

Dick Goodstein is a US-based textile development consultant at The Woolmark Company. He has a wealth of experience, from pioneering the use of Merino wool running gear in the early days of his career, to nowadays exploring new ideas for wool as the market trends towards casualisation.



US-based textile development consultant at The Woolmark Company, **Dick Goodstein**.

Born in the 1940s, just half a mile from where he currently lives in Manhattan, Dick is a true Manhattanite, not just because of the length of time he has spent living in the famous New York City borough, but also because of his straightforward attitude and positive approach to his work.

He has had a long career in the textile industry, specialising in developing leading edge Merino wool fabric innovations for the activewear and sportswear markets.

After studying Fine Arts in the early 1960s at the University of Colorado, where he also did a lot of skiing in the nearby Rocky Mountains, Dick started his career working in New York on men's knitted fabrics for many US textile companies. This led to consulting for textile and apparel companies in France, Italy and Japan.

Pioneer of running in wool

In his spare time, and many miles from the ski slopes of the Rockies, he took up running for

exercise, which was unheard of in New York in the '60s. This was before the emergence of recreational jogging and running, which only became popular in the USA in the 1970s with the rise of celebrity runners like Steve Prefontaine and Frank Shorter. But soon after, seeing the potential market for specialist running gear, Dick launched a running apparel business called Race Pace, which was ground-breaking at the time.

Dick also did apparel design in men's sportswear for designer brands such as Yves Saint Laurent and Christian Dior as well as Phillips-Van Heusen and Macy's private label.

He later joined the Wool Bureau (the American wing of the International Wool Secretariat) for a few years, where he acquired substantial exposure to textile designing with wool. It was here that he designed a fabric knitted with fine Merino wool which was made into a next-to-skin polo shirt. Dick wore the wool top while running – which was revolutionary – and he became smitten with the fibre for sports and activewear.

Dick continued as a very keen runner for many decades, into his 70s, running in about 45 countries and completing marathons – mainly while wearing wool. Although his main exercise nowadays is at the gym, he is still very plugged into the running industry. He has worked on textile developments for companies including ASICS, Brooks, adidas and Pearl Izumi.

Developing fresh ideas for wool

Dick began working as a consultant for AWI and The Woolmark Company after meeting AWI's Stuart McCullough who was at the time managing the company's activities in North America. Dick has since worked with companies like US textile manufacturer L.W. Packard & Co and knitting machine manufacturer STOLL, while liaising with The Woolmark Company's technical teams in China, Japan and of course the USA.

"My job as textile developer is all about coming up with fresh ideas for wool, looking

for new markets for wool," Dick said.

"In my time in the industry, I've seen the next-to-skin Merino wool base-layer market become a 'mature' market. That's not to say that there isn't a lot more potential to sell Merino in this sector. But my job as a textile developer is to move on and try and find something completely new that hasn't been done before, rather than trying to improve a product that's already on the market.

"For example, looking at men's blazers made on flatbed knitting machines rather than the traditional cut and sew, which will make them dressier than a normal jacket but more casual than a traditional blazer. Or looking at wool pants made on a knitting machine, because currently the below-the-waist market is dominated by chinos and jeans, with very little wool."

Dick says he generally focusses on mid and outer layer products.

"I think the products currently on the market are too smooth and too technical, so I'm looking at ways to use wool to make the surface look irregular using uneven twisting yarn, to make the product look more individual to the owner."

Textile development

Dick says textile development takes time. Textile developers need to work a couple of years ahead of the market – and they need persistence to make the impossible possible.

"The secret to doing successful textile development is, firstly, to be methodical, don't try to go straight from a to z, but take the steps a to b to c..., and secondly, look at mistakes and setbacks as opportunities to learn and succeed," Dick said.

"Our job as textile developers is to put a shiny new object in front of brands and manufacturers – develop something that really works – and then let them decide how they will use it and do the marketing.

"In the premium sports and leisure apparel market that we work in, the price of the product shouldn't really be a consideration. Apparel is relatively inexpensive when you consider the amount that these customers are willing to pay for gear, such as skis for example."

Dick says consumers became accustomed to non-restrictive apparel during COVID, with product development nowadays all about adding comfort.

"Casualisation is an indelible aspect of how we live our lives now. This trend was exacerbated by COVID and will continue, especially given the emergence of the four-day working week, in parts of the West at least," he said.

"And of course, with the market so focussed on sustainability, wool is obviously ideally placed due to its natural and biodegradable attributes." B

Formalwear 2.0: The knitted suit

The next stage in the evolution of the suit has arrived in shops across the world courtesy of The Woolmark Company and German clothing brand BOSS. This fully knitted Merino wool-blend suit is a pivotal moment in the history of suit construction and is the first of its kind for BOSS.

With more than 400 of its own stores worldwide, BOSS is the core brand of HUGO BOSS, one of the world's leading companies in the premium segment of the global apparel market. Formalwear, including the suit, is the DNA of BOSS. However, as global apparel shifts towards casualisation, the brand believes the time is right for a new era of formalwear that captures this trend.

As a result, BOSS has launched what it calls the 'Suit of the Future' – a knitted Merino wool-blend suit – designed and developed in partnership with The Woolmark Company. Essentially this suit is an evolution of the classic suit towards comfort, innovative material, and performance.

"The 'Suit of the Future' is not just meant to be worn at the workplace or to the meeting room, but also on a flight or to your workout! It is the perfect suit for the 24/7 lifestyle, keeping you fresh, comfortable and stylish all day," BOSS states.

"Engineered for performance, the suit has the comfort and ease of knitwear with the elegance of tailoring, making it

the perfect choice for life on the move. With the 'Suit of the Future', you are ready for any event, occasion or plan for the day."

Designed in Germany and made in Italy, the Woolmark-certified suit's characteristic sleek silhouette is crafted using an innovative construction method. This one-of-a-kind technique requires no seams, cutlines, or technical trims, ensuring that no fabric goes to waste during assembly.

In addition to embracing wool's well known natural benefits – such as breathability, temperature regulation and odour resistance – the knitted suit is made from an exclusively developed yarn that lends the suit enhanced flexibility, durability and comfort.

AWI CEO John Roberts says the fully knitted suit is a game changer.

"This really is an important innovation which offers a new technology and methodology to produce a suit. This won't replace tailored suits, but rather give the consumer additional options," he said.

The knitted suit is available globally in selected BOSS stores and online. B

More information

www.hugoboss.com/au/boss-men-performance/#knittedsuit
www.woolmark.com/boss

A Next Gen star for a Next Gen suit! BOSS brand ambassador and TikTok's most followed star, **Khaby Lame**, is the face of BOSS's marketing campaign for the knitted wool-blend suit.



Aussie fashion students designing with wool

Through grants provided by the Australian Wool Education Trust, AWI promotes the use of wool by leading Australian fashion design students. The initiative aims to instill the students with a knowledge of and connection with Australian wool that will stay with them as they progress through their careers.

Established by the Australian Wool Testing Authority (AWTA) in 1997, the Australian Wool Education Trust is an independent body administered by five trustees, two appointed by each of AWTA and AWI and one appointed by Wool Industries Australia.

The aim of the Trust is to encourage the education in Australia of students planning a career in the wool industry – from young farmers, all along the supply chain to budding fashion designers.

In addition to providing research scholarships, hosting of educational resources and other activities, the Trust started providing grants in 2015 to selected fashion design students to explore the use of wool in textiles and fashion. The students are required to incorporate 80% wool into their final collections at college.

In 2021, AWET provided 30 grants, totalling \$50,000, to selected students in their final year at 10 Australian fashion schools. Two of those graduates are highlighted here.

More information
www.woolwise.com



Cameron Hill

Cameron Hill is an emerging textile led designer, who received a Bachelor of Design in Fashion and Textiles from University of Technology Sydney (UTS) in 2021. Her Honours graduation collection had a strong focus on local sourcing and using Australian Merino wool.

"I love how wool is a natural and sustainable fibre, is durable while being extremely comfortable next to the skin, and once knitted it feels very luxurious. I believe using wool elevated the quality of my Honours knitwear collection and gave it a premium feel," Cameron said.

"The collection has a focus on knitted lacework that re-conceptualises grandmasque knits into contemporary garments that sculpt the body.

"To create the colours that I wanted, I contacted Geelong Dyeing and had them dye 17 custom yarn colours in 2/28NM 20.5-micron 100% Australian Merino wool. The company is very keen on seeing how creatives are using their yarn."

Now located in Byron Bay, Cameron works as a designer and product developer at Australian premium fashion and lifestyle brand Nagnata, a brand that uses a lot of Merino wool in its garments and which The Woolmark Company has a good relationship.

"It was amazing to continue the same work from my Honours project into my career as a designer. Nagnata has a huge passion for eliminating synthetics and works extremely closely with natural fibres

Australian actress **Jess Bush** wearing a diamond stitched boucle **wool coat**, from Cameron Hill's graduate collection, for a shoot in the fashion bible *Women's Wear Daily*.



and the innovation of knitting with it," Cameron said.

"I want to continue working for brands that have a strong focus on sustainability and natural materials such as wool. My goal in the next few years is to start my own knitwear/tailored label with a focus on natural fibres only – zero synthetics, and zero-minimal wastage."

More information

www.instagram.com/cameronamyhill

Diamond stitched **wool jacket**, plus stripe lace **knit dress** (right) that was made using 100% Merino wool yarns custom dyed by Geelong Dyeing, plus detail (bottom left).





A wool-rich look from Hugo Stynes' graduate collection, featuring classical and contemporary menswear styles, being showcased at Melbourne Fashion Week Student Collections Runway in October 2021.

Hugo Stynes

Hugo Stynes is a Melbourne-based designer and graduate of the Whitehouse Institute of Design (Melbourne campus) who completed a Bachelor of Design and Graduate Certificate of Design in 2021. Hugo was brought up on the family's farm in South Gippsland in regional Victoria.

His graduate collection, titled 'What He Wore', has been tremendously successful, being selected to feature in the Melbourne Fashion Week Student Collections Runway (October 2021) and the Melbourne Fashion Festival National Graduate Showcase (March 2022), both of which shine a spotlight on the next generation of Australia's flourishing fashion design talent.

"The four looks in my collection are made up predominately of Australian wool in varying weights and textures that offer an underlying warmth and softness, and a sophisticated textural and tonal variety. Quality textiles, exemplified by Australian wools, were so important in bringing my collection together," Hugo said.

Since graduating, Hugo has continued to work on his fashion label, while at the same time working as the assistant fashion buyer and product developer at Henry Bucks gentlemen's outfitter (established in Melbourne in 1890), which he is loving.

"I'm focused on getting into the industry, working, and learning as much as I can. I am still designing of course, mostly womenswear at the moment. I'm working on developing my process and extending the scope of my designs."

Hugo says that sustainability in fashion is fundamentally important nowadays.

"Thankfully, it seems to me that most new designers are making a genuine effort to minimise their environmental impact. In my case, I attempt to use almost exclusively natural fibres and reduce any material wastage. Furthermore, I prioritise high-quality fabrication and materials so that garments that I design are made to last and hopefully exist as staple wardrobe pieces for a long time." **B**

More information
www.instagram.com/h.w.stynes

Merino prints to dye for



The main sample (above) of Rebecca Rouncefield's winning entry (left) showcases screen printing on Merino wool.

Leeds-based Rebecca Rouncefield has won The Woolmark Company Award at this year's Bradford Textile Society Awards for her printing onto woven wool to create designs for the activewear market.

Through sponsorship of the prestigious Bradford Textile Society Awards in the UK, AWI has continued to promote Merino wool to tertiary textile students and the next generation of designers in this important country for both design and retail.

Entrants into The Woolmark Company Award at the Bradford Textile Society Awards had to create a textile design for a wool-rich fabric, of any construction, which can be used for fashion, accessories or for interior products. The fabric had to contain a minimum 60% Merino wool and highlight the versatility and natural benefits of the luxury fibre.

Textile designer Rebecca Rouncefield, who specialises in printed textiles, won the award in this year's competition. Rebecca recently graduated from Leeds Arts University with First Class Honours in Textile Design. Throughout her studies, Rebecca prioritised using natural fibres such as wool.

"Winning The Woolmark Company Award was the cherry on top of graduating this summer. It has definitely inspired me to revisit working with wool in my future design collections," Rebecca said.

"During my studies, I really enjoyed

print sampling using a wide range of wools, including small samples of Merino wool. I'm a screen printer and used acid dye pastes during my work with wool, and in my winning design on textured Merino wool.

"This process beautifully blends colours and textures on the wool, and allows colour and pattern to completely saturate the fabric. I loved working in this way with wool, as it resulted in sophisticated, unexpected, and tonal designs."

Rebecca's winning abstract design was influenced by her experience of the Cornish coastline and swimming in its waves. She says the design is suited to the contemporary activewear market.

"I chose to showcase this design on Merino wool as the design is made for movement, and a Merino wool base-layer would highlight the benefits of the material, whilst allowing the design to be used in its environment. The fineness of Merino wool also demonstrates the delicate acid dye paste printing process very well."

Since graduating from Leeds Arts University, Rebecca has launched her own small business and freelance career, based in Leeds.

"In the New Year I'm planning to explore natural dyeing processes again, and I'm already stockpiling wool samples to use," Rebecca added. **B**

More information
www.StudioRouncefield.co.uk
www.instagram.com/StudioRouncefield

Wool4School inspires and educates high school students

Wool4School is an annual student competition that offers a complete fashion design experience in the classroom while introducing a new generation of students to the versatility of Australian wool.

Wool4School is an annual competition that has been running for more than a decade and involved more than 150,000 students worldwide, not only learning the fundamentals of fashion design but also exploring the benefits and versatility of wool and the fabric it creates.

AWI Program Manager - Education Extension, Kelly McAvoy, says Wool4School

invites students to think about the versatility of various wool fabrics as part of a creative design of their own.

"The aim of the Wool4School design competition is to teach school-aged students the benefits of Australian wool so that these future designers and consumers understand wool's benefits and are more likely to use Australian wool as their fibre of choice," Kelly said.

On the back of the success of Wool4School in Australia, AWI also currently runs the student design competition in the key markets of the United Kingdom and Italy. **B**

More information
www.wool4school.com

The theme of the 2021/22 Wool4School competition was 'Design for your Hero', in which students were invited to choose their hero and design a wool outfit for them that embodies their interpretation of sustainability.



2022 AUSTRALIA COMPETITION

Pictured above is a page from the winning entry of Year 12 student **Ksenia Cosmo** of Melbourne Girls Grammar School. Her heroes that she used as inspiration are **Elton John** and **Courtney Act**. This year's partners in the competition were Whitehouse Institute of Design, apparel brand Assembly Label and sewing machine manufacturer BERNINA.

2022 Wool4School competition winners

2021/22 UK COMPETITION

For the second year in a row, **Elenya Beard** from Bishopston Comprehensive School in Swansea was the winner of the junior category for her wonderful design for **para-triathlete Claire Danson** – pictured below is a page from Elenya's winning entry. **Eva Hayes** from Invicta Grammar School in Kent was the winner of the senior category for her designs for **singer-songwriter Harry Styles**. This year's competition partner was the prestigious London College of Fashion at the University of the Arts London.



2021/22 ITALY COMPETITION

The Wool4School winner was **Giacomo Bussani**, a fifth-year student at the Enrico and Umberto Nordio State Art School in Trieste, with his project 'My First Lady' which had his mother as the source of inspiration. Pictured above is a page from Giacomo's winning entry. The 2022 competition partner was the prestigious Italian mill Vitale Barberis Canonico.



Ksenia Cosmo of Melbourne Girls Grammar School modelling her **winning** design of the 2022 Australia competition.



The students with AWI and AWH staff at AWH's wool store in Goulburn.



Italian students **Dina Carlino**, **Elisa Valle** and **Edoardo Verani**.

2023 Wool4School competition – How to get involved

Registrations are now open for the Australian edition of the 2023 Wool4School competition.

The theme of this year's competition is 'Repair, renew, repurpose, and innovate'. Students are asked to redesign and restore a vintage, retro or pre-owned garment to give it new life with wool or combine wool items that would otherwise be discarded.

The competition closes on 20 July 2023, with winners announced on 17 August 2023. There are a host of amazing prizes on offer.

WOOLGROWERS AND PARENTS:

Contact your local high school and encourage them to get involved in the Wool4School program. Information for schools and teachers is available at www.wool4school.com

YEAR 7-12 STUDENTS:

Learn more about the exciting competition and prizes at www.wool4school.com.

Visit to Australia by Biella Masters

Three Italian postgraduate students on a global study tour recently visited Australia to increase their knowledge of the Australian wool industry and how the fibre is produced.

AWI supported the visit in September by the three Italian students on the Biella Masters Noble Fibre postgraduate course to help them learn more about the production and natural attributes of Merino wool in Australia.

During their year-long course, which is based in Biella, the students examine the entire textile supply chain, from the raw materials through to the final product. In addition to their studies in Italy, the students undertake an overseas tour, including to Australia.

The Woolmark Company has supported visits to Australia by Biella Masters' students since 1981 which demonstrates the long-standing relationship between the two organisations.

This year, the students visited the wool auctions at Yennora, before travelling

to the Southern Tablelands of NSW to visit several wool-growing properties – Markdale at Crooked Corner, Hollow Mount at Bigga, and Hillcrest at Bigga – and AWH's wool store at Goulburn. They also visited the AWI office in Sydney where they learnt about AWI's R&D, marketing and education activities.

The students said they found the tour very interesting and came out of the experience with positive feedback and a great appreciation for Australian wool.

"I loved the experience of visiting the farms so much. It was interesting to see the differences between the sheep and wool in Australia to those in New Zealand where we had previously visited," said student Dina Carlino, who is a graduate in Fashion Design from the Academy of Fine Arts in Palermo, Sicily.

"My favourite part was seeing the rams and learning about artificial insemination. I also liked the attention and care that is given to animal welfare.

"In Sydney, the wool auction was very exciting, and I really enjoyed the presentations at the AWI offices, seeing The Wool Lab trend books and touching the fabrics inside them. I like wool because it has extraordinary properties: it is super-soft, naturally thermoregulating, a naturally renewable material and it does not wrinkle.

Market Intelligence

Australian Wool Testing Authority (AWTA) Key Test Data shows that just 0.5% more wool (by weight) has been tested in the first third of the 2022/23 season (July-October 2022) compared with the same four months of last season – see Figure 1.

This is well below the Australian Wool Production Forecasting Committee’s (AWPFC) forecast of a 4.9% increase across the whole of this current season. For the AWPFC’s season forecast of 340mkg to be met, there needs to be an average 7.1% increase every month from November through to the end of the 2022/23 season in June 2023.

The delivery of fresh wool into brokers’ stores and test sites from the dominant wool producing region of south-eastern Australia has been severely hampered due to the continuation of the La Niña induced big wet that dominates weather patterns in that area. Flooding and wet conditions have prevented shearers and staff from being able to travel freely, and there has been no access to many shearing sheds. Graziers have sometimes lacked the means to muster stock, and shearers have sometimes been unable to finish sheds off.

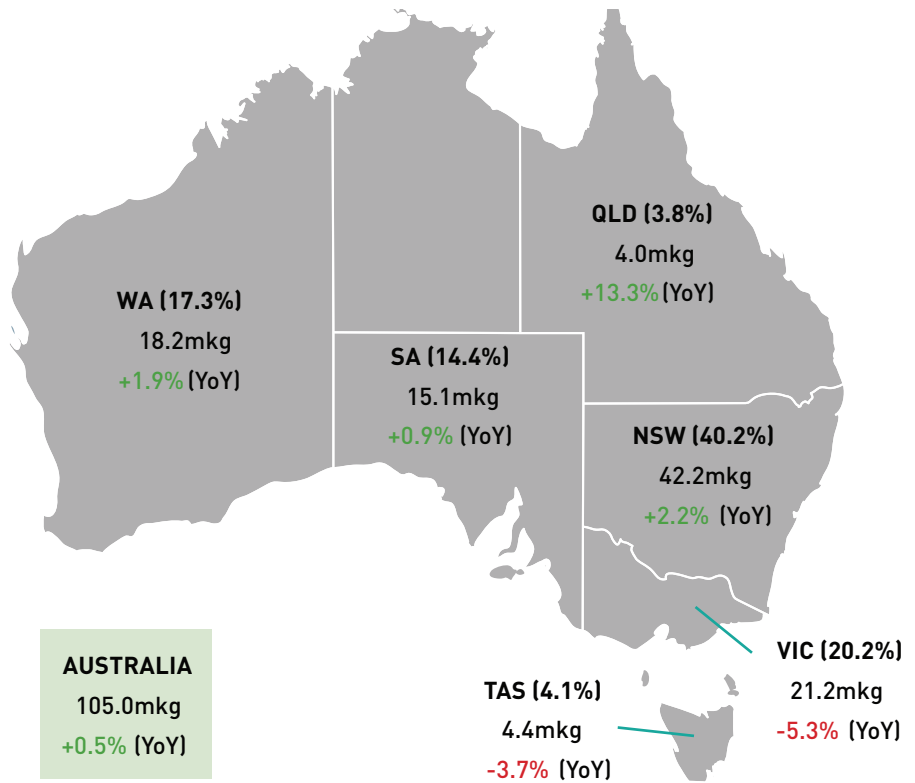
Despite these adverse conditions, the affected states of NSW and Victoria combined have so far produced very similar volumes for testing compared to last year at the same time. In fact, the largest producing state of NSW has seen a 2.2% increase compared to the 0.5% national improvement. NSW continues to be the most prolific wool producing state with its wool comprising more than 40% of the national clip tested during the first four months of 2022/23.

Queensland appears to be continuing its trend of increasing wool volumes. This year, Queensland woolgrowers have so far sent 13% more weight into testing facilities compared to the same period last year, although the Queensland increase is coming off a very low production base.

Tasmania and Victoria are down on volumes tested this year, but all other states have recorded small year on year increases in volumes tested.

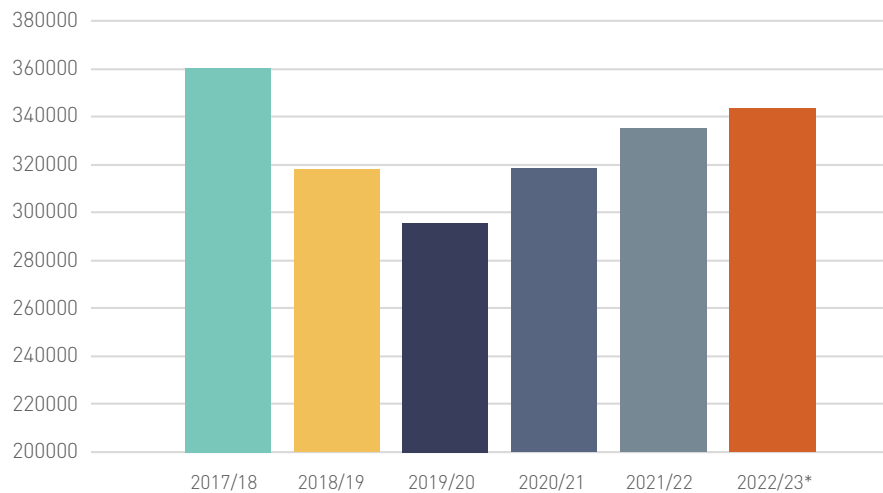
Preliminary indications (through micron profiles of wools tested by AWTA thus far in 2022/23) show that 14.8% of wool tested was broader than 23.5micron, which is somewhat comparable to the 14.5% for the same period last season and therefore not increasing significantly as is commonly speculated.

FIGURE 1: AUSTRALIAN WOOL PRODUCTION BY WEIGHT JULY-OCTOBER 2022



Source AWTA Key test data

FIGURE 2: ANNUAL AUSTRALIAN WOOL PRODUCTION BY AWTA KEY TEST DATA



* estimate

ence report

AWEX auction volumes, values and clearance rates

At auction, by the end of week 19 (11/11/2022) AWEX reports that for the 2022/23 selling season there had been:

- **offered** 614,602 bales (approx. 110.6mkg greasy) at auction. This is 6,004 more bales (approx. 1.1mkg) or **1.0%** more wool offered compared to the same point of last year, or an average of 375 additional bales offered each sale week.
- **sold** 531,122 bales (approx. 95.6mkg greasy) at auction. This is 20,225 more bales (approx. 3.6mkg) or **4.0%** more wool sold compared to the same point of last year, or an average of 1,264 bales sold per sale week.
- **total raw wool value sold** at auction of \$835 million. This is \$12million or **1.5%** more than that sold by the same point in time last year.
- **clearance rates** so far this season of 86.42% of all wool offered. This is **2.94%** more than by the same point in time last year.

Wool price trends

Since the commencement of the new season, the Eastern Market Indicator (EMI) has depreciated from 1407ac/clean kg to conclude week 19 (11th Nov 2022) at 1241ac/clean kg. This is a seasonal loss of 166ac or 11.8% in Australian dollar terms.

In harsher fortunes, and more indicative of the slack demand pointers, the USD EMI has fallen from 955usc/clean kg at the start of the season in July to be 807usc/clean kg by the end of week 19. This is a seasonal depreciation of 15.5% or 148usc in US dollar terms.

The 12-month comparison (more relative to growers' annual shearing cycles), see Figure 3, is better in AUD with the year to year loss being 5.9%. The USD value though is substantially worse than the season result thus far having lost 17% in real value over a 12-month comparison.

The hold up in supply hitting the auctions has helped hold prices higher than what the situation could have been. Many of the trade pundits state that if the expected 5% increase in volumes had been offered during the abnormally low demand periods of the past two months, then price levels would have been even harder hit.

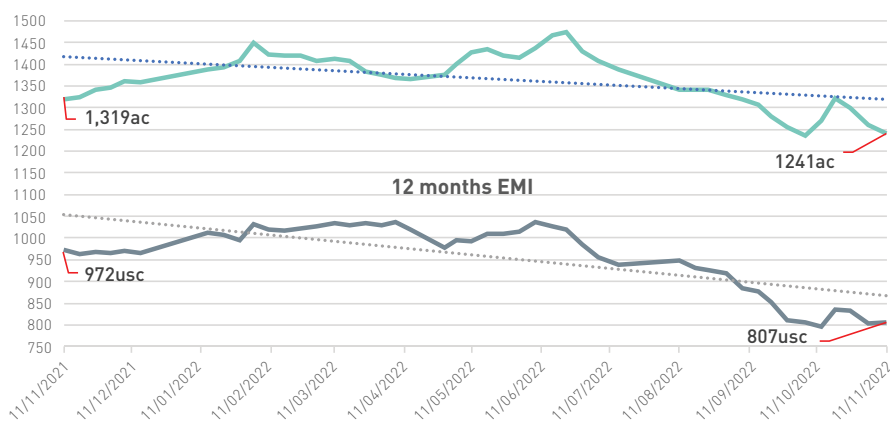
Decisions by growers and their seller representatives to offload heavily during the normally difficult trading and buying months of August and September is partly responsible for the slack markets at present as that quantity bought is absorbed into the 2022/23 winter collections by Chinese and European manufacturers for the Northern Hemisphere retailing. That would be

hampering the prompt and spot markets, with finer wools most affected.

Whilst wool prices have been in a general decline (-8%) since the commencement of the season, the superfine Merino wools have borne the brunt of the heaviest c/kg and percentage losses. In AUD terms, the ultrafine and superfine types have lost about 16% whilst the fine and medium Merino types are just 3 to 5% lower. Crossbreds are similarly affected at around 5% lower and at the broadest edge small increases have resulted albeit from a low starting base.

The USD prices though tell the true raw wool value story. The losses at the finest end of the Merino spectrum (less than 19-micron) average around 23% and the rest of the clip has recorded falls to the magnitude of 13% in just four months of selling. The USD EMI has fallen 16% since the start of July 2022.

FIGURE 3: EASTERN MARKET INDICATOR FROM 11 NOV 2021 TO 11 NOV 2022, IN AU AND US PRICES



Some observations on the wool trade

The global growth outlook is showing glimmers of positives in our major wool trading partners (India, China and parts of the Euro zone), but some strong inhibitors remain very much in play, including global inflation, the war in Ukraine, ungainly higher energy costs and escalating geopolitical tensions.

On top of this, the recent US elections have seen the Republicans take the House of Representatives which likely puts the USA into legislative gridlock for the next two years, denying a potential stimulus or anti-inflationary policy.

The two largest Chinese top makers continue to be active at auction, but their buying has been targeting the better types for top making to European specifications. While they have had difficulty in selling wool tops into the local Chinese market, they have made considerable inroads into the European tops market, particularly for wool tops finer than 20 micron.

The season thus far has seen a major resurgence by Indian businesses. Many of the better tested wools are currently destined for India and orders from India are quite often the price setting orders in the spot market. All the major Indian mills are involved. In fact, early ABS export destination figures are showing India has shot to almost 8% of wool exports for

the early section of the 2022/23 season (having been 4-5% for a few previous seasons).

European manufacturers are most heavily impacted by the escalation of energy costs. Italian operators are also being hindered by lack of available or experienced staff. They are also reporting that the 'bottleneck' in the wool supply chain has well and truly shifted from first stage to second stage with the availability of spindle space (spinning) now slowing the speed of cloth/garment production.

Much of the shipping issues to China have settled and container pricing has basically returned to pre-COVID levels. The situation to India and Europe is also slowly improving, but costs remain prohibitive.

Average monthly EMI comparison

The chart opposite provides a snapshot of how the AWEX monthly Eastern Market Indicator (EMI) and a range of microns have performed for the past three months (August 2022 – October 2022) in Australian dollar terms compared with the previous five years August 2017 to July 2022 (circles) and the decade previous to that, August 2007 – July 2017 (squares).

At the end of the last sale in October 2022, the EMI was about 52% higher than it was compared to the low point in September 2020 during the depths of the COVID pandemic. Up until the past few months, the market during the past year and half had been characterised by relative stability compared to what had been seen in many previous years.

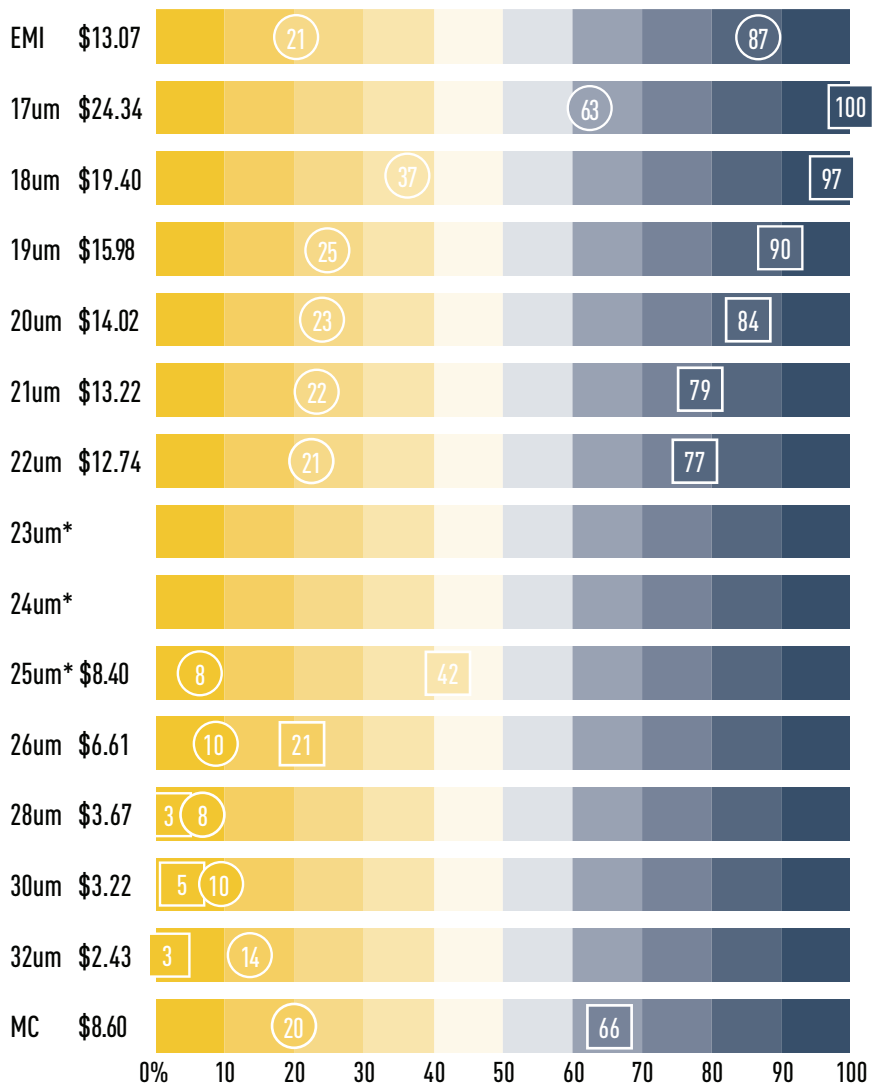
However, during the past three months, the monthly EMI averaged at \$13.07 which is a 91c decline from the average monthly EMI for the previous three months, and is tracking at the 21st percentile against the previous five-year monthly EMI. This means that in the previous five years the monthly EMI has recorded a lower price than the current \$13.07 (August 2022 – October 2022) for 21% of the time.

While the EMI is tracking at the 21st percentile over the previous five years, it is tracking at the 87th percentile when compared to the decade August 2007 – July 2017. This means the current EMI of \$13.07 (August 2022 – October 2022) is higher now than it was for 87% of that decade.

18 micron averaged at a monthly value of \$19.40 (37th percentile for the previous five years and 97th percentile for the decade before that), 21 micron averaged at \$13.22 (22nd percentile for the previous five years but 77th percentile for the decade before that), and 28 micron averaged at \$3.67 (8th percentile for the previous five years and 3rd percentile for the decade before that).

For the past three months, Merino Cardings averaged at \$8.60, operating at the 20th percentile for the previous five years and at the 66th percentile for the decade before that.

AVERAGE MONTHLY EMI FOR AUGUST 2022 – OCTOBER 2022 COMPARED WITH
 ● PREVIOUS 5 YEARS AUGUST 2017 – JULY 2022
 ■ THE DECADE AUGUST 2007 – JULY 2017



*insufficient data

Market intelligence at wool.com

An important part of AWI's Wool.com website is market intelligence information for woolgrowers.

As well as the Weekly Price Reports and Monthly Market Intelligence Reports, there is a graphical display of:

- Eastern Market Indicator – you can select to display AUD, USD, CNY or EUR.
- Offering – displays bales offered and bales sold.

- Currency movements – you can select to display AUD/USD, AUD/CNY or AUD/EUR.
- Forecast of bales sold – displays previous season, current season, current week and forecast.

For the first three categories above, you can select to display data from 3 months to 3 years ago.

AWI also continues to send wool prices and market intelligence direct to about 6,700

woolgrowers' mobile phones. If you would like to subscribe to the free SMS service, visit www.wool.com/subscribe where you will be asked to input your name

and the mobile phone number to receive the SMS. You can unsubscribe from the service at any time.

More information
www.wool.com/marketintel

Will formalwear weather the winter energy storm?



AWI Global Strategic Advisor,
Peter Ackroyd.

The media over the summer in the UK (and to a lesser extent, the rest of Europe) has been full of nautical and aeronautical references to what promises to be a winter of discontent like no other, as energy costs spiral and inflation pushes towards 1970s' levels of 10% plus. 'Headwinds', 'turbulence', 'choppy waters', even 'tidal waves' are words frequently used by the serious and less serious media to forecast impending catastrophes as UK and European domestic and corporate consumers await the 'meteorite' heading their way.

Will this put the brakes on the surge in 'revenge' buying that has seen a welcome and significant reversal of misfortune that bedevilled mainly worsted weavers in UK, Italy, Turkey and China during the darkest days of the COVID pandemic, when Merino woven business for sleeved apparel slumped by anything from -50% to -70%? Previous reports illustrated the plight of several UK Woolmark licensees usually weaving 1.1 million metres per annum, down to 350,000 metres at the height of the pandemic.

These manufacturers are now back working at full capacity when, ironically, the labour market is probably as tight as it has been since the dark days of the 1970s. The harvest is indeed plenty, but newly skilled

AWI Global Strategic Advisor Peter Ackroyd considers whether the high energy prices and economic woes this winter in the Northern Hemisphere will affect the post-COVID resurgence in the formalwear sector. Mr Ackroyd is a former President of the International Wool Textile Organisation and is Chief Operating Officer of the Campaign for Wool.

workers are painfully few.

In London, signs of a slowdown in the post-COVID formal and semi formal market are, to date, few to non-existent. John Lewis, the retail barometer of middle England, reports an unprecedented +60% surge in suit sales and, perhaps even more encouraging, a +75% increase in women's blazer sales... a growing trend in tailored Merino women's wear across Europe and North America. These welcome signs that consumers are casting off all the tedious trappings of lockdown life are accompanied with some more, often amusing, retail figures released in the recently published John Lewis *How we shop, live and look* report that recorded a -68% drop in jigsaw puzzle sales, a slump in sales of foldable desks and, the joyous news that sales of ghastly 'life in lockdown loungewear' velour tracksuits had fallen by -60%. It will perhaps come as no surprise that sales of ladies' 'occasion' hats rose by +168%, given the inordinate number of weddings and outdoor festivals taking place over the summer across the Northern Hemisphere.

A recent survey carried out on London's Jermyn Street, revealed robust autumn activity at middle to upper market men's wear specialists Moss, Charles Tyrwhitt, Hawes & Curtis, Roderick Charles and the more up market New & Lingwood, as suits and jackets, more often than not with weavers' woven labels (British and Italian) attached to the sleeve, were selling at well above pre-pandemic levels. Suit prices, sold mainly as optional jacket and trouser separates, were averaging around £480 (AU\$820). Weavers hope significant new fabric orders for the Northern Hemisphere autumn/winter 2023/24 season will be forthcoming in the new year in the aftermath of robust retail sales at brick and mortar stores this season.

There are a couple of looming problems, however. Recently announced European worsted fabric price increases of +25% for delivery in eight months' time will hardly bring back the stability the market so desperately needs. Some cold comfort

can be taken from news that price increases in the polyester industry are in line with, if not more severe than those in the wool industry... and the finger points firmly at rising energy costs.

Recent news of the shenanigans of landlords on London's Savile Row who want to turn part of the street into a rich man's amusement park with cafés and 'interactive experiences', provoked a sharp reaction from the long-established bespoke houses, who, in challenging change on the Row, revealed in press interviews that business was actually booming like never before. Attempts to order a suit from one of the houses confirmed an all too familiar six-month lead time.

Did reports that bespoke tailors Henry Poole, Dege & Skinner, Huntsman, Anderson & Sheppard and Richard Anderson were 'pulled out of the place', inspire Frasers Group, run by Mike Ashley's son in law Michael Murray, to consider bidding for beleaguered Gieves & Hawkes, owner of the freehold of No1 Savile Row? The group has a record of buying distressed businesses and has added Evans Cycles, Agent Provocateur, Game, Sofa.com and Misguided (bought out of administration for £20 million) to its growing collection of brands and has recently made an offer for MySale, the AIM-listed Australian online retailer. Murray is said to want to use the MySale 'flash sales' website to increase growth in Australia and New Zealand and as a medium for clearing end of line stock.

Of current particular interest is Frasers' recent raise in its stake in Hugo Boss, said to stand at €900 million, around 5% of the company's total share capital. As owners of the up-market fashion retailer Flannels, an important Boss customer in UK, Frasers seems determined to secure a dominant position in the accessible luxury men's and women's wear market. Let us see if No1 Savile Row is added to the expanding portfolio, a move that would help confirm the all-important formal sector is on the road to recovery and relatively secure for the foreseeable future.



WIN!!!

If you email or tag a photo that gets published in Readers' Photos, you'll receive from us a paperback copy of the Kondinin Group's *The Story of Wool*.

Readers' Photos!

Have you got any interesting photos that you'd like to share with other readers of *Beyond the Bale*?

If so, please email the image and a brief description to the editor of *Beyond the Bale* Richard Smith at richard.smith@wool.com, or you can tag us #beyondthebale on Instagram.

If you email or tag a photo that gets published in Readers' Photos, you'll receive from us a paperback copy of the Kondinin Group's *The Story of Wool*.



CHECKING THE MOB

Beau Mullin (@beaumullin007) from **King Island, Tasmania**, took this fabulous photo during the only five minutes of sunshine all that day, when he was out checking on a small mob of twin lambing Merino ewes.



HIDE AND SEEK!

Newborn lamb at the Silcock family's Gringegalgon Merinos (@gringegalgon) at **Vasey** in the Western District of **Victoria**. "The one problem with lambing in amongst the red gum regrowth is that whilst checking around them, it at times resembles a game of hide and seek!" said **Clive Silcock**.



A TOUCH OF CLASS

Sheep classer **Bill Walker** sent in this photo of bold crimping 17.8-micron wool from a young home bred ram of his clients **Bill and Annette Cameron** of 'Tinline Park' at **Mount Torrens** in the Adelaide Hills of **South Australia**.



POP AND GRANDSON – THE CYCLE OF LIFE

This photo taken by **Cherie Anderson** of **Wynarka** in **South Australia**, which she titled 'Pop and Grandson – the cycle of life', shows the importance of knowledge being handed down through the generations. "The bond between Pop and his Grandson is so special and hopefully will continue on to future generations. If this little boy goes farming, he will be the fifth generation to farm here. But that choice will be his. Farming is in your heart," Cherie said. This photo won the Meaningful Connections section in the Through the Lens Photo Competition run by the South Australian Seniors Card program. Thanks for tagging the photo #beyondthebale on Instagram, Cherie (@mergie57).



WALKABOUT

Lottie Howard with her favourite sheep, Blackie, at 'Richmond Park' on **Kangaroo Island** in **South Australia**. The photo was sent in by her parents, Wibke and Nathan, and grandparents, Ros and Terry Howard.



MERINO DRESS A WINNER AT HENTY

A body-hugging cream hand crocheted dress with detached hood stole the limelight on the catwalk at the 17th **Henty Natural Fibre Fashion Awards** winning the best crocheted and knitted category for long time entrant **Judy Bond** of **Buronga, NSW**. The outfit is made from superfine Merino wool and was capably modelled by Year 9 student **Mabel Meckiff** of Riverina Anglican College, Wagga Wagga. Judy said the dress was designed as a bridal outfit with the hood or could be worn as an evening gown. Attracting entries from around the nation, the Awards were a highlight of the Country Lifestyle program at the Henty Machinery Field Days in September.

RED SKY AT NIGHT...

Woolgrower and photographer **Tracey Kruger** (@tracey_kruger) of **Croxtton East** in **Victoria** tagged this atmospheric photo #beyondthebale on Instagram. "The rain has stopped and these ewes are in the yards, ready to run into the woolshed for shearing to resume tomorrow. Here's hoping that a red (ish) sky actually IS a shepherd's delight!" said Tracey.



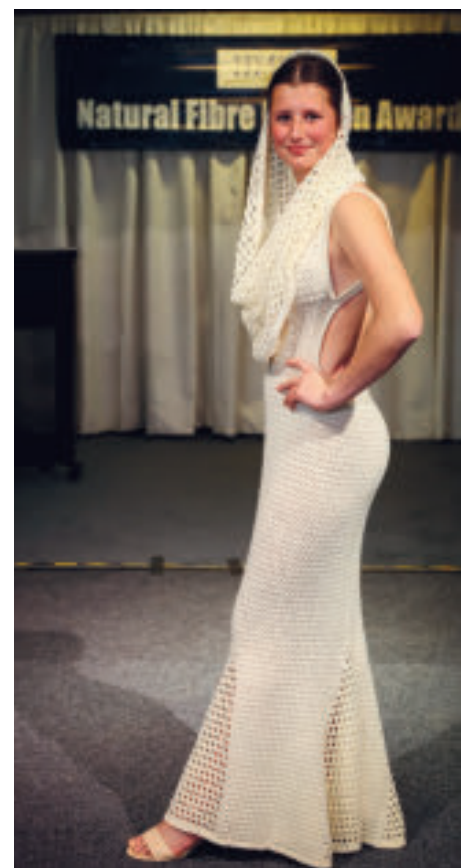
IN THEIR NATURAL HABITAT

"In their natural habitat. Just a girl and her dog hanging out in the shed, making the most of a few moments of peace in the midst of a chaotic day," said **Kim Miller** of **Bingara** near Inverell in **NSW**, who shot this photo. Kim is a keen photographer – check out her work at @surroundingsphotography_au on Instagram.



A VINTAGE SHEARING DISPLAY

John Eddy in his 150-year-old shearing shed at **Moama** in the Riverina district of **NSW**, showing the local vintage car club members how shearing is done. A great night was had by all. The shearing shed and farm has seen five generations of Eddys.



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