Beyond the bale

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Beyond thebale

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FRONT COVER

Wool harvesting is AWI's No.1 priority. In this edition of Beyond the Bale are a selection of articles that provide a snapshot of the work that AWI is undertaking 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. See pages 4 to 12.





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



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AWI INVESTMENT STRATEGIES



Sheep Production



Marketing

Consultation



Industry Development

Market Analytics

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AWI-supported networks are present in each state.

- Sheep Connect NSW
- Sheep Connect SA
- Sheep Connect Tasmania

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- 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.

AWI WORKING FOR WOOLGROWERS



John RobertsChief 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.

Attracting and retaining wool harvesting staff

Wool harvesting continues to be the number one priority that AWI is working hard on. In this edition of Beyond the Bale are a selection of articles that provide a snapshot of the work that AWI is undertaking 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 is looking at the full range of possibilities - from exciting new R&D into biological wool harvesting, to modular sheep delivery units; from shearer and wool handler training courses, to encouraging overseas shearers to work in Australia. Woolgrowers can also play their part in helping attract and retain shearers and wool handlers by providing modern, professional and safe working conditions in their sheds – and AWI has available a range of resources to help woolgrowers do this. See pages 4 to 12 for more information on these AWI initiatives

New breeding for flystrike resistance workshop

Launching next month through the AWI grower extension networks is the new oneday ClassiFly workshop, which is focused on helping woolgrowers breed more natural and profitable flystrike resistance in their flocks. During the workshop, woolgrowers work through incorporating the traits associated with flystrike resistance into their own customised breeding objective and learn how to apply this to their own classing, selection and joining activities to reduce their flock's overall susceptibility to flystrike. ClassiFly is the fourth of six extension initiatives to be released under AWI's Flystrike Extension Program since January 2021 – the Program is designed to support woolgrowers to improve the lifetime welfare of their sheep, reduce their reliance on mulesing, optimise chemical use and crutching, and increase whole farm profitability. See page 23 for details.

China wool industry confident and expanding

In April, I visited China for a productive week in which I met with industry groups and the senior executives of key companies that process Australian wool. It was encouraging to see and hear about the expansion that the Chinese industry has undergone in the past few years, despite the challenges it has faced during the COVID-19 pandemic. A few years ago, only two or three top making plants had the capacity to process more than 10 million kilos; that number has increased significantly. There is an underlying confidence in China and a quiet determination to expand. The people that I spoke with believe that more and more Chinese consumers are going to want to wear wool - there has also been a massive shift in consumer and industry sentiment towards traceability and sustainability, similar to that in other parts of the world. Sustainability is truly a global mega-trend that is here to stay. See page 44 for more insights from my visit.

Reporting the industry's sustainability credentials

The Australian sheep and wool industry's Sheep Sustainability Framework (SSF) last month issued its second Annual Report which provides data on the industry's progress against key sustainability priorities. Sustainability and natural resource management are of course not new to Australian woolgrowers. For generations, woolgrowers have managed their rural businesses effectively while undertaking initiatives to protect the natural environment. However, evidence of sustainable wool production is becoming critical to meeting the needs of increasingly environmentally aware customers. The significance of the framework is around galvanising industry and telling a great story. See page 15 for more details.

Independent review commends AWI's good results

AWI has a formal framework in place that measures and evaluates the returns gained on investments made by the company in R&D and marketing on behalf of woolgrowers and the Australian government. As part of this framework, AWI published in March an independent evaluation of the results and impact of AWI's three-year Strategic Plan for 2019/20 to 2021/22. The independent review concluded: "AWI has achieved a good result for levy payers for the period under review with a Benefit:Cost Ratio of 3.7. At the total spend level (including government contribution) the Benefit: Cost Ratio of 2.8 is a solid result, particularly considering the disruptions caused by COVID-19". The independent report, along with AWI's own six-monthly Program Achievement Reports and annual Performance Reports, are available on the AWI website at www.wool.com/measuring-performance.

PH0T0: Michael Hall

AWI is funding promising research into a new opportunity for biological harvesting of wool 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.



Professor Phil Hynd of the University of Adelaide who is leading the researchers on the biological harvesting project.

any woolgrowers will have heard of Bioclip®, a biological defleecing process developed by CSIRO and made available in the 1990s, which allowed wool to be harvested without the use of a mechanical handpiece. To harvest the wool, sheep are given a single vaccination of Epidermal Growth Factor (EGF) that causes a break to occur in the wool fibres. However, a net has to be placed over the sheep and fleece into which the fleece is shed about one week after the sheep is injected.

It works, but there was little take-up by woolgrowers, mainly because the putting on and removal of the nets from the sheep made it a labour-intensive process.

However, a new AWI-funded project with the University of Adelaide is investigating a new way of biological wool harvesting that enables the fleece to remain on the sheep, without the need for nets, until the wool is mechanically removed.

Chief researcher Professor Phil Hynd of the University of Adelaide says the new project takes a biological approach that is different to Bioclip®.

"Previous attempts at biological wool harvesting concentrated on temporarily stopping wool growth, which resulted in fleece shedding. In contrast, the new approach is aimed at creating a weakened zone of wool

next to the sheep's skin, which enables the fleece to stay on the sheep for several weeks," Professor Hynd said.

"Wool will continue to grow beneath the weak point, so as to protect the sheep from hypothermia and sunburn after the fleece above the weak point is harvested. You can harvest the wool above that weak point for a time after treatment (from say two to ten weeks) that is convenient for the woolgrower.

"Wool does not fall off in the field despite the weak point having very low staple strengths of less than 10N/kTex. While each staple is weak, when combined with others the total force to break them all is relatively high. This is very important because it means that we can now aim treatments to reduce staple strengths to very low levels which will ensure that all treated sheep are harvestable."

"It has been demonstrated that the fleece does not break off the sheep into the paddock under normal grazing conditions"

Professor Phil Hynd, University of Adelaide

A small AWI-funded trial has already been undertaken by the University of Adelaide in which the fleece did not fall off in the paddock under normal grazing conditions for up to ten weeks after the treatment was administered.

Work is being undertaken to determine whether the treatment works on cross-bred and composite sheep as well as Merino sheep. This is because, while the researchers know the treatment will provide a weak point on all fibres that are growing at the time of treatment, a proportion of wool of crossbreds/composites doesn't actually continually grow and can be in a 'resting phase'.

The new project will look at administering the treatment via an injection, rather than via feeding where there is the potential problem of 'shy feeders' not receiving a sufficient 'dose', and also differences in gut function between sheep.

"We are working on a subcutaneous injectable and we believe that we should be able to dial up quite accurately the N/kTex that we require. The injected dose would be based on body weight, in a similar manner to how doses are calculated for drenching," Professor Hynd said.

Mechanical harvesting

The weakening of the fibres is to such an extent that a removal device will break the fibre at the weak point and remove the fleece without the need for cutting equipment. AWI will seek proposals to develop mechanical/automated solutions to harvest weakened wool from engineers and researchers.

The University of Adelaide is already looking at developing a device to harvest the wool in the most efficient and labour-saving way possible.

"We already have a good idea from earlier research of the type of removal device that could work. Our engineers came up with a very simple hand-held device that has a spinning drum with little fingers on it that just break the fibres at the weak point and the sheep doesn't feel anything," Professor Hynd said.

"It can be operated by unskilled labour. They just run the device at pretty high speed across the sheep and the wool just peels off in front of the device. It could be possible to mount a vacuum system on the front of the device which will then suck the wool off away from the sheep.

"The real breakthrough would be automating the process so that wool can be harvested very quickly from large numbers of sheep in a high throughput system with very low labour input."

"It is possible to create a weakened zone of wool and remove the fleece above the weak point using a non-cutting 'wool-breaking' device."

> Professor Phil Hynd, University of Adelaide

Compared to traditional shearing, biological wool harvesting will improve wool quality by eliminating skin pieces, second-cuts (thereby resulting in even fibre length) and creating slightly reduced fibre diameter at the tips. Health and safety issues around sharp handpieces would be eliminated and animal handling injuries could be minimised through the use of upright platforms or conveyor belts.

Next steps

Professor Hynd says the researchers understand the urgency of the wool industry needing an alternative to conventional shearing and they are working flat out to provide one.

"While things look promising, biological harvesting is not a trivial thing to do; people have been trying to do this for decades. But we've made some big steps and I can say to growers that we're confident that this is a good approach, we're confident that we can make a weakened zone in the wool and we're confident that we can get it off without a comb and cutter," Professor Hynd said.

"While there is still plenty of work to be done, we feel excited about the potential benefits that this new method of biological harvesting could have for the wool industry."

Professor Phil Hynd, University of Adelaide

"Now we need to go through the careful methodical scientific steps to make sure that we do it properly and that always takes time. But in 18 months' time, we want to be able prove that our agents will reliably and repeatably create a weak point in sheep – and we will be working towards optimising the dose, optimising the way it's injected, and the form it's injected. By then, our engineers hopefully will have progressed towards a commercial system that will remove the wool.

"We've then got a lot of work to do once it's in a prototype field demonstration stage – for example, we've got to work through body weight types, different environments, different sheep types, check it has no effect on pregnant sheep or general health; so far it looks pretty good, but we've got all that work to do.

"I have a great team working with me on this project including Dr Sarah Weaver who started



Wool fleece after treatment using biological defleecing at the University of Adelaide.

the early work with me on the idea many years ago. We work very closely with the AWI team to ensure we remain focussed on the best outcomes for the wool industry."

Providing options for woolgrowers

The new AWI-funded project continues years of collaboration with the University of Adelaide on this type of research. It is an example of the multi-pronged approach that AWI is now taking to make wool harvesting easier and more cost-effective for woolgrowers and the industry.

"The biological harvesting project is very timely and has the potential to be a game-changer for wool harvesting," said AWI Chairman Jock Laurie.

"It is critically important for the industry because we need to provide growers with new harvesting options. Times of pressure



Dr Sarah Weaver who is part of the University of Adelaide team of researchers.

in industries drive change and that is exactly where we are with the wool industry right now.

"It might not be for everyone, but we need to provide choices for woolgrowers about how they remove their wool efficiently and safely."

Jock Laurie, AWI Chairman

"We have seen enough potential in this project so far to believe it provides a great opportunity for the industry. At this stage, I can say it is very positive and I hope this gives confidence to the industry that AWI will continue to drive and invest in this work."

More information: Hear more from Professor Hynd in Episode 244 of AWI's The Yarn podcast at www. wool.com/podcast





MODULAR SHEEP DELIVERY UNITS PROVETHE RVALUE

One of Australia's largest woolgrowers, Ian Shippen of Banyandah Pastoral Co in the Riverina of NSW, was thankful to use seven AWI modular sheep delivery units late last year when flooding stranded many thousands of his sheep.

an, Camilla, Will, Emma and James Shippen of Banyandah Pastoral Co run a huge self-replacing Merino operation across 105,000 hectares, the majority of which is situated at Moulamein in the Hay Plains of NSW.

The average annual rainfall there is 330mm but in November last year there was unprecedented flooding which stranded many of the Shippens' sheep and put half of their usual shearing sheds out of action. This was terrible timing, with the gigantic annual task of shearing 55,000 grown sheep and 40,000 lambs having only recently begun.

"It was a pretty difficult shearing this one! We were inundated with flood waters that probably only happen about once every 50 years in our country," Ian said.

"We usually shear in about four different sheds, but due to the flooding, we had to truck around 30,000-40,000 sheep. In the end, I rang AWI in desperation saying we had to do something."

Ian says that his dire situation was helped enormously when AWI organised for five modular sheep delivery units owned by AWI, and two more owned by Haynes Engineering, to be made available for him to use.

"AWI got some modular shearing units delivered to us at one of our places that wasn't too badly affected by floodwater. We turned an existing hay shed, sized about 30m x 18m, into

a shearing shed with a set of yards in about three weeks. We cemented the floor and put in seven modular shearing units which worked really well."

The size of the existing hay shed meant that the seven modular units were configured into an 'L' shape, with a fabricator creating a corner to allow the sheep to flow. The Shippens have since shorn approximately 15-20,000 sheep through the system and have confirmed their intention to purchase the modular units from AWI and Haynes Engineering as they now have a fully operational shed at a fraction of the cost of other designs.

"I think the shed ran very well. We hadn't had a lot of time to think about how best to adapt the hay shed into a shearing shed and I'd maybe change a few little things, but conceptually it worked well. We were surprised how it took limited effort to get the sheep to flow up into the race and once in the race they ran well. I was very happy with it," Ian said.

"We had a crew of seven shearers doing about 900 sheep per day. The professional shearers that we had – those who see shearing as a career – they really warmed to the sheep delivery units; they thought it was a fantastic concept. They reckoned it was worth about five or six sheep per run better in their tallies. These are people doing about 35 a run so it was a pretty big increase in production.

"As an industry, we have to embrace innovations like the AWI sheep delivery system because it means less energy used by the shearers."

Ian Shippen, woolgrower

"The shearers also said they felt a lot better and less tired at the end of the week, so they really embraced it. I'm no spring chicken, I'm 57, and I picked up a handpiece a couple of times myself and did it easily. As an industry, we have to embrace innovations like the AWI sheep delivery system because it means less energy used by the shearers."

Ian says that although the flooding combined with the lack of shearers made their shearing a very drawn-out affair this time around, he is a true wool enthusiast who revels in watching his 21-micron Banyandah Pastoral wool clip be shorn and packed into more than 3,600 bales.

"We started shearing in October and it took until February to finish. But a big thank you to AWI this year because we were in all sorts of trouble at the beginning. It was a tough few months, but I am really positive about the future of wool. I think it's a fantastic product and am definitely going to stick with it."

More information: Hear from Ian is Episode 241 of AWI's The Yarn podcast at wool.com/podcast.







Seven sheep delivery units were installed in a hay shed on the Shippens' property last year when flooding put some their usual shearing sheds out of action.

What are the AWI sheep delivery units?



The AWI sheep delivery unit in action. The manual version is featured in this photo; the automatic version is in the photo below.

The AWI sheep delivery units provide 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.

Shearing & Sheep Handling Innovation on display in South Australia



The AWI sheep delivery unit on show at the Shearing & Sheep Handling Innovation & Demonstration Day. The automatic version is featured on the left of the photo.

AWI and PIRSA on 24 February held a Shearing & Sheep Handling Innovation & Demonstration Day at Jamestown in South Australia. It gave woolgrowers a chance to see demonstrations of commercially available options for mobile, upright and adaptable wool harvesting alternatives – including the AWI sheep delivery unit (pictured above) – as well as a range of sheep handling equipment and sheep yards.

The Jamestown event followed the successful Wool Harvesting Innovation Demonstration Days held by AWI last year at Conargo in NSW and at Gairdner in WA. The AWI sheep delivery unit was also showcased in action at Kangaroo Island's Farming Tool & Tech Field Day in early March, which also generated plenty of interest.

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.

The potential benefits for woolgrowers and the industry of the AWI sheep delivery unit include:

- increased attraction and retention of shearers to the industry
- decrease in shearer injuries
- improved productivity for workers
- cost effective option when upgrading infrastructure
- provides an avenue for multipurpose sheds.

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

- Haynes Engineering of Naracoorte SA produces an automatic and a manual modular race delivery system. 08 8762 2744, www.haynesengineering.com.au
- Commander Ag-Quip of Albany WA produces an automatic and a manual modular race delivery system. 1800 655 033, www.commanderagquip.com.au
- Stockpro of Condobolin NSW produces a manual modular race delivery system. 1800 354 415, www.stockpro.com.au
- ProWay of Wagga Wagga NSW produces both fixed and modular manual race delivery systems and provide a full design and construction service incorporating the modules. 1300 655 383, www.proway.com.au
- Kyabram Steel of Kyabram Vic manufactures the manual modular race units. 03 5853 1554, www.kyabramsteel.com.au
- RW Engineering of Darkan WA are developing and manufacturing the sheep delivery system. 08 9736 1166, www.rwengineering.com.au

More information: www.wool.com/sheep-delivery

Kondinin talks sheds, yard design, sheep handlers

A quiet revolution has been taking place in recent years across sheep yards and shed design as well as the rapid development of the myriad of sheep handlers that are now on the market. These are all working to make sheep work easier, but which one is right for you?

Ben White from the Kondinin Group talked through the important considerations with AWI's National Extension Manager, Emily King, at the AWI Sheep Handling Innovation and Demonstration Day in SA recently. Hear from Ben is Episode 242 of AWI's The Yarn podcast at wool.com/podcast.

Professional and safe working conditions in shearing sheds can help woolgrowers attract and retain shearers and wool handlers, as well as improve their productivity and profitability.

Working conditions in sheds are seen as the primary barrier to attracting and keeping new workers in the wool harvesting industry, according to a survey of shearing contractors across Australia undertaken by AWI and the WA Shearing Industry Association (WASIA).

"The message is clear," said AWI Chairman, Jock Laurie. "With so many alternative career options available to young people in Australia, it is vital that the wool industry ensures that working conditions in shearing sheds are as professional as possible to attract and retain wool harvesting staff.

"Woolgrowers can play their part by, for instance, having their sheep properly curfewed and presented for shearing, provide safe working conditions for wool harvesting staff, and also provide a modern and professional work environment with amenities that we as woolgrowers would expect."

AWI has produced a range of resources to help woolgrowers improve their shearing shed and optimise the work environment for their wool harvesting staff – see page opposite.

Jock recently visited Rhodes Pastoral, a large mixed operation based at Dinninup in Western Australia's south-west, that runs 24,000 Merino ewes.

"It was a great example of a shearing team being very happy. They were provided with good facilities and the sheep were in good order – so everything was working well," Jock added.

"Having a very good, strong and long-term working relationship between a professional shearing team and the woolgrower is very important."

Rhodes Pastoral's farm manager

Michael Wright has been the farm manager at Rhodes Pastoral for the past 20 years. In his time there, Michael has seen the business grow from about 3,000 hectares of pasture to more than 16,000 hectares, and the business's wool clip increase significantly from 140 bales of wool to 1,150 bales of wool. Their mature ewes usually cut 6-7kg of 19.5 to 20.5-micron wool.

"We have a great wool harvesting team that's been working with us for 20 years," Michael said

"They live in the town and come out to us each day to shear. We present the sheep well, we have sloping catching pens, and the shed being U-shaped with a raised board helps the team harvest efficiently. All our sheds are well-maintained and have passed the *SafeSheds* program.

"There are amenities for the staff such as decent toilets, shower facilities, a clean kitchen, and air conditioning. The shed is their workplace, so it's got to be a professional environment. It's safe, friendly, with no smoking, drugs or alcohol. We have a good set of rules in the shed that are followed by staff."

Michael is the grower representative on the Western Australia WoolTAG, a body that has a focus on wool harvesting in the state.

"Through the WoolTAG we're trying to showcase wool harvesting as a career not just a job. We want to retain the young people that enter the industry," he said.

"If you are a woolgrower and you want good

harvesting staff, workers who want to come back to your shed, you've got to provide good facilities and a safe shed. It's as simple as that. Poor facilities are just not on anymore; we're in the 21st century."

Rhodes Pastoral's shearing contractor

Aaron and Jazz Piper of Dinninup Shearing Services, along with long-term permanent classer Brett Biluta, have been wool harvesting at Rhodes Pastoral for many years.

"It's a great set-up that Michael has there and so we are happy to keep going back. It's a well-maintained shed; the harvesting staff can walk in there and everything will be clean and ready to go. We know we won't have a problem with broken hinges and grating, that kind of thing," Aaron said.

"It's important that there is a good working relationship between the woolgrower and the shearing contractor and team. Having the contractor visit the farm prior to shearing is always a good idea so that they can work together with the woolgrower to identify and rectify any problems before the shearing team arrives.

"It's not important to the shearing team whether the shed is a new shed. What is important is that the shed is well maintained and is a presentable and safe place to work.

"The shearing shed is our workplace and, as with any other workplace, it must have proper amenities for its workers like flushing toilets and a clean kitchen area. To attract and retain workers, woolgrowers need to make the effort and provide facilities that all other workplaces provide nowadays."



AWI Chairman Jock Laurie and Rhodes Pastoral's farm manager Michael Wright, with wool classer Jazz Piper, AWI director David Webster and shearing contractor Aaron Piper of Dinninup Shearing Services.



Farm manager **Michael Wright** is passionate about nurturing new talent. In February, he hosted a wool harvesting school at Rhodes Pastoral for novice shearers and wool handlers, run by four AWI-funded trainers.

AWI shearing shed safety and design resources

1. SafeSheds shearing shed safety program



SafeSheds is a best practice guide and checklists to help woolgrowers improve the safety and working conditions in their shearing sheds. It is available as an 80-page booklet, while the checklists are also available in a handy digital, interactive format.

SafeSheds is a self-assessment guide and not a formal audit. It 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.

Launched in November 2020, SafeSheds was developed by AWI and WASIA, with the support of industry including WoolProducers Australia, Pastoralists & Graziers WA, WAFarmers and Shearing Contractors' Association of Australia.

2. Shed safety signage kit



The shed safety signage kit for woolgrowers to use in their woolsheds contains 36 safety signs that are printed on UV-stabilised polypropylene for durability, with pre-drilled holes for easy installation. The kit also includes guidance notes to assist in the proper location and installation of the signs.

Developed and produced by WASIA, with support from AWI, these signs meet Australian Standards and legislative requirements in all Australian states and will help woolgrowers meet occupational health and safety obligations.



3. Safety and sheep welfare poster (above)

A 'code of conduct' poster is available from AWI that can help woolgrowers set standards for their entire shearing team – regarding animal welfare, workplace health and safety and the prohibition of drug use. It can be a point of reference for everyone in the shed and help ensure they are all on the same page.

The poster is a joint initiative between AWI, Shearing Contractors' Association of Australia, WASIA and WoolProducers Australia.

4. AWI Shearing Shed Design (below)

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.

5. AWI's shearing shed design considerations guide



Published in December 2021, this 32-page guide was produced by AWI to provide woolgrowers with an outline of considerations when renovating or designing 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/safe-sheds www.wool.com/sheddesign



SIX STAND SHEARING SHED

TECHNICAL DRAWINGS



The purpose of this document 'SIX STAND SHEARING SHED, TECHNICAL DRAWINGS' is to provide woolgrowers with a general shed blueprint.

It is intended that woolgrowers will take this document to a competent builder or contractor who will be able to build as designed, or extract certain elements of the design to suit specific on-site requirements.

For the Arrow Park shearing shed floor plan refer to 'FLOOR PLAN 'ARROW PARK' SHEARING SHED'.

ON-FARM

AWI funds shearing and wool handling training courses 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.

All 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 workers' productivity, skills and professionalism.

Pictured below is a small selection of AWI-funded courses recently run across the country. Many more courses have been run.

There has been a concerted effort to run extra novice and improver training, funded by AWI and several state governments. In Victoria and South Australia, the training is provided by the Shearing Contractors Association of Australia Shearer Woolhandler Training Inc (SCAA SWTI).

All the training aligns with nationally recognised qualifications and are designed to meet industry standards and needs.

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.

More information: To arrange training in your state, email craig.french@wool.com. Keep an eye on the Facebook channels of @australianwoolinnovation and @shearerwoolhandlertraining (Vic and SA) for the latest updates.



Walbundrie, NSW Pandurra, SA Barcaldine, QLD



Novice training courses help to attract the next generation



AWI-funded novice shearing and wool handling training courses provide participants with a solid introduction to the wool harvesting industry and create a pathway for them to obtain ongoing employment. Once a person has completed a novice course, they may be employable as a 'learner shearer' in a commercial wool harvesting operation.

The novice courses are suitable for participants ranging from wool handlers looking to learn new skills in shearing and farm workers wanting to gain experience in shearing and crutching, to those new to the shearing industry. Priority is given to those working in the industry who have an opportunity for a full time stand as a learner shearer. The courses are fully funded by AWI and are offered at no cost to eligible participants.

The live-in courses last for five days and are very practical, shed-based courses taught by leading industry trainers.

Craig French, AWI National Manager, Wool Harvesting Training & Careers Development, says the training aims to make participants job-ready for shed work, thereby helping build the wool harvesting workforce.

"It is a very hands-on course that covers topics like shearing gear, set-up and safety, handling sheep, shearing technique, wool handling, the significance of a good work ethic and camaraderie, and the importance of a quality end-product," he said.

"Throughout the course, participants also get taught all aspects of wool handling, wool pressing and clip preparation to prepare them to go straight into the industry as a wool handler if not a 'learner shearer'.

"But the course is not only about shearing and wool handling, it is also about providing youngsters with life skills, such as the benefits of health and nutrition, personal development and importantly a career pathway."



What do participants learn on the novice course?

Health and safety: First off, the participants are taught about the importance of health and safety in the workplace to ensure that they and other team members are not put in danger. This relates to the set-up of the shearing shed, the shearing equipment, and the work environment and practices.

Animal welfare: Participants are taught about the importance of animal welfare and the high expectations that are expected about the handling and treatment of sheep.

Crutching: After an introduction to the set-up of the shearing handpiece, participants are shown how to crutch. This includes the catch and drag, the correct positioning of the sheep, as well as the best footwork, grip and blow entry, with special attention given to vulnerable areas of the sheep.

Shearing: Participants progress to shearing, with them progressively shown how to shear individual sections of the sheep, such as the belly and the transition from the crutch to the back leg, through to the long blows, and the neck and front shoulder. Once competent at shearing the individual sections, the participants progress to shearing the full sheep.

Tips and tricks: The experienced trainers pass on tips and tricks, such as transition footwork, and the rhythm and flow of shearing. The aim for the participant upon completion of the course is to be able to shear a minimum of 40 adult Merino sheep or 50 adult crossbred sheep per day to an acceptable industry standard.

Handpiece maintenance: Participants are given a thorough understanding of the workings of the handpiece and the downtube for machine shearing, including how to sharpen the combs and cutters, and potential gear problems they might encounter, such as bent or chipped teeth, and how to rectify them.

Wool handling: Wool handling and clip preparation are important aspects of the course. Participants are taught how to identify and sort the different parts of the fleece.

Wool pressing: Participants receive a wool pressing demonstration during which they learn how to cap a bale, brand a bale, as well as replace the wool pack.

Life skills: A very important aspect of the course is the provision of life skills to the participants, who often are not long out of high school. The benefits of nutrition and a healthy lifestyle are discussed, along with frank discussion on the effects of drugs and alcohol. Financial and budgeting skills are also taught. There is an emphasis on what it means to work effectively in the wool industry, with the participants informed about improver courses and career pathways in the industry.

In another initiative to help with the demands of peak wool harvesting periods, Australian and New Zealand training providers have begun working together to ensure consistency of shearing and wool handler training across the Tasman.



Australian and New Zealand trainers swapping best practice training techniques with each other at workshops in New Zealand in February.

An exchange program between Australian And New Zealand shearer and wool handler training providers got under way in February, when a group of Australian trainers visited New Zealand for train the trainer sessions.

The Australian trainers from AWI and the Shearing Contractors' Association of Australia (SCAA) Shearer Wool Handler Training Inc were hosted by New Zealand's Elite Wool Industry Training (EWIT). Like the Australian training providers, EWIT has a strong group of trainers, all very consistent with the way they deliver training. The visit was very encouraging with good discussion on the best pattern to shear crossbred and composite sheep.

The New Zealand trainers then had the opportunity in April for a return visit to Australia for a trainers' workshop, held near Inverleigh in Victoria, at which AWI and SCAA trainers assisted the EWIT trainers in how best to shear Merinos and how training is delivered to new entrants in the Australian industry.

A number of New Zealand contractors also joined in on the sessions to see first-hand the effort being made to standardise the countries' training systems and, from this, leverage the flow of staff during peak periods in both nations.

Attracting and retaining wool harvesting workers

The exchange program followed the signing of a joint Memorandum of Understanding (MOU) between the training bodies of Australia and New Zealand last year, in response to the global shortage of shearers and skilled wool handlers

AWI's National Manager, Wool Harvesting Training & Careers Development, Craig French says both trips were very constructive and provided the Australian and New Zealand organisations with a foundation to work together in a manner that will benefit the wool industries in both countries.

"Our two trans-Tasman nations are now collaborating and working towards the common goal of attracting, training and retaining wool harvesting staff, and providing consistent messaging and skills for new entrants to wool harvesting," Craig said.

"Working and collaborating on standardising training techniques and delivery will eventually help the flow of shearers and wool handlers between the two countries and alleviate, to some extent, the seasonal staffing pressures felt by contractors in both countries."



Young shearers and wool handlers from Australia visiting New Zealand in February.

Shearer and wool handler exchange

The exchange program also recently involved a group of 12 enthusiastic young shearers and four wool handlers from NSW, Vic and SA visiting New Zealand in February.

A two-day advanced crossbred course and then placement for four to six weeks with contractors in the Otago region helped to take the strain off a busy part of the New Zealand shearing season. The feedback has been very positive, with the group saying they have all learnt a lot and their careers will be better for the experience.

The group also then had the opportunity to compete in the Golden Shears shearing and wool handling championship in March at Masterton. All did very well, with two outstanding first place ribbons in the Junior Shearing category (Tyron Cochrane from Goodooga in northern NSW) and Junior Wool Handling category (Abby Curnow from Laanecoorie near Bendigo in Victoria).

A group of New Zealand shearers and wool handlers will visit Australia in spring to attend an AWI workshop on shearing Merinos to ensure quality of work and set them up in the industry. After the workshop, the New Zealanders will work with a range of Australian contractors for the busy spring season.

"The work in New Zealand dries up in late spring, so it is important we try to capitalise on this and encourage their wool harvesting staff to work here in Australia. The plan is to make this exchange very successful so more New Zealand shearers want the training and when they work in Australia their shearing pattern and technique will align with Australian conditions and requirements," Craig added.

VIGILANCE NEEDED TO 'KEEP THE CLIP CLEAN'

Woolgrowers can help preserve Australia's reputation for producing a quality clip by being vigilant about preventing contamination. Contamination can be a major issue for wool processors and can attract discounts if it is identified prior to the clip's sale.



An example of a shirt found in a processed batch

The Australian wool clip is recognised worldwide for its high quality. However, to maintain this good reputation, it is important that Australian woolgrowers continue to be committed to preventing any contamination to their clip during the wool harvesting operation.

Examples of contamination include non-wool items, such as drink cans and clothing, that are inadvertently added to the wool bale in the shearing shed. However, contamination also includes wool that has urine/dung or other stains, or wool with dark and medullated fibres. These can be a costly issue for wool processors and can also cost woolgrowers discounts if they are identified prior to the wool's sale.

At a recent meeting of the China Australia Joint Working Group, China raised the issue of clip preparation and contamination being found in Australian wool bales.

AWI CEO John Roberts says the confidence of wool processors in the quality of Australian wool is of paramount importance to the industry.

"Individual woolgrowers and wool harvesting workers can help preserve Australia's reputation for quality wool by being vigilant about preventing contamination through careful clip preparation. This will not only reduce the possibility of a discount on the price that individual woolgrowers receive, but will also help ensure that more general discounts are not incurred across the whole auction system," John said.

"The Australian wool industry is committed to ensuring that its wool harvesting workers are able to do their jobs in a professional manner, by providing valuable training to new workers it attracts into the industry and through ongoing training of existing staff."

Woolgrowers should discuss strategies to prevent contamination with their wool classer and contractor before shearing.

Non-wool contaminants

Hard contaminants can cause major machinery breakdowns. The most common hard contaminants found in pressed bales of wool are combs and cutters, screwdrivers, bale fasteners, bale hooks, small tools and drink cans. Hard contamination is the easiest type to detect and care must be taken to ensure they do not end up in the bale.

The major soft non-wool contaminants include dog hair, clothing, towels, grease rags, general rubbish and vegetable matter. Any polypropylene products – baling twine, old wool packs and fertiliser bags – are a particular problem.

When wool is processed, any non-wool fibres will break up into many single fibres that spread throughout the processing batch. These fibres can only be removed by hand picking in the fabric stage at great cost to the manufacturer. The entire wool batch being processed – up to 10,000 kg – can be affected by one small piece of baling twine.

Wool contaminants

Wool contaminants include urine/dung and other stains. Stain is discolouration that has combined with the structure of the wool fibre. It is permanent and cannot be removed by scouring. The intensity of the stain determines the dye colour needed to over-dye the stain, limiting its end use and reducing the value of the greasy wool. The risk of contamination from urine stain can be greatly reduced by crutching sheep, ideally within three months of shearing.

Dark and medullated fibres in wool also affect processing performance and the quality of the final product. Only small amounts of dark and medullated fibres are needed to contaminate wool. Just one staple of dark wool in one bale of white wool is sufficient to prevent that wool being used for light-coloured cloth or yarn. Medullated fibres are hollow and do not take up dye, are very coarse and appear as white fibres in dyed garments.

Tips to eliminate contamination in the shed

- Store tools, clothing, towels and shearing gear and bale branding supplies away from wool handling areas.
- Remove all poly products found.
- Never use fertiliser bags as bulk class bale dividers.
- Keep the wool press area, wool room, shearing board and sheep pens clean.
- Don't eat in the wool handling areas.
- Use rubbish bins.
- Don't let dogs camp in the wool
 areas
- Any dark breeds or shedding breeds must be kept completely separate from Merinos and be shorn after all the Merinos are shorn.

ONE INDUSTRY eSPECINOW A REALITY

AWI and AWEX have worked together to incorporate AWEX's WoolClip into WoolQ, making WoolClip the single electronic specification for the Australian wool industry.

WoolQ enables growers and their business partners to connect and share data and information. An important feature of WoolQ has been an electronic specification which was an alternative to the paper specification.

For several years, AWEX has had its own, separate electronic specification, known as WoolClip. However, to eliminate duplication in the industry, AWI and AWEX have worked together to connect the WoolClip electronic specification into WoolQ to provide the industry with a single electronic specification.

By integrating AWEX's WoolClip with WoolQ, woolgrowers can now fill-out their speci on WoolClip and will have the option of their data flowing through to their WoolQ account. This represents the start of the wool data journey and opens up opportunities to showcase Australian wool-growing to a global audience.

A single electronic specification for the industry will be a critical piece of software. Not only will it store 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," said AWI CEO John Roberts.

"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. 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 and now with the introduction of eBale (unique Bale-ID), improved traceability is not only possible but an imperative."

The two companies have now developed a much closer working relationship. AWEX with its strong connection to classers, coupled with AWI working with and for woolgrowers, offers a unique opportunity to leverage each other's strengths. AWI and AWEX are collaborating on promotion and education of the benefits of a digital data journey, to increase adoption for the benefit of all industry participants.

More information: www.woolq.com



SHEEP SUSTAINABILITY FRAMEWORK

REPORTING THE INDUSTRY'S SUSTAINABILITY CREDENTIALS

PHOTO: Southern Lightscapes-Australia

The Australian sheep and wool industry's Sheep Sustainability Framework (SSF) last month issued its second Annual Report which provides data on the industry's progress against key sustainability priorities. The SSF was initiated in 2021 by Australia's sheep industry leaders to demonstrate the industry's sustainable practices, identify areas for improvement, and better communicate with customers and consumers.

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.

WoolProducers Australia and Sheep Producers 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:

- 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.

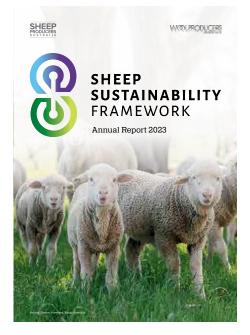
The performance of the sheep industry in these areas, tracked over time, will provide evidence of the industry's commitment to continuous improvement. It will demonstrate that Australia has a clear path towards sustainably produced sheep meat and wool.

"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.

What is the industry's progress?



The SSF last month launched its second Annual Report which reported data on industry progress against key sustainability priorities. The task of building a complete framework where every indicator has both metric and data is progressing well, with 91% of SSF metrics now having supporting data.

More information:

www.sheepsustainabilityframework.com.au

This second Annual Report provides second or third data points for half the metrics, whilst for some others it provides the baseline (starting) value. The top-level results of the recent National Producer Survey, commissioned by AWI and MLA, were included as baseline data in the SSF Annual Report. This data about 2021 on-farm production practices primarily covers animal husbandry, but also other topics such as renewable energy use and succession planning.

Many of the indicators where there has been directional improvement have been in the areas of animal health, care and handling.

"It is very encouraging to see the maturing approach by all parts of the sheepmeat and wool value chains to meet the need for our industries to be more transparent on the issues of importance to those we provide with food and fibre," said Chair of the SSF Board and livestock producer Lucinda Corrigan.

Chair of the SSF Steering Group, Dr Scott Williams, says the past year has been busy for all involved in the SSF and included the first Consultative Committee meeting and the first Industry Forum.

"The Consultative meeting in October brought together a wide range of 55 stakeholders. It provides a valuable forum through which we can have a conversation with our customers and community. The Industry Forum, which comprised 50 internal stakeholders in March, ensures ongoing engagement and ownership of the SSF by the sheep industry," he said.

Data Status Key and 2023 Progress Summary

			% OF INDICATORS WITH THIS STATUS IN 2023
	Directional Improvement	•	28%
Second and third wave data	Holding Steady		11%
wave data	Directional Decline		11%
	Baseline Data Point	*	41%
	Indicator, Metric or Data to be identified	Q	9%

AGMINISTERS: eID FOR **SHEEP BY 1 JANUARY 2025**

In an initiative aimed at improving livestock traceability and biosecurity, Australia's federal and state agriculture ministers last year resolved that the sheep and goat industries will transition towards nationwide mandatory electronic identification (eID) by 1 January 2025.



Ruby Woodlock of Forbes tagging two-week old lambs with eID in April at Lachlan Merinos in NSW.

Recognising that emergency animal diseases, such as foot and mouth disease, represent an increasing and major threat to Australia's livestock industries and export markets, Australia's federal and state agriculture ministers have committed to work with industry to introduce nationwide mandatory eID for sheep and goats.

An eID device, which is generally in the form of an ear tag, contains a microchip that relates to each individual sheep or goat. The eID can be scanned and linked to information recorded into the National Livestock Identification System (NLIS) database, thereby enabling the traceability of an individual sheep or goat.

Just like with the current system, all that will be required of sheep and wool producers is to purchase tags (now the eID tags) and a tag applicator. However, if producers are buying in sheep or transferring from one PIC to another, the sheep will need to be scanned using a wand /tag reader and the data uploaded onto their PIC in the NLIS database.

Victoria already has mandatory eID for sheep and farmed goats, requiring that they must be identified with an eID tag before they leave their property of birth.

The Federal Government has committed \$20.1 million for co-investment with states and

territories to support industry eID transition and on-farm and off-farm traceability. A new government-industry National Sheep and Goat Traceability Taskforce has been established to oversee the national roll-out of eID for sheep and goats.

State implementation plans

Details of the transition to eID are currently being developed by government and industry in each state.

The NSW Department of Primary Industries released its implementation plan in December 2022. It includes mandatory:

- processor scanning from 30 June 2024
- saleyard, depot and property to property scanning from 1 Jan 2025
- tagging of all sheep/farmed goats born after 1 Jan 2025
- tagging for all movements of sheep and farmed goats leaving the property from 1 January 2027.

To date, the **WA** government has announced \$25.6 million to support the introduction of mandatory eID for sheep and goats in WA. The funding will include new scanning infrastructure at saleyards and other key

livestock congregation points. It also includes a \$0.75 reduction on the price of fully accredited sky blue eID tags purchased via participating manufacturers until 30 June for the 2023 lamb and kid drop.

At the time of writing, South Australia, Queensland and Tasmania are yet to announce their implementation plans.

Are there productivity benefits of eID?

Although mandatory eID is being introduced so that animals can be traced quickly and more easily during a disease outbreak, eID can also provide on-farm productivity benefits for sheep producers. Many producers across the country already use eID as a management tool.

Identifying the level of production (eg fertility, weight, wool traits) and the return that each individual animal contributes to their business can enable woolgrowers to make more informed decisions when it comes to culling and breeding, thereby increasing profitability.

However, using eID for individual animal management is optional. The decision to purchase, for instance, a tag reader and equipment for drafting and weighing is up to each producer based on preference and capability.

More information:

- Australian Government's Sheep and Goat Traceability Task Force: www. agriculture.gov.au/biosecurity-trade/ policy/partnerships/nbc/sheep-and-goattraceability-task-force
- NSW Department of Primary Industries: www.dpi.nsw.gov.au/animals-andlivestock/nlis/sheep-and-goat-electronicidentification
- WA Department of Primary Industries & Regional Development: www.agric.wa.gov. au/livestock-movement-identification/ electronic-identification-sheep-and-goats
- The Sheep's Back (AWI's WA state network): www.sheepsback.com.au/ tools/182
- Livestock SA: www.livestocksa.org.au/eid
- Agriculture Victoria: www.agriculture.vic. gov.au/livestock-and-animals/nationallivestock-identification-system



An updated guide to sheep diseases provides an overview of how sheep producers can identify, treat and prevent disease in their flock. The handy guide to 44 diseases and conditions has been produced by PIRSA and is available to producers across the country.



The 76-page Sheep Diseases – The Farmers' Guide is designed as a quick-reference tool to help farmers take action when faced with a broad range of sheep diseases on the farm.

For each of 44 sheep diseases and conditions, the guide provides an overview of signs, symptoms and diagnosis, as well as treatment options and prevention. The guide also provides a handy key to disease diagnosis by signs and symptoms, and a separate key to diagnoses by season. It also provides a key to poisoning or toxicity by plant.

Management advice is also included on issues such as good biosecurity, vaccination, grain introduction, NLIS obligations, and fit to load responsibilities.

Printed and digital resources are referenced throughout the guide to assist sheep producers with further, more detailed reading on a number of sheep diseases, conditions and best practice guidelines.

Now in its fourth edition, the guide was updated last year by the Red Meat and Wool Growth Program of the South Australian Department of Primary Industries and Regions (PIRSA). AWI is involved in the program through AWI's Sheep Connect SA grower network.

Although the guide has been produced for sheep producers in South Australia, it is suitable for sheep producers in all states of Australia.

More information: Download a copy from www.pir.sa.gov.au/biosecurity/animal_health/sheep

REMEMBER! Serious animal diseases must be reported. Early reporting provides the best chance to contain and manage an outbreak before it spreads. If you notice any serious or unusual signs or symptoms with your animals, you can:

- call the 24-hour Emergency Animal Disease Hotline on 1800 675 888
- contact your local Department of Primary Industries
- contact your local veterinarian.

FLY OR LICE PROBLEMS?

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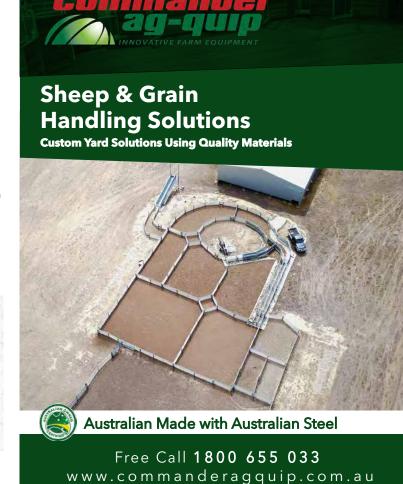
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Sheep lice are an insidious and costly pest. If your flock has them, it is important to find them early and treat to reduce their impact. Read on for an overview of managing lice, from inspection to treatment.



To look for lice, use good light and put your glasses on!

There are a few things you should consider about lice that will help you combat them if you have them in your flock. Lice are host-specific, meaning they will only breed on sheep. They may pass to other species but will not reproduce. This is because sheep lice prefer to eat cells of the sheep's skin and have a claw size ideal for grasping the wool fibres of sheep.

Lice are very sensitive to the environment, especially sunlight, temperature, and humidity. This makes them easy to kill, but hard to eradicate as they breed in very large numbers and as they live at the base of the fibre it can be difficult to reach them with some chemical applications. Although lice prefer to live at the base of the fibre, they will migrate up in order to regulate temperature. If sheep are yarded, they may become hot, which encourages the lice to migrate up the tip of the fibre and transfer onto other animals. Lice can also persist for up to two weeks off sheep when the environment is conducive, eg within shorn fleeces and shearers' moccasins.

The lifecycle of lice has some important features that should be kept in mind when planning control programs. Interestingly, lice have a long life cycle of between 34-36 days and they have proven to be quite efficient breeders. The implication of a long life cycle is that once lice are seen in a flock it means they were introduced anywhere from 2-6 months previously. So, the neighbour's sheep that broke through the fence last week are probably not to blame! As a result, it is important to consider what happened on-farm 2-6 months prior to when you first see lice.

Sheep lice cause irritation to the flock as their biting leads to the sheep scratching, rubbing and damaging their fleece. This also predisposes some animals to flystrike. Other production losses, such as reduction in fleece quality and quantity through fleece derangement, cotting and discolouration, can also be experienced.

Identifying lice on sheep

If your sheep are rubbing, how can you be sure lice is the problem? Inspect, inspect, inspect!

Lice are small, about 2-4 mm in size, but are visible. When inspecting sheep for lice, it is important that you can see them clearly. If you use reading glasses normally then use them when inspecting your mob. Also, adequate light is essential – outside on a sunny day is ideal and as an added bonus, lice don't favour light so they wriggle around making them easier to detect.

It is important to inspect a number of sheep (preferably those that are rubbing) and undertake 20 partings per side of each sheep. By counting the number of lice and their maturity per parting you will get more information about your infection. Large numbers of adult lice will indicate an older infection, while a number of juveniles indicates a new infection.

Treating sheep for lice

As mentioned previously, lice are easy to kill but hard to control. It is estimated 70% of properties fail to eradicate lice with a single treatment. Failure can result from a number of sources such as missed muster, failure to treat new acquisitions, and split shearings.

Regardless of the method you use, the best time to control lice is off-shears (in short wool). This is because shearing removes most of the lice and exposes the remaining lice to sunlight which will kill them. Short wool also enables maximum chemical penetration. Follow label directions for each product and bear in mind that dips can only be used 2-6 weeks off-shears due to the risk of wound infection of shearing cuts if used earlier.

It is vital to treat every sheep at the same time. This includes the kids' pets and rams. Remember not to mix treated and untreated mobs. Ensure all sheep are treated correctly. If you miss just one, all sheep can potentially be re-infected.

The gold standard for eradication is plunge or cage dip. Backliners are known to be easy and efficient, but in reality they are difficult

to apply correctly. This frequently results in failure to eradicate. Regardless of the application method, it is important to rotate chemical groups – not just product names, but the chemical group within a product. It is important when using an abamectin product for lice control (eg Maverick, Fennec) that you use a different chemical active for controlling worms at the same time.

On a special note, ParaBoss is thrilled to learn about the new development of the world's first oral product for managing lice in sheep being registered in Australia. ParaBoss will be reviewing and making necessary updates to the LiceBoss website content to factor in this new product for when it is available.

More information: www.liceboss.com.au and access the following tools at www.liceboss. com.au/tools:

- Sheep Rubbing Tool allows you to determine the cause (or causes) of rubbing in your sheep
- Lice Treatment for Breeding Ewes and their Lambs – suggests the type of treatment for the ewes and considers whether their lambs may also require treatment.
- LiceBoss Treatment Decision Guide

 helps you determine the source
 of your infection on farm and gives
 recommendations on treating your flock.
- Short Wool Lice Tool helps you to assess whether sheep should be treated after shearing.



paraboss

Tap into best practice parasite management

www.paraboss.com.au

Collectively, the three Boss sheep websites – LiceBoss, WormBoss and FlyBoss – promote best practice for the management of sheep parasites Tune in to a recent recording of a ParaBoss webinar about dung beetles and discover how these fascinating creatures can help you in the war against parasites on your property. Learn top management tips to increase dung beetle stocking rates, which is especially important right now given recent flooding has reduced their population.

Dung beetles play a valuable role in Australia's grazing ecosystems, benefiting farmers' production systems leading to greater profit. For example, the beetles have a positive impact on nutrient recycling by taking dung and its nutrients down into the soil for pasture to access; they aerate the soil which increases water infiltration; and they reduce the runoff of dung into waterways.

In addition, Dr Russ Barrow and Paul Meibusch of EcoInsects detailed in the webinar how dung beetles can help suppress pest and parasite populations by interrupting the life cycles of flies and nematodes.

"The Australian sheep flock produces about 50 million tonnes of dung each year, in addition to the 237 million tonnes produced by beef cattle. That is a lot of dung and without dung beetles to help clear it from pastures, it is a breeding ground for flies and other pest species such as nematodes," Dr Barrow said.

"If there are dung beetles on hand to interrupt the dung mass – where the eggs, the juvenile stages or the larvae of the flies and nematodes are present – then there is the capacity for the dung beetles to stop them developing further, thereby suppressing the levels of parasites or pests re-infecting and continuing their life cycle."

Dung beetles and their larvae don't do any damage to pasture or other foliage, they just eat dung.

Dr Barrow says the easiest way for a farmer to determine if and how many dung beetles they have in a paddock is to scoop up the sheep's pellets or dung with a little bit of the soil from underneath and drop it into a bucket, then fill it with water.

"This is called a flotation method, and about 95% of the beetles will come to the surface within a couple of minutes. Throw the beetles into some clean water to clean them so you can identify them properly; dungbeetles.com. au has a lot of high-resolution photos to help you. It's useful to keep a record of which type of beetles you are finding in which month.

"There can be large differences in dung beetle abundance and diversity of species even across short distances, such as across a single property".

What can affect dung beetle populations?

Dr Barrow says there are four factors that affect dung beetle population levels. The first factor is **flooding**, which causes dung beetles to drown.

"Unfortunately, we live in a relatively flat country and vast areas of NSW, Victoria and South Australia have recently been inundated across massive areas for an extended period of time. This has resulted in a severe depletion in dung beetle numbers, which without assistance will take decades to recover," he said.

"However, topography is the beetles' friend. Even when there's flooding, if there are rises on your property then some of those beetles will survive and they can be used to repopulate the pastures."

The other natural cause of beetle depopulation is drought because this is when livestock producers destock, resulting in less or no dung which leads to starvation of the dung beetles. "There is no solution to this apart from restocking the dung beetles," Dr Barrow said.

Similarly, the type of land use affects the dung beetle populations. "If you're doing broad scale cropping and there are very few sheep or cattle in that system then you'll have very few dung beetles. It'll need management in order to reintroduce them."

Dr Barrow says that **veterinary chemicals** have a major impact on the abundance and diversity of dung beetles existing at an optimal level on your property, with some chemicals being more toxic than others. See the next section.

Effective use of veterinary chemicals

Dr Barrow encourages producers to do a worm egg count to determine if there is a need to drench their sheep.

"For the small cost of getting a worm egg count done, you might be able to save yourself large amounts of dollars by not needing to buy the veterinary chemicals, and saving even more dollars because you won't have been impacting the dung beetle population which is providing ecosystem services and benefiting your production systems," he said.

"We're not saying you don't need to drench; sometimes you will have to drench. We're just trying to encourage you to ask the question 'Do I need to drench?' and you can find that out by doing worm egg counts."

Dr Barrow says that, if you do need to drench, then drench, but the question you must ask becomes 'What drench should I use?'

"Some chemicals are more toxic than others. If there are very few beetles around then use a drench which is perhaps more toxic because few beetles are going to be impacted. Conversely, if there are a lot of beetles around, be wary about treating them with a toxic drench because you're going to kill many beetles in your paddock.

"Also keep in mind that dung beetles aren't uniformly abundant across seasons in Australia. In general beetles aren't as present in high numbers in spring as they are in autumn. But this changes for different locations, so you really need to consult with an expert to get the right information.

"Likewise, it is advisable to consult with an expert about stocking or restocking your farm with dung beetles, so that that you get the right information about what beetles are suitable for your production system.

"You can contact us at EcoInsects if you want to know more about dung beetles, whether that be identification, or information as to where to get them from, and what's going to work best on your property."

The webinar presentation, titled 'Dung beetles – are you managing your smallest livestock?' lasts for 30 minutes followed by a useful 40 minute Question & Answer session.

More information:

View a recording of the webinar on the ParaBoss YouTube channel at www.youtube.com/@paraboss3901

www.wool.com/land/soil/dung-beetles

www.ecoinsects.com

www.dungbeetles.com.au

The table opposite includes welfare and production ASBVs sorted by fibre diameter and wrinkle – including fleece rot and wool colour.

urther to a similar article to this one in the December 2022 edition of *Beyond the Bale*, feedback was received about adding in fleece rot and wool colour to the table (see opposite).

There are concerns that by selecting for lower breech wrinkle this can lead to increases in fibre diameter and thus increases the risk of more wool colour, more fleece rot and thus more body strike.

Table 1 opposite was created by analysing results from 1,748 sires with 2020 drop MERINOSELECT progeny with a breech trait ASBV. The table 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 categories increase in fibre diameter, 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 five 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 and care is needed with the low numbers of sires within each of these wrinkle percentile ranges. The other micron categories have larger numbers from 185 to 630 sires in total and from 37 to 126 sires in each wrinkle 20 percentile range.

The trends can often be different across the six micron categories (across Merino type) compared to trends within a micron range (within Merino type). Within most of the six fibre diameter categories, as wrinkle increases, so does breech cover, fleece weight, staple strength, along with the relevant indexes. Muscle and fat decreases. As wrinkle increases across the six micron categories weaning rate increases, however within each micron category as wrinkle increases there is no clear weaning rate trend.

Wool colour and fleece rot increase across the six micron categories, as micron increases (and wrinkle decreases) so does wool colour and fleece rot, the leading indicators of increasing body strike. Within each micron category there is no clear trend between wrinkle and wool colour and fleece rot.

Table 1 shows the challenges ahead to breed low diameter, low breech wrinkle, low body strike, 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, lower body strike, 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.

More information: Geoff Lindon, AWI Program Manager Genetics and Animal Welfare Advocacy, Geoff.Lindon@wool.com

Back Up Charlie – Flexible Sheep Movement System



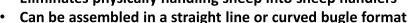
What is Back Up Charlie?

Back Up Charlie is a flexible dual lane lead up race for sheep handling applications requiring consistent forward flow of sheep.



Flexible to any sheep yard scenario





- Creates a safe low stress environment for you and the sheep
- A labour saving system that increases sheep yard efficiencies
- The lightweight hock bars stop sheep turning around or backing up
- Proudly Australian owned, designed and made in Lockhart NSW
- Henty Machinery Field Days 2016 Machine Of The Year WINNER!





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	EBC0V Score	LFLR Score	LCOL 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 A				6																	
Wrinkle 20% p		-	1						- 10										450	4/0	450
Min 0-20% 20-40%	11	0.1	0.0	0.2	-0.05 -0.08	-0.29 -0.48	9	7	12 15	8 11	-3.2 -3.3	-0.1 -0.4	-2.3 -1.6	-0.2	-0.3 -0.2	3.2 1.4	-21	0.05	159 152	162 163	159 164
41-60%	11	0.5	0.1	0.2	-0.07	-0.47	14	8	16	13	-3.4	-0.4	-1.3	-0.4	-0.2	0.7	-2	0.02	154	168	168
61-80%	11	0.8	0.0	0.1	-0.14	-0.41	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	-0.03	-0.39	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	55	0.6	0.0	0.2	-0.08	-0.41	14	9	16	13	-3.4	-0.4	-1.3	-0.4	-0.5	1.5	-1	-0.02	155	167	166
ASBV ave								_													L
Sires -2 to -3 i Wrinkle 20% p				16-17																	
Min 0-20%	52	-0.5	-0.1	-0.1	-0.03	-0.23	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	0.03	-0.16	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	-0.02	-0.28	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	-0.05	-0.38	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	-0.05	-0.42	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	-0.02	-0.30	18	12	20	18	-2.4	-0.5	-1	-0.4	-0.5	4.4	7	0.02	161	168	159
Sires -1 to -2 I				17-18																	
Wrinkle 20% p	ercentiles low	to high wr -0.8	inkle -0.1	-0.2	0.02	-0.05	13	6	15	11	-1.4	-1.3	-0.3	0.7	0.4	7	-9	0.07	158	153	142
20-40%	126	-0.4	0.0	-0.2	0.02	0.02	17	11	20	17	-1.4	-0.9	-0.3	0.7	0.0	7	-6	0.07	168	163	150
41-60%	126	-0.1	0.0	0.0	0.05	-0.10	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	0.08	-0.09	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	0.04	-0.21	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	0.06	-0.09	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 F	D ASBV, indic	ator adult	micron 18	B-19						l.	L		l								
Wrinkle 20% p	ercentiles low	to high wr	inkle		ı												,				
Min 0-20%	121	-1.1	-0.2	-0.4	-0.01	0.14	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	0.01	-0.01	16	10	20	16	-0.5	-1.2	1.4	0.9	0.5	7.4	-8	0.09	165	156	141
41-60% 61-80%	120 120	-0.4 -0.1	-0.1 0.0	-0.2 -0.1	0.04	-0.02	18 21	11 15	21	17 21	-0.5 -0.6	-1.0 -0.7	1.4	0.9	0.5	7.2 6.8	-12 -7	0.13	171 170	161	144
1-100%	120	0.4	0.1	0.0	0.04	-0.09	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	/04	0.1				0.04				45			4.0			_					4/0
FD ASBV ave	601	-0.4	-0.1	-0.2	0.03	0.01	18	11	21	17	-0.5	-1	1.3	0.8	0.4	7	-9	0.11	167	158	143
Sires 1 to 0 FD Wrinkle 20% p				-20																	
Min 0-20%	37	-1.3	-0.2	-0.6	0.10	0.35	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	0.07	0.24	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	0.01	0.04	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	0.06	0.06	19	12	23	20	0.4	-1.2	3.2	1.1	0.7	7.5	-17	0.17	174	159	140
81-100% Sires 1 to 0	37	0.1	-0.1	-0.1	0.0	0.12	25	17	28	25	0.3	-1.3	4.2	0.7	0.4	7.8	-8	0.20	182	171	149
FD ASBV ave	185	-0.6	-0.2	-0.3	0.05	0.14	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 AS Wrinkle 20% p																					
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	0.21	0.44	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	-0.28	0.02	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	0.08		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	-0.12	-0.16	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	-0.06	0.10	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	0.03	-0.08	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 &	-0.2	-0.1	-0.1	-0.04	-0.08	14	9	17	14	-1	-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 MERINOSLECT data run date 7th June 2022

Abbreviations: EBWR (Early Breech Wrinkle), LDAG (Late Dag), EBCOV (Early Breech Cover), LFLR (Late Fleece Rot), LCOL (Late Wool Colour), 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)

BREEDING FOR NATURAL FLYSTRIKE RESISTANT MERINOS - PUBLICATIONS

AWI makes available publications about breeding for flystrike resistant Merinos on its website at www.wool.com/flystrikelatest/#breeding

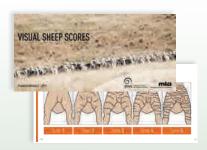
Here is a selection of the available publications:



PLANNING FOR A NON-MULESED MERINO ENTERPRISE

(March 2018)

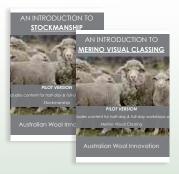
This 16-page report outlines the key learnings from a number of wool-growing enterprises, from a diverse range of environments and Merino types, that have moved to a non-mulesed enterprise.



VISUAL SHEEP SCORES -PRODUCER VERSION

(Updated 2023)

This 76-page pocket guide for commercial and stud breeders provides a standardised framework for assessing and scoring visual sheep traits, including breech and wrinkle traits.



AN INTRODUCTION TO MERINO VISUAL CLASSING & AN INTRODUCTION TO STOCKMANSHIP

(2015)

Two workshop packages comprising theory and practical activities that aim to develop participants' core skills.



SHEEP FLYSTRIKE RISK FACTORS

(March 2020)

BREEDING NATURALLY BREECH RESISTANT MERINOS

PART 1 – June 2020 PART 2 – September 2020

Each is a 2-page article from *Beyond the Bale.*

Plus an update in the June 2021 edition.



WELFARE AND PRODUCTION ASBVS

(December 2022)

MERINO GENETIC TRENDS

(September 2022)

Each is a 2-page summary article from *Beyond the Bale*.



GENETICALLY REDUCING BREECH FLYSTRIKE:

HOW FAST AND WHAT ARE THE CONSEQUENCES?

(June 2019)

LOW WRINKLE-HIGH FLEECE WEIGHT

PRODUCTIVE SIRES EASIER TO FIND

(June 2019)

Each is a 2-page summary article from *Beyond the Bale*.

NEW BREEDING FOR FLYSTRIKE RESISTANCE WORKSHOP-CLASSIFLY

ClassiFly, AWI's latest woolgrower workshop, which is focused on breeding for more natural and profitable flystrike resistance, has been successfully piloted and will be available to woolgrowers from July 2023 through the AWI grower extension networks.



Woolgrowers Richard Keniry of Kildara Pastoral Company and Michael Field of T A Field Estates at the ClassiFly pilot workshop at Cowra, discussing the different traits that make sheep more susceptible to flystrike.

he new one-day ClassiFly workshop has been informed by the latest research, subject matter experts, and the outcomes of five pilot workshops with more than 50 woolgrowers.

The workshop demonstrates there are both genetic and non-genetic factors that influence a sheep's susceptibility to flystrike which are described in the workshop as 'breech traits', 'wool quality traits', 'conformation traits' and 'management traits'.

Over the course of the day, workshop attendees learn about the different traits, the risk they present for flystrike, the phenotypic expression of the trait and how to class and select animals for these traits using visual assessment or Australian Sheep Breeding Values (ASBVs), or a combination of both.

Property-specific and practical learnings

AWI General Manager, Research, Bridget Peachey says breeding for more natural and profitable flystrike resistance requires a longterm plan unique to each woolgrower.

"There is no 'one size fits all' approach so the workshop focuses on woolgrowers applying the concepts relevant to their sheep, their farm and their choices while building a plan that best suits what they want to achieve," she said.

"It doesn't matter what your sheep type, climate, operating or husbandry environment is, this workshop should provide something for anyone looking to improve their understanding of what is involved in breeding sheep that are profitably resistant to flystrike."

During the workshop, attendees work through incorporating the traits associated with flystrike resistance into their own customised breeding objective and learn how to apply this to their own classing, selection and joining activities to improve their flock's overall susceptibility to flystrike.

Proven, easy-to-understand format

Angela Schuster, whose team is collaborating with AWI in the development of its Flystrike Extension Program and is a woolgrower herself said, "There's a wealth of information available from AWI research projects about breeding for improved flystrike resistance, and our challenge was to turn this into a one-day package of information to give woolgrowers confidence to adopt the outcomes."

Pilot workshops were held in Narrogin (WA), Dubbo (NSW), Armidale (NSW), Jamestown (SA) and Cowra (NSW) with 100% of attendees across all workshops indicating their understanding of breeding for natural flystrike resistance had increased and that they had the confidence to make changes to the way they breed for flystrike resistance, as a result of attending the workshop.

Delivered by AWI trained and accredited advisors throughout Australia, the workshop will revolve around a range of practical activities to help instil the learnings throughout the course of the day including having attendees 'pin the trait on the sheep', visually assess a virtual mob of sheep and participate in the 'ClassiFly Merinos Are Us' annual ram sale.

Woolgrowers leave the workshop with a range of tools and plans that can be implemented on-farm including a breeding objective customised to their enterprise, tools to assist visually assessing animals for flystrike traits, classing and selection plans to aid decision making, and a roadmap to monitor and review their progress towards a more naturally flystrike resistant flock.

ClassiFly is the fourth of six extension initiatives to be released under AWI's Flystrike Extension Program since January 2021. The Flystrike Extension Program is designed to support woolgrowers to improve the lifetime welfare of their sheep, reduce their reliance on mulesing, optimise chemical use and crutching, and increase whole farm profitability, through the provision of practical information and tools and access to accredited advisors.

More information:

- For further information on AWI's Flystrike Extension Program visit www.wool.com/ flystrikeresources
- For more detailed information on flystrike management, including access to interactive decision support tools, visit www.flyboss.com.au
- For information on AWI's flystrike research, development and extension program, visit www.wool.com/flystrike

How to get involved

ClassiFly workshops are available in partnership with the AWI state grower extension networks. To find out when there is going to be a workshop available near you or to register your interest in a ClassiFly workshop in your region, contact your state grower extension network and sign up to their free newsletters. For contact details and information about AWI's state grower extension networks visit www.wool.com/ networks



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: CSIR0
 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 final Macquarie Merino Lifetime Productivity (MLP) project field day was held on 29 March, hosted by NSW DPI's Trangie Agricultural Research Centre in partnership with the Macquarie Sire Evaluation Association.



Flea and Tim McShane with daughters of Stockman Poll 130707 at the Macquarie field day.

Acrowd of 120 people descended to the site to see the daughters of 31 industry sires penned in their sire groups for the very last time. The focus of the field day was to celebrate the Macquarie site and to take a closer look at the key features that set the site apart from the other four MLP sites.

The day was complemented by four formal presentations and a series of pen-side talks. An evening dinner celebrated the success of the site and saw long term wool industry stalwart Allan Casey awarded an Australian Wool Industry Medal.

The Macquarie site was established to provide data to help answer key MLP analysis questions and explore the impact of ewe type on sire performance.

Two diverse ewe types were joined to 31 industry sires to generate the MLP ewes:

- One ewe type was sourced from all-purpose commercial Merino flocks which averaged between 18.0 and 18.5µm (Type 1).
- The other ewe type was sourced from large framed, heavy cutting commercial Merino flocks that averaged between 20.5 and 21.5µm (Type 2).

Ewes from these two bloodlines were equally allocated to each sire.

All 31 sire groups were on display for the first time penned by sire and ewe type group. This involved a 62-way draft which was capably managed by MLP site manger Ms Tracie Bird-Gardiner with support from NSW DPI and Local Land Services staff.

Each sire pen had the standard MLP reporting of raw data, adjusted sire means and Flock Breeding Values, with an additional pen card featuring performance based on ewe type source.

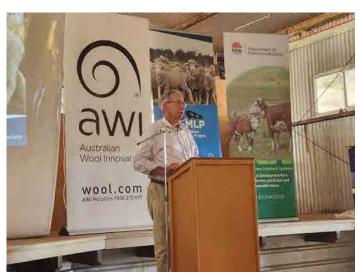


Sue Hatcher, Sue Mortimer, Dougal Gordon, Kathryn Egerton-Warburton, and Tracie Bird Gardiner at the Macquarie field day.

NSW DPI researcher Dr Sue Mortimer explained to field day attendees that some Merino breeders are concerned that predictions of a sire's progeny performance will change when mated to different ewe sources.

"Where we have ewes that are of a different genetic background to the sire, some in the industry feel that breeding values, either ASBVs or flock breeding values, are unable to reliably predict progeny performance due to the influence of genotype-by-genotype interactions. These interactions are also known as hybrid vigour," she said.

Sue went on to explain that past research has shown variable estimates of hybrid vigour. One study found an impact of 3-4% on hogget fleece weight and body weight, as well as hybrid vigour in reproduction performance. A more recent study undertaken at a previous Macquarie sire evaluation trial showed a small hybrid vigour impact on wool quality traits across ages, but no impact on fleece weights. If these interactions are not accounted for, they may lead to performance re-ranking of sires across the different ewe sources that they are mated to.



Graham Wells presenting at the Macquarie field day.

Former One Oak Merino stud principal Graham Wells was a strong advocate for use of diverse ewe types at the Macquarie site. Graham presented at the field day and outlined that the two ewe sources were selected for a range of reasons.

"The Type 1 breeder uses breeding values extensively in its selection program and has a focus on a more dual-purpose animal, while the Type 2 breeder bases selection decisions largely on visual appraisal: selecting for large framed wool cutters," he said.

Graham urged the audience to explore the sire performance by ewe type and observed visually that some sires fared better when joined to one ewe type over the other.

"Where free growing sire types with lower follicle density are put across thicker skin type ewes, the progeny will express above their sire fleece weight genetic potential. Whereas when a heavy skin thicker type of sire is put over a plain bodied free growing ewe type, the progeny will express a lot more wool cut than their mothers," he said.

He suggested that the trial data can tell us only so much, and that growers need to see for themselves the impact of ewe type on sire performance.

Dr Sue Mortimer presented a statistical comparison of the performance of the sires generated from the two ewe types and explored whether the performance ranking of sires for each trait changed when joined to different ewe types.

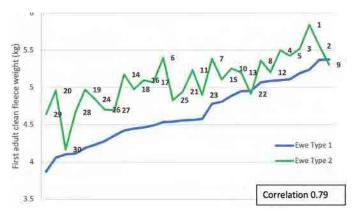
Sue used correlations between adjusted sire means to determine whether sires ranked the same on each ewe type. Adjusted sire means are the average performance of all the progeny of a sire adjusted for factors that influence performance such as an individual's birth type, rear type, age of dam and management group. Correlations of 0.8 and more reveal similar rankings, values less than 0.8 and lower show larger re-rankings.

Sue found that using the eye muscle depth and fat depth data collected to date, sires ranked consistently across the two ewe types at yearling, hogget and adult age stages. Body weights ranked consistently at yearling and hogget stages (correlation 0.96 and above) while some performance re-ranking took place at adult age stage (0.73 correlation).

Sires ranked consistently across the two ewe types for visual traits of wool colour, staple structure, wool character, and body wrinkle. This consistency was observed at post weaning, hogget and adult stages, with correlations generally greater than 0.9.

Sue also outlined that, for measured wool traits, sires ranked consistently for fibre diameter at their first adult shearing, while for the first adult clean fleece weight assessment sires generally ranked the same, with some minor evidence of re-ranking (see Figure 1).

Figure 1: Macquarie 2017 and 2018 drop first adult clean fleece weight adjusted sire means by ewe type. Ewe Type 1 is dual purpose, Ewe Type 2 is heavy cutting. Sires plotted in increasing order of performance for Ewe Type 1. Data points indicate the sire ranking for adult clean fleece weight on Ewe Type 2.



Sue's presentation stressed that current genetic evaluations that produce breeding value estimates have mechanisms to account for varying number of ewes in each sire group and these 'sire by ewe type' interactions, and that the Macquarie MLP analysis will be used to demonstrate how this is achieved.

The Macquarie site will now wait for the final year of data to be collected and then revisit the 'sire by ewe type' analysis using the lifetime data set. The final analysis will include the comparison of performance based on raw data, adjusted sire means and breeding

While a key outcome of the MLP project will be to better predict lifetime productivity and profitability at young ages, pedigree and ongoing extensive progeny testing will remain a very important component of Merino genetic evaluation.

Data collection at the Macquarie site will be completed by the end of 2023. The New England site will be left operating until July 2024 and once the final data is complete the core MLP analysis begins!

AWI has commenced a two-year project to improve and increase the data going into the Merino Genomic Reference Flock, and to increase the genomic information on flystrike.

The new project is focused on:

- genotyping up to 5,000 progeny of 100 sires in Sire Evaluation each year
- genotyping 'on farm' animals that have been fly struck and collecting a range of data on the correlated indicator traits (ie pedigree, wrinkle, dag, wool colour, fleece rot); and
- assisting breeders cover the data management cost to do so.

Genomics has played an increasing role in genetic evaluation over the past decade. Quickly the focus moved from finding single genes of large effect for individual traits to genomically enhanced ASBVs (single step analysis for all traits) where all ASBVs are influenced by genomics. As the amount and quality of data improves, along with the methods used in the analysis, so does the value of genomic information.

Genomics has played an important role in increasing the depth of pedigree for many animals in MERINOSELECT. Having good information on parents and their relatives provides important information to better predict mid parent value ASBVs for young progeny, prior to direct measurements being collected. It has also assisted in the relatively quick move in eastern states to polled Merinos, by providing an indicator for Polledness through the HH, PH and PP genomic results.

Genomically enhanced ASBVs are most cost effective when animals are selected prior to taking a direct measurement of an important trait. This includes selecting:

- 5-7 month old ewe and ram lambs for joining prior to being able to conduct a fleece assessment
- animals prior to the expression of dags, worms, fleece rot or flystrike, more likely to occur in dry seasons
- · ewes and rams for reproduction prior to joining
- for meat eating quality.

Once a direct measurement can take place, the value of genomics falls as generally an accurate direct measure overrides the influence of the genomic data for that trait.

There are also instances where it is only at much older ages that an accurate direct measure can be taken, such as lifetime fleece traits, reproduction and survival.

For genomics to have most value to a breeder they need to be well connected to the Reference Flock, which means a breeder needs animals in the Reference Flock that have similar and current genetics.

The current Merino Genomic Reference Flock has data from the Sheep CRC INF, MLA's Genomic Reference Flocks, Merino Lifetime Productivity (MLP) project, AWI Breech Strike Resistance Flocks, and increasingly on farm data from MERINOSELECT breeders.

With the last MLP joining taking place in 2018, this project is designed to increase the amount of contemporary older age data in the Reference Flock by:

- Utilising the existing seven Sire Evaluation sites across Australia by assisting with half the cost of genotyping up to 5,000 progeny per year generated from 100 AI sires. This allows any breeder to join the Merino Genomic Reference Flock by entering a sire. These Sire Evaluation sites take a broad range of visual and objective traits up to and including the adult age.
- Increasing genotypes from existing ram breeders that are recording
 on-farm flystrike phenotypes. AWI will assist with half the cost
 of genotyping struck animals in accordance with a well-defined
 protocol and pay the associated cost of recording and transferring
 that data. The aim is to develop a Flystrike Research Breeding Value
 as quickly as possible to act as an incentive for ram breeders to get
 involved. Genomics may also assist in not needing wrinkle and dags
 to be so low for natural flystrike resistance.

More information:

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Two new AWI-sponsored projects are investigating how to increase wool industry productivity through (1) improved non-invasive cervical artificial insemination, and (2) better skin follicle information. The two, 12-month projects are being carried out by researchers who have been awarded 2023 Science and Innovation Awards for Young People in Agriculture.



Dr Taylor Pini, University of Queensland

Research topic: Improved cervical artificial insemination

A passionate reproductive scientist and lecturer at the University of Queensland, Dr Taylor Pini is exploring the interactions between ewe cervixes and frozen ram semen in cervical artificial insemination (AI).

Artificial breeding in sheep is usually done through laparoscopic AI. However, Taylor says wider adoption of the procedure by producers is constrained because it is labour intensive, expensive and invasive for the animals. A better option would be cervical AI – but that comes with pregnancy rates below 30% with elite frozen semen compared to 70% using freshly collected semen.

"This project is trying to understand what actually happens when we put ram sperm in the sheep cervix, how the cervix reacts, and better understand the impact on sperm when it is frozen and thawed and then expected to swim through the cervix in search of an egg," Taylor said.

"If we figure out what's going wrong there with thawed frozen semen, hopefully there's a mechanism that we can use to intervene to try and improve outcomes."

Taylor co-hosts Repro Radio, a monthly podcast for researchers, vets and farmers on the science of animal reproduction. She says making artificial breeding technologies more accessible for producers could have huge benefits for the industry in increasing the use of elite semen and reducing costs.

"If you compare the sheep industry to the dairy industry for example – the dairy industry is very heavily reliant on artificial insemination. They've seen huge leaps in genetic progress. Whereas we haven't really seen as much of that in the sheep industry," she said



Dr James Preston, University of New England

Research topic: Better skin follicle information

Dr James Preston is investigating skin follicle traits in sheep and if they can be used to determine productivity and improve selection accuracy.

In the past, there's been a lot of research into whether boosting wool follicles can improve productivity for farmers. But scientists haven't found a strong link between the density of skin follicles and sheep fleece weights. James is looking to change that.

One theory is that sheep are affected by something called 'allometric growth'. James explains that sheep don't develop any new wool follicles after four weeks of age. Instead, the existing follicles stretch over the sheep's body as the animal grows.

"Bigger sheep naturally have a lower density of follicles because their skin is stretched over a larger area. So the project is looking to measure the surface area of different sheep and adjust the follicle density measurements based on body size across a cohort of animals," James said.

James will then look at whether the corrected skin follicle information correlates better with the fleece production of young and adult sheep. The potential benefits of the findings will allow early selection of sheep that may result in greater lifetime productivity for the wool industry.

In addition to his research position at the University of New England, James runs a private sheep business called Preston Livestock Solutions in which he pregnancy scans about 60,000 sheep a year, and does sheep classing and ram purchasing on behalf of clients.

Science and Innovation Awards for Young People in Agriculture

The Science and Innovation Awards for Young People in Agriculture are coordinated by ABARES and are open to young people aged 18-35 years working or studying in rural industries.

The annual awards fund innovative projects in Australian agriculture and support the next generation of researchers

AWI is a partner and has supported the Awards for many years.

In addition to the two 2023 AWI-sponsored recipients detailed on this page, other recent AWI-sponsored recipients and their research topics include:

- 2022 Bobbie Lewis Baida (University of Adelaide): how hot weather impacts ram fertility.
- 2021 Bianca Agenbag (University of Adelaide): impact of colostrum on the reproductive potential of rams.
- 2020 Dr Tom Clune (Murdoch University): the role that Chlamydia has on sheep health and lamb losses.

More information: www.wool.com/scienceawards

Charlie Shadwell from NSW is the 2023 recipient of a Horizon Scholarship sponsored by AWI, in recognition of his leadership potential and commitment to Australian agriculture.

The Horizon Scholarship is an initiative of AgriFutures Australia and provides the next generation of agricultural leaders with opportunities to kickstart their leadership skills and expand their networks.

Under the scholarship, AWI is supporting Charlie through his Bachelor of Veterinary Biology/Bachelor of Veterinary Science at Charles Sturt University (CSU) by providing him with a financial bursary during the final year of his degree and professional support in the form of mentoring, professional development workshops and two weeks of industry placement.

"I grew up in suburban Dubbo and was fortunate to have direct family close by that owned and operated sheep, cattle and cropping enterprises, allowing me to develop a strong passion for the agricultural industry," Charlie said.

"To further develop this, I left Dubbo in 2013 and commenced my secondary schooling at Farrer Memorial Agricultural High School in Tamworth, where I was heavily involved in all aspects of the agricultural enterprises run at the school. This included the management, genetic selection and breeding programs associated with the Merino and White Suffolk flocks, where I discovered my love for sheep artificial breeding and genetic advancement.



I'm very passionate about the way it can help us achieve rapid genetic gains to improve the quality and quantity of fibre and meat that we produce.

"In 2019, after the completion of my HSC, I was fortunate enough to secure a position in the Veterinary Science degree at CSU in Wagga.

After the completion of my degree in 2024, I wish to enter this sector of the industry."

Charlie said he is thrilled to receive the Horizon Scholarship and thanked AWI.

"I'm truly grateful to be given this opportunity and super excited for all the network and knowledge building opportunities that this program allows us to achieve, through workshops and specific industry targeted placements," he said.

"I'm ecstatic to have AWI as my sponsor and can't wait to get a better understanding of its operation and the main factors influencing the productivity of sheep reproduction, including woolgrower education and best practice management, ewe nutrition and supplementary feeding, mob dynamics and climate variability on sheep reproductive health."

In July, students on the AgriFutures Horizon Scholarship program will attend a four-day workshop focused on leadership and personal development. The workshop will feature special guest speakers, industry experts and also provide the opportunity to network, meet sponsors and discuss innovations and challenges in the agricultural sector.

More information: www.agrifutures.com.au/horizon-scholarship



We specialise in mobile crutching systems, with one to three stand models available.

No bending, no dragging, less swearing!

A cost-effective and shearer-friendly alternative to traditional woolsheds that eliminates the catching pen and can allow for a multi-purpose shed.



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



A new collaborative project will trial the use of automated feeders designed to deliver methanereducing additives to grazing sheep.

AWI's investment to reduce methane emissions from grazing sheep received another boost in March when the Federal Government announced funding for a new project under Stage 3 of its Methane Emissions Reduction in Livestock (MERIL) Program.

The new MERIL grant provides \$1,954,690 to evaluate two automated sheep feeders for delivering methane-reducing additives to sheep – Asparagopsis, Bovaer and Agolin. The work will be undertaken in collaboration with the University of New England (UNE), the Department of Primary Industries and Regions South Australia, the University of Western Australia and Feedworks.

"One of the biggest problems the grazing sheep industry faces is a lack of equipment designed to regularly deliver antimethanogenic supplements to animals on pasture without significantly increasing labour input," said Professor Julius van der Werf, lead researcher and Head of UNE's School of Environmental and Rural Science. "The automated feeders being tested in this study will help fill this gap."

The feeders work by identifying individual animals using electronic ear tags and feeding them a pre-set amount of supplementary feed. This removes the need to manually monitor doses when feeding grazing sheep with supplements that contain the required feed additives. This will significantly reduce the labour input and cost for producers who choose to implement the system.

Previous MERiL funding

This new funding is in addition to the four projects, in which AWI is involved, that are already receiving funding from the Federal Government under the MERIL program.

Projects under Stage 2 of the MERiL program (announced in October 2022):

- To 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).
- To 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).
- To develop a novel paddock solution to deliver methane-reducing supplements to grazing sheep (in collaboration with the University of New England with Feedworks).

Project under Stage 1 of the MERiL program (announced in February 2022):

 To undertake 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 (in collaboration with the University of New England and Sea Forest).

Collaboration means value for money

AWI's Program Manager, Fibre Advocacy & Eco Credentials, Angus Ireland says these four projects are part of a broad strategy by AWI in collaboration with other industry bodies to identify and assess the most effective ways to reduce greenhouse gas emissions from sheep.

"This work sits within the National Sheep Methane Program (NSMP) 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.

"Through our engagement in the NSMP, every MERiL project supported by AWI to date has been approved and co-funded by the government. Typically for every \$1 invested by AWI, \$2 is provided by the government and other partners, so it's a good leveraging of woolgrower levy funding.

"As a business, AWI is committed to assisting industry to reduce its environmental impact, and the farming stage is a key focus area for reducing greenhouse gas emissions. We invest in robust science to enable Australian wool is seen in the market as a natural and circular solution to the detrimental effects of fast fashion on the planet."

Training and advisory services offered to Western Australia sheep and wool producers to manage wild dogs were stepped up over the past three years thanks to AWI investment.



PH0T0: indianoceanimagery

The project in WA demonstrated the opportunities of using new technologies on-property to capitalise on existing community-based activities. PHOTO: Midlands Biosecurity Group.

Agrant contribution of \$270,000 by AWI contributed to the collaborative funding of wild dog and vertebrate pest animal control activities under the WA Wild Dog Action Plan, with the ultimate goals of increasing the kilograms of wool produced, landholder participation rates in vertebrate pest control, the mental well-being of woolgrowers and anecdotal reports of native wildlife.

Administered by the Department of Primary Industries and Regional Development, Western Australia (DPIRD), the WA Wild Dog and Vertebrate Pest Training Project resulted in 28 training activities organised across seven Recognised Biosecurity Groups (RBG) regions, attended by more than 317 sheep producers and pastoralists.

AWI Program Manager Vertebrate Pests Ian Evans says the project aimed to increase the uptake of traditional control tools by individual producers and demonstrate the opportunities of using new technologies on-property to capitalise on existing community-based activities.

"AWI understands the need to respond to emerging needs and new and innovative ways of providing for knowledge and skills development," Ian said.

"The focus of the training activities was conducted mainly in the frontline regions where the bulk of the WA sheep flock faces the main threat from wild dogs.

"It has contributed to increasing the knowledge and skills in the control of wild dogs and other vertebrate pests and lifted producer participation in wild dog and vertebrate predator pest control in WA."

New technologies complement existing controls

More than 100 training resource tool kits were distributed along with remote motion sensors, auditory controls, geographical mapping data, and a range of new technologies.

The new technology included eVorta® software images for quick identification and notification of target species, thermal and infra-red technology, canid pest ejectors bait head trials, 3G remote monitoring cameras, feral pig trapping systems, and the Ezy2C® GPS satellite foot hold trap alert and monitoring system.

All were offered and demonstrated to sheep and wool producers to enhance their knowledge and skills in the control of wild dogs, pigs and foxes.

Practical activities were supported by the development of a series of locally based community engagement videos and podcasts and engagement opportunities at numerous industry field days and events.

DPIRD Invasive Species Sustainability and Biosecurity Project Coordinator, Kim Haywood, says the new technologies attracted interest from pastoralists, sheep producers and associated service providers.

"The project provided an ideal opportunity to bring people together to learn about effective control technologies and be trained in their use, then upskill participants in other areas of capacity related to wild dog management at the same time," Kim said.

"It is also encouraging people in the industry to think creatively and laterally about ways to manage wild dogs, rather than just relying on the traditional ways that have been used for many years."

Training resulted in reduction of vertebrate pests

Producers who attended the various training activities during the project reported a reduction in the number of wild dogs, foxes, and pigs in the landscape as a direct result of the application of the training.

Kim says sheep and wool producers were more likely to participate in programs when they see their own neighbours having success in baiting and trapping efforts.

"The success of the project has resulted in increased demand from producers to access baiting products and technologies," Kim said.

"The RBGs are keen to ensure new technologies can be shared with sheep and wool producers across the state to safeguard the longevity of the Australian wool industry.

"The outcomes of this project will ultimately enable the return of sheep to the regions."

The participating RBGs were Carnarvon, Meekatharra, Goldfields Nullarbor, Northern, Midlands, Central Wheatbelt and Southern.



INCREASE YOUR PROFITS BY CONTROLLING FOXES

Since its first use in 1992, the FOXOFF® 1080 fox bait from Animal Control Technologies Australia (ACTA) has increased profits for many sheep farms.

CTA says that with foxes on the rise again Aand taking up to 30% of lambs born, it is easy to increase profits by adopting effective fox control. The company illustrates this by using an example farm 'Lambing Flats' that produces prime lambs on 250 hectares with a stocking rate of four breeding ewes per hectare (ie 1000 ewes total).

At Lambing Flats, they have a typical lamb marking of about 85 lambs per 100 ewes if spring joined. As a result, their 1000 ewes produce 850 finished lambs for sale, which at \$150 per lamb, provides a gross income of \$127,500.

ACTA says foxes range in density from 2 to 20 foxes per square kilometer, but at just 4/ km² there can be more than 300 foxes within a 10km radius of your flock. It is not just one old rogue fox with a white tip on his tail!

If foxes are taking even just one in 10 lambs born at Lambing Flats, 85 lambs are lost to predation. Preventing this loss by good fox control saves 85 lambs, worth \$12,750 of income. Note that many places in Australia suffer much higher predation lamb losses than

ACTA says a good fox control baiting campaign will require weekly baiting at one bait per 10 hectares over the whole property with baits replaced weekly over a six-week period prelambing. Shelf-stable FOXOFF® Econobaits from ACTA each cost about \$1.98 (including GST) from a 1080 accredited merchant. For Lambing Flats, at six baits/10 hectares over 250 hectares, they would need 150 baits which would cost a total of \$297.

So, for a spend of just \$297, Lambing Flats could potentially get a gross return on

investment (ROI) of \$12,750. This is 43 times your money back!

"In this case, a good fox control program is paid for by saving just two lambs. Try achieving this ROI on a poker machine!" said ACTA Managing Director Linton Staples.

"The message here is simple, no matter what numbers you plug into this scenario, the benefit/cost of fox control with FOXOFF® is so high that every lamb producer should be doing this protective measure."

Add to this the value of being able to increase selection pressure, or run more wethers, having some free-range eggs instead of dead chooks, and saving the local wildlife, then there are many benefits from good quality fox

More information: www.animalcontrol.com.au



AWI is involved in a range of initiatives to encourage the younger generation into the wool industry. Reported here and overleaf is a snapshot of some of the AWI-supported initiatives undertaken in the past few months.





AWI's National Extension Manager **Emily King** presenting the Junior Handler champion sash to **Lainie Jackson**. What did Lainie think of the SA Sheep Expo? "It has been the best time, you get to do a lot of fun things," she said.

SA Sheep Expo

1 45 students from across Australia attended the SA Sheep Expo in April at the Adelaide Showground, during which the students developed a better understanding of the sheep and wool industry and the opportunities it offers them

Established in 2016, the three-day SA Sheep Expo is an educational initiative for young sheep enthusiasts aged 12 to 23 years. AWI is a Foundation Sponsor of the event and has supported it in each of the six years it has been held.

The interactive program for students included hands-on sessions, demonstrations and presentations from leading industry experts. Each year a focus is given to a key topic of the industry; this year the focus was on rams, with sessions ranging from ram selection and assessment to pre-mating ram check, and even how to take the perfect photo of a ram for promotions.

There were a range of other sessions, such as sheep handling and presentation, wool on the farm, and farm safety. AWI's National Extension Manager Emily King presented on the key elements of best practice shearing shed design.

All participants were allocated a stud sheep supplied by a breed society/association to be accountable for over the duration of the Expo. This included mucking out, feeding, and general care.

Participants were also able to compete in age groups to maximise learning outcomes, with major incentives and prizes up for grabs in all age groups.

The Expo not only increased the students' practical knowledge of how to run successful sheep enterprises, but also provided them with exposure to the wide range of career pathways within the sheep and wool industry. The event enabled students to engage at a grassroots level within the industry and provided them with the opportunity to build industry networks for their future in the industry.



Southern Tablelands Flock Ewe Championship

To boost their knowledge about sheep selection, 65 school agricultural students and teachers attended the AWI-supported Southern Tablelands Flock Ewe Championship held in the Crookwell region of NSW in March. The students undertook hands-on sessions to assess quality in Merino ewes based on a range of breeding characteristics.

The students also participated in a junior judging competition in which they were asked to judge the sheep and speak to the judging panel regarding the reasons for their selections. The students learnt a great deal from the industry representatives in attendance and enjoyed networking with local woolgrowers.



Walcha Rotary Youth in Ag - Sheep

In March, the Walcha Rotary Youth in Ag program ran a four-day camp for 32 students from Years 9 to 12 across northern NSW who are interested in the sheep industry. The students visited a range of industry facilities and innovative sheep farming operations. Best practice for sheep and wool production – including health and welfare, breeding and selection, pastures and nutrition – were demonstrated in very hands-on sessions.

AWI sponsored the program and was also in attendance, with AWI Project Coordinator Extension & Capacity Building George Lehmann presenting how wool moves through the supply chain from farm to fashion. Students came away from the camp with a wealth of knowledge about sheep and wool and also with ideas for future careers in the industry.



The Scots College Agriculture Careers Expo

In April, The Scots College in Sydney hosted an Agriculture Careers Expo for neighbouring schools, students, parents and carers. The event brought together a range of universities, companies and experts in the industry to showcase the innovative career opportunities for future students. AWI was in attendance to promote to the students the wide career options available in the wool industry.

Guide to careers in the wool industry

To encourage more youngsters to consider a career in the wool industry, AWI will this month launch a new guide that showcases the diverse range of roles within the wool industry: from farmhand to wool classer, AI technician to veterinarian, extension officer to livestock agent.

The new 'Your future in wool' guide also provides the pathways that students can follow to embark upon the particular career in wool that interests them. It also helps them investigate the skills, knowledge, attitude and experience they need to excel in the industry.

There are also lots of stories about real people working in the wool industry and they share some great tips about what it takes to be successful and make the most of the available opportunities.

The guide also includes a range of useful websites and handy decision-making tools to help students on their journey in the wool industry.

AWI GRADUATE TRAINING PROGRAM 2024

After another successful year for the AWI Graduate Training Program, applications for the 2024 program open on 1 August 2023.



The AWI Graduate Training Program provides successful applicants with a thorough understanding of the wool supply chain from fibre to fashion.

The 18-month program starts each year in March and is based primarily at the AWI office in Sydney, where the graduates gain exposure to many areas of the AWI business including on-farm and off-farm R&D through to marketing.

Graduates are also given the opportunity to gain global exposure to the wool supply chain through two international rotations.

The program provides the graduates with ongoing professional training and development opportunities, to further enhance their career within the industry. It is aimed at graduates from a broad cross section of disciplines who have a background in or connection with the Australian wool industry.

A Message from AWI CEO John Roberts

"2024 will bring the AWI Graduate Training Program's sixth intake of graduates. Having worked intimately with the past and current graduates, I've seen firsthand the value of having such an all-encompassing program within the industry, covering the full supply chain, and the benefits it provides the successful graduates in enhancing their career within wool.

"We continue to focus on attracting and retaining the top talent and the program is just one of the mechanisms we have in creating a talent pipeline and future proofing human resources in the industry."

More information: From 1 August, you can apply at www.wool.com/careers. Applications close 31 August.



This year for the first time, students from schools across Tasmania and Queensland are joining their counterparts in South Australia, New South Wales and Western Australia to gain practical hands-on sheep management experience by looking after teams of Merino wethers as part of state competitions.



High school students in Tasmania learning hands-on, practical sheep management skills as part of the School Merino Wether Challenge initiative.

Merino wether competitions are this year being held in five states across the country with their aim to educate high school students about the commercial production of Merino sheep. The initiatives provide the students with a memorable 'hands on' experience covering a broad range of sheep and wool production skills.

Each school team looks after several wethers (from studs in their state) for about six months, with the students forming a close relationship with their wethers. This provides a unique and practical experience for the students. 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 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.

This year, a special set of learning resources has been made available on AWI's Learn About Wool website to help teachers deliver an engaging and educational 10-week program about sheep and wool production to their students. The program is ideal for those taking part in the Merino wether competitions and it has been very well received by ag teachers.

The Merino wether competitions were initiated 13 years ago in South Australia by the SA Stud Merino Sheepbreeders Association (Merino SA), with similar competitions having since been introduced in New South Wales and Western Australia. Following the success of these three initiatives, this year students in Tasmania and Queensland have also been given the chance to take part in their own state competitions. Discussions about introducing a similar program in Victoria are under way.

All the competitions are supported by AWI, as well as individual studs, schools, teachers and students.

The Tasmanian experience

In Tasmania this year, AWI has established a School Merino Wether Challenge in partnership with the Stud Merino Breeders Association of Tasmania, with 13 schools from across the state participating.

"The Challenge kicked off in March and the response and engagement from schools across Tasmania has been overwhelming," said Lachlan West of AWI's NextGen Project.

"The willingness from farmers to engage in the program has also been great. We have been able to partner each of the 13 schools with a farmer in their local area. All of the sheep have been donated to the schools and all of the farmers are willing to provide advice and support to the school they donated to.

"For example, one farmer, a local stock broker and shearing contractor, organised an event for the students at their local school to select their sheep, participate in the shearing and wool handling process and treat the sheep for parasites."

Lachan says the initiative crucially exposes students to the wide range of careers in the sheep and wool industry.

"The program is collectively reaching hundreds of year 9-10 students across Tasmania; this is a critical age bracket of students to be interacting with, as they are deciding on their future career paths," he said.

"Already I have organised several volunteers to visit participating schools to explain their career path in the wool industry. These volunteers range from wool classers and shearers to wool brokers, stock agents and agri-finance."

The program in Tasmania will conclude with an inter-school competition in September at the Campbell Town Showgrounds.

"All of the schools are very excited about this competition aspect of the program," Lachlan added.



Australian lifestyle brand Sportscraft has partnered with AWI's marketing arm, The Woolmark Company, to create and launch a 53-piece collection of Australian Merino wool garments that champion the eco-credentials of the fibre.



An example of the imagery used in the promotion of the new Sportscraft x Woolmark collection.



Woolgrower Rosie Mitchell at the Sportscraft photoshoot: "I'm so proud to be here today on behalf of Australian woolgrowers. It's exciting to see Sportscraft and Woolmark do magical things together"

As we start to prepare for cooler weather Down Under, leading Australian lifestyle brand Sportscraft continues its journey with The Woolmark Company, releasing a new autumn/winter campaign that highlights the natural beauty of Australian Merino wool and the woolgrowers who produce this 100% natural fibre.

The marketing of the new Woolmark-certified collection stars Merino woolgrower Rosie Mitchell, from 'Kingslea' near Jugiong, NSW. Rosie is the fifth generation of the family on the land, being the great granddaughter of Charles Mills of Uardry – so Merinos definitely run through her veins.

In a promotional video for the new collection, Rosie explains why she loves working with Merinos and the benefits of the fibre.

"I'm following in my mother's footsteps, she's been doing it for the best part of 80 years and navigating it very successfully, so it's just a natural progression for me. I love wool farming because it is working in the outdoors, it is working with animals, and it is producing a product that is absolutely incredible and has so much to give," Rosie said.

"There is nothing else like wool out there that can be so amazing for the environment and has the most amazing eco-credentials. It's sustainable, it's natural, and it's biodegradable. And moving forward, with the way the world's going, I think we need to start to learn more about buying for longevity and not landfill, and wool is the perfect product for that."

Sportscraft and Woolmark working together

Sportscraft has a deep association with wool, being the first Australian brand to become a Woolmark licensee back in 1964. And today, both Sportscraft and The Woolmark Company share mutual values towards creating a more sustainable future by promoting the quality and eco-credentials of the fibre.

The Sportscraft campaign is titled 'We believe in Woolmark' which is an endorsement of not only the Woolmark certification scheme but also Australian woolgrowers, who own the Woolmark logo.

"Our collection celebrates the craftsmanship that goes into every fibre, from land to garment. To earn the prestigious Woolmark endorsement, each of our products underwent a rigorous five-step quality checking process so you know that it's been designed to last," explained Sportscraft's Social and Environmental manager Eloise Rapp.

"Woolmark continues to demonstrate a commitment to environmental responsibility and biodiversity protection that we at Sportscraft also share. It's a natural partnership for us."

AWI CEO John Roberts says The Woolmark Company is proud to continue its relationship on behalf of Australian woolgrowers with Sportscraft.

"The Sportscraft collection not only highlights wool's inherent performance and technical benefits, but it also shines the spotlight on the strong environmental story of Australian wool. It's an initiative that meets the demands of the conscious consumer," John said.

"AWI invests in sound, scientific solutions to help Australian woolgrowers manage the environment of their wool-growing enterprise, thereby helping to secure wool's market position as a natural, circular and regenerative solution to some of the challenges created by fast fashion."

Marketing the collection

The 53-piece collection showcases the versatility of Merino wool in garments such as classic coats, twill pants and knitwear. In a homage to the Australian landscape, colours such as honey gold, emerald and mountain blue lead collection.

The garments are available to purchase online on the Sportscraft website, in its brick-andmortar stores across Australia, and also in David Jones stores.

The marketing of the collection included a take-over of the Sportscraft website's homepage for two weeks, along with story pages that highlight traceability of wool from the farm. Importantly, each page provides customers with a direct link to the online store where the garments can be purchased.

The digital component of the promotion also included a social media campaign and an e-newsletter mailout. Promotional material and displays were also placed in-store and in the windows of Sportscraft and David Jones stores.

More information: www.sportscraft.com.au

As founder and owner of knitwear brand Iris & Wool, Emily Riggs helps to promote the superior quality of wool produced in Australia, thereby supporting the country's woolgrowers and rural areas.



Iris & Wool founder Emily Riggs wearing a garment from the brand's new Provenance collection which includes wool sourced from the Riggs family's Murkaby property at Burra in South Australia.



Burra locals Felicity Stockman and Amelia Rasheed, with Emily Riggs, showcasing garments from the Iris & Wool new Provenance collection at the Elders SA Stud Merino Expo in March.

mily Riggs and her husband Tom live at Burra in the mid-north of South Australia where the family farms more than 30,000 hectares of mainly pastoral country and runs about 15,000 Merinos.

Emily launched the Iris & Wool knitwear brand in 2019 to showcase Australian Merino wool as the perfect fibre for apparel with a minimal environmental impact. Since then, the brand has grown from strength to strength to become well known across the country for producing timeless Merino wool designs of the highest quality for women, men and children.

Iris & Wool's latest Woolmark-certified collection – aptly named 'Provenance' – heralds an exciting new chapter for the brand, with some of the collection's wool sourced from the Riggs family's own Murkaby property.

"Last year, our mill purchased at auction in Melbourne 128 bales of our Murkaby branded wool, some of which has been used in the latest Iris & Wool collection," Emily explained. "The Riggs family has been producing Merino wool at Murkaby for 150 years. The property has been in the Riggs family for six generations now, with our two kids Sam and Lucy being the sixth. The new collection is a very pleasing nod to the hard-working Riggs family and the beautiful wool they have produced over the years."

Iris & Wool had a hometown launch of the Provenance collection in Burra, with a fashion parade held in conjunction with AWI's woolgrower dinner at the Elders SA Stud Merino Expo in March.

Emily is a big advocate of Australian wool, travelling to events and shows across the country and featuring in the media promoting Australian wool and her brand. In just the last year, she has featured in many high-profile publications including Country Style, Marie Claire and Sunday Life magazines, the front page of The Australian, and more.

"Having some of our own wool in the latest collection allows the Iris & Wool brand to even better educate consumers about the benefits, background and beauty of Australian Merino wool – one of the finest natural materials in the world – and the woolgrowers and local communities that the fibre supports," Emily said.

In November, her commitment to rural Australia was officially recognised when, out of 120 nominated women, she won the 2022 Shine Awards which celebrate rural and regional women who make a real difference to their communities and industries

More information: www.irisandwool.com



Steve Noa of Themerinopolo and Emily Riggs of Iris & Wool at Darkan Sheepfest. PHOTO: Caro Telfer, Photographer.

Wool showcased at WA's Darkan Sheepfest

AWI was a proud supporter in February of Darkan Sheepfest 2023 in the southern wheatbelt of Western Australia, which this year had a record crowd of more than 2,800 people. The event's theme was 'Putting Wool Back on the Table' which highlighted how wool is at the forefront of the local agricultural industry in Darkan and the surrounding area.

With support from AWI, Emily Riggs of Iris & Wool travelled to Darkan Sheepfest as a special guest to deliver a keynote speech and shine a light on wool. Western Australia local Steve Noa of Themerinopolo, which produces a range of Woolmark-certified Australian Merino wool polo shirts, was also a special guest.

They shared their passion for wool and their personal stories of bringing wool to Australian consumers. Both animated and at times emotional, it made for a unique broadcast around the entire showgrounds.

In addition, AWI at Darkan Sheepfest supplied wool garments for display in the Sheepfest fashion show, supported the shearing and wool handling competitions, and showcased the AWI sheep delivery module with local engineering firm RW Engineering.

WYNDHURST KNITWEAR: TRACEABLE WOOL FROM THE FAMILY FARM

Woolgrower Jonathan Byerlee of Wyndhurst Estate on the eastern side of the Flinders Ranges also runs a knitwear brand that uses Merino wool that is fully traceable all the way from his family's historic farm through to the final knitted products.



Wyndhurst Knitwear's range currently comprises jumpers and scarves made using Merino wool from the Byerlees' family farm.

The story of Wyndhurst began with one of Jonathan's ancestors, John Fisher, when the Orroroo district of South Australia was settled in 1876

John Fisher had planned to move his wife Susannah and children to the farm at Eurelia, but he tragically died of exhaustion just after building his house on the property. Despite the hardship, Susannah had little choice but to go ahead and still move to the farm 320km away, on horse and cart with their nine children...

Nearly 150 years later, the Wyndhurst Estate at Eurelia, which nowadays is a quick four hours' drive north of Adelaide, is home to Susannah and John's sixth generation descendants.

Jonathan Byrlee farms the 1,100-hectare property, running 650 SRS Merinos with 17.5-micron wool. Jonathan follows organic farming principles, with the property's soil health maintained with no synthetic chemicals or fertilisers.

Respecting the past and the future

To create an additional income stream for the business, in 2020 Jonathon set up Wyndhurst Knitwear, a brand which is inspired by the generations of Byerlees who have lived and worked on the property.

Jonathan says every product stays true to the simplicity and elegance of a bygone era, blending the vintage with the contemporary.

"Wyndhurst Knitwear is truly Australian and represents the hardworking farmers of the land, a homage to slow fashion, ecological awareness and great style," Jonathan explained.

"When establishing the brand, we took a stand to return to the quality and craft that so many of us value and love. Our garments are made to last for generations not just one season.

"We offer high-quality, stylish and practical knitwear products – jumpers and scarves for men and women – that are produced entirely within Australia and New Zealand."

Importantly for Jonathan, all the brand's wool is sourced directly from the family farm.

"Our traceable supply chain journey begins with our beloved Eurelia soil and sheep in our heartland of South Australia. It travels to the Macedon Ranges of Victoria for processing, before being spun into yarn in New Zealand, and then knitted into garments with beautiful stitch structures and sophisticated detail by Knovus in Melbourne," Jonathan said.

Below: The founder of Wyndhurst Knitwear, Jonathan Byerlee, with his father Brenton.

"The short distance of our supply chain enables our clothing to have a low carbon footprint and the full visibility of the supply chain allows us to ensure best practice across every process.

"We are this year also starting to supply other clothing companies with our fully traceable yarn."

Eco-friendly seamless knitting technology

The Wyndhurst Knitwear jumpers are knitted completely whole, using the latest in innovative Shima Seiki 3D seamless knitting technology.

"By knitting our garments whole, we remove seams to increase comfort for the wearer," Jonathan explained.

"3D knitting also removes waste in garment construction, and allows us to produce in small batches to satisfy demand only, thereby eliminating any surplus production stock."

It's technology that the past generations of women of Wyndhurst Estate that knitted for the family wouldn't recognise. But they would certainly recognise the brand's colour palette, drawn from the Wyndhurst Estate and reflecting the rich burnt orange of the soil, deep greens of the shrubs and eucalypts, and moody greys of the rare stormy skies – colours that have been present there for generations.

More information: www.wyndhurst.com.au



MODERN MERINO: WOOL GROWN ALONGSIDE NATIVE FLORA AND FAUNA

Modern Merino is a family owned and operated brand that last year launched a range of luxury products made from superfine wool grown on the Atkinson family's own property in South Australia.



Modern Merino's waffle baby blanket and herringbone throw.

oolgrowers are understandably often curious to discover what product their own wool ends up being used in. While increased traceability through the supply is helping more woolgrowers find out, Chris Atkinson and his wife Tarlee have gone one step further and last year created their own brand, Modern Merino, that uses wool grown by their own sheep.

The Atkinsons run about 5,000 superfine Merinos across two properties, one in the Adelaide Hills and one in Kangaroo Island. Chris's parents, Peter and Sue, bought the original 32-hectare block in the Adelaide Hills in 1985, four years before Chris was born, and started out with 200 Merino wethers. Fast forward 38 years and the whole operation now consists of 1,865 hectares between the two properties.

After Chris had finished school, he did his wool classing certificate and in the next couple of years decided growing wool was the career path he wanted to pursue. Chris and Tarlee now undertake most of the operational management of the two farms. They also now have two children of their own, Alexis and Kaiden, who may one day continue to develop the family farming business – and also perhaps expand their nascent Modern Merino brand.



Woolgrower Chris Atkinson with Merino fleece at the family property in South Australia.

Modern Merino brand

The Atkinsons had always thought about creating their own brand, but it was during COVID that the family really started to put their plans into action, and in July last year launched their husiness

They currently sell Merino throws, baby blankets, scarves and shawls, made from their homegrown non-mulesed 17-micron Merino wool. They predominantly sell online via their brand's website.

"The scarves and shawls are made with an open weave making them lightweight. breathable and comfortable. They are a stylish addition to your summer wardrobe, and can be worn as an accessory from beach to bar, while the soft Merino wool ensures that you're warm enough on colder nights," said Tarlee.

"Our baby blankets and throw blankets are both made in herringbone and waffle versions. The Merino wool yarn we use is very fine, resulting in a product that is soft, light and

"Being a young business, our range is still fairly small, but we hope to continually grow the range and add exciting new items in the future "

To emphasise the products' Australian origin, the Atkinsons have their products woven in Tasmania. Modern Merino is Australian owned. Australian grown, and Australian made.

Wool grown alongside nature

In the brand's marketing, the Atkinsons raise awareness of the eco-credentials of Merino wool – a 100% natural, biodegradable and renewable fibre. But they also highlight that the wool in their products is grown alongside nature on their farm.

Chris says the core values on their farm have always been focused on looking after the native flora and fauna, and treating all animals domesticated or not with respect and care.

"For example, 23% of our Kangaroo Island property consists of native bushland which we do not graze; it is left entirely to the native flora and fauna. And on our Adelaide Hills property, we have planted thousands of native trees and shrubs, and fenced off 30-hectares of waterways and gullies to prevent erosion and provide homes to the native fauna," he said.

"We also have a fenced-off 30-hectare bush block, which is one of the few remaining natural areas in the eastern Adelaide Hills. We often receive visits from various government, university, and private organisations to view and monitor the rare flora on the block. Both properties are home to thousands of native birds, animals and reptiles which are all fully protected."

The property is carefully managed with rotational grazing and the Atkinsons very carefully manage wildlife and conservation corridors of native forest and scrub on their property.

To improve working conditions for wool harvesting staff, the Atkinsons have also done a full upgrade of their shed on Kangaroo Island incorporating the AWI Shearing Shed design.

More information: www modernmering com au

Historically wool has been used in many Royal events – and the Coronation of HM King Charles III last month in London was no different, which was particularly fitting given that as HRH The Prince of Wales he launched and has been Patron of the Campaign for Wool since 2010.



In the week before their historic Coronation Day, King Charles III and Queen Camila unveiled new photos by Hugo Burnand of The King wearing an Anderson & Sheppard wool suit and Queen Camilla wearing a blue wool crepe coat dress by designer Fiona Clare.

Wool featured prominently during the Coronation Service at Westminster Abbey as well as in the magnificent processions between the Abbey and Buckingham Palace. From the ceremonial uniforms of the military personnel to the formal suiting of the guests, most of the fabric on view would have started out as fibre growing naturally on a sheep's back, and primarily Merino due to its fineness, softness and drape.

And away from the formality of the events in London, there was also, as expected, a vast array of commemorative wool products and keepsakes available for the public to buy: from throws to picnic blankets, cushions to scarves.

At Savile Row and its surrounding neighbourhood – the heart of sartorial elegance in London and indeed the world – the Campaign for Wool came together with Savile Row Bespoke and its supporters to celebrate the Coronation with the creation of red, white and blue wool bunting.



Wool bunting being installed on Savile Row at Holland & Sherry (established in 1836).



Racks of ceremonial uniforms at **Gieves & Hawkes** (established in 1771).

"Savile Row has had a very long relationship with The Royal Household," said Chair of Savile Row Bespoke, Anda Rowland.

"To celebrate the Coronation of His Majesty King Charles III, the cutters and tailors put their skills to work to create bespoke wool bunting from remnant Melton cloth from AW Hainsworth – a British mill with a remarkable heritage across the decades and especially with the military uniforms.

"With over a mile of wool bunting, it will hang from 100% wool rope, from Sustainable Rope, ensuring the bunting will be completely biodegradable, plastic-free and reusable."

In addition to the wool bunting there were celebratory window displays across Savile Row and surrounding tailors, highlighting the positive benefits and natural properties of wool, including wool's longevity with iconic and historic military garments alongside garments made for King Charles III.

Wool also featured at the Coronation in several non-apparel items. One particularly important and sacred example was the anointing screen which was visible to millions across the world at a key moment in the Coronation ceremony: the anointing of The King with holy oil, which took place before the investiture and crowning of His Majesty.



The **anointing screen** used during the Coronation Service was made using Australian and New Zealand wool. **PHOTO**: Press Association

The main fabric of the anointing screen is made of wool from Australia and New Zealand, woven and finished in UK mills. The central design takes the form of a tree which includes 56 leaves representing the 56 member countries of the Commonwealth. The threads used in the design are from the Royal School of Needlework's famous 'Wall of Wool' that it has collated over the years.

King Charles III has always passionately endorsed the natural benefits and use of wool, issues he first raised more than 50 years ago when witnessing the introduction of mainstream plastic use.

In 2010, he initiated the Campaign for Wool to raise awareness amongst consumers about the unique, natural, renewable and biodegradable benefits offered by the fibre. The Campaign has helped reconnect markets with the fibre's myriad uses – from beautiful hardwearing interior products to luxurious fine and soft wool apparel.

As Patron, over the past decade of the Campaign, the then Prince of Wales visited Australia, New Zealand, Canada, South Africa and numerous regions of the UK to engage with woolgrowers on how best to explain the distinct environmental benefits of wool in all its and uses.

More information: www.campaignforwool.org See report on page 58.



In good news for the wool industry, references to the incomplete Product Environmental Footprint (PEF) methodology have been omitted from the European Commission's newly released proposal to stop misleading green claims by companies.

On 22 March, the European Commission (EC) published its proposal for a Green Claims Directive which contains its plans to protect consumers in the European Union from greenwashing.

The proposed new rules are aimed at stopping companies from making misleading claims about the environmental merits of their products and services and allow consumers to make informed environmental choices.

In a win for wool and other natural fibres, the EC decided against directing companies to substantiate their green claims using the Product Environmental Footprint (PEF) methodology – an incomplete tool that disadvantages natural fibres when measuring impacts of apparel and footwear. The proposal states that environmental claims should "rely on recognised scientific evidence and state of the art technical knowledge".

PEF and the Make the Label Count campaign

The PEF is a project that the EC has been working on for a number of years. Its aim was to introduce environmental labelling on apparel products for sale in the European Union. Whilst the intent is laudable, the PEF methodology, counterintuitively, scores apparel and footwear products made from wool and other natural fibres poorly compared to synthetic fibre products.

This is because the PEF methodology is narrowly drawn and fails to adequately take account of key sustainability considerations for the fashion industry, such as the benefits of using natural, renewable and biodegradable raw materials. Based on life-cycle assessment (LCA) principles, PEF does not account for the formation of the oil and natural gas from which fossil fuel fibres are made, whereas all the impacts of forming natural fibres are accounted for in PEF - resulting in an inequitable comparison. As such, the PEF risks misleading consumers about the impacts of their apparel and footwear products, and ultimately undermines the EC's sustainability objectives.



Make The Label Count campaign spokesperson and Secretary General of the International Wool Textile Organisation, **Dalena White**.

In response to the development of the PEF, AWI in 2021 joined with international natural fibre organisations and environmental NGOs to launch the campaign called Make the Label Count to try to ensure consumers receive credible information and prevent the introduction of inaccurate and poor environmental scores for natural fibres such as wool on clothing labels across the EU.

New proposal welcomed

The Make the Label Count campaign welcomes the European Commission's new proposal for a Green Claims Directive.

"The Make the Label Count campaign is pleased to see that what we've been advocating for has come to fruition – references to the PEF method have been removed from the Commission's proposal, with only a methodology based on scientific evidence serving as sufficient criteria," said campaign spokesperson and Secretary General of the International Wool Textile Organisation, Dalena White

"The European Commission has clearly recognised the shortcomings of the PEF methodology and the need for further improvement prior to adoption."



The Make the Label Count campaign mark incorporates symbols which reference the main concerns being raised with policy makers, clockwise from top left: (1) Renewability and biodegradability, (2) Equitable comparison of fibres, (3) Duration of service, (4) Social impacts, (5) Production practices, (6) Accounting for microplastics.

The EC is seeking feedback on its proposal for a Green Claims Directive until 22 June. The proposal will then enter a long process where it's debated by all 27 Member States of the European Union and the European Parliament before it takes its final form.

"Further clarity is needed on several aspects of the proposal. We'll continue advocating to ensure the PEF is not inserted back into the final law, until it is made fit for purpose. The directive will likely not enter into force until mid- or end of 2024 after which Member States would have two years to transpose the Directive into national law," Dalena said.

"We remain committed to working with lawmakers to ensure the final text is consistent with the European Union's environmental objectives and the transition to a circular economy. Make the Label Count urges policy makers to be ambitious and act quickly in adopting the proposal."

AWI has undertaken and continues to undertake a range of scientific research to support the wool industry's environmental claims, which not only assists the Make the Label Count campaign but also helps AWI's marketing arm The Woolmark Company to promote the eco-credentials of Australian wool

More information: www.makethelabelcount.org

FARM VISIT HELPS BRAND SHOWCASE AUSSIE WOOL

The founders of Canadian company Simply Merino, which produces classic everyday apparel made from 100% Australian Merino wool, recently visited Australia to learn more about how the wool they use is grown. The visit will help them educate their customers about the provenance and benefits of their products.



Alex Moret and Shannon Dixon of Simply Merino, with their two children during their trip to Australia.

Cimply Merino is a family owned and Operated company that was founded 12 years ago in Vancouver on the west coast of Canada. They produce a collection of baselayers and everyday wear - such as tops, pants, dresses, underwear and accessories - all made from 100% Australian Mering wool

"Our mission is to produce well made, beautiful and functional garments for everyday and outdoors. The range is very simple, we want the natural qualities of the Merino wool to speak for themselves," said Shannon Dixon of Simply Merino.

Shannon says the business is enjoying strong and sustainable growth in demand.

"Our brand has grown progressively and organically every year since its launch, due to the story behind the brand, returning customers and word of mouth. In the past few years, a lot more companies have begun making products out of Merino wool, so it certainly feels as though the demand for Merino apparel is growing in North America,"

Simply Merino is committed to transparency in its supply chain, animal welfare, sustainability and business practices.

"Since the brand was launched, I've really come to understand the importance of being transparent with customers about where and how our products are sourced and manufactured. Consumers really want to know the behind-the-scenes story of the product," Shannon said.

On the farm

AWI put Simply Merino in touch with one of the wool-growing businesses whose wool has been used in the brand's products: the Blackwell family of 'Corea' near Dunkeld in south-west Victoria. In April, Shannon and Alex and their two children travelled Down Under to spend a couple of days on the farm with the Blackwells.

Management of 'Corea' is a combined family operation. Woody and Rachel, Charles and Rebecca, and their young families are responsible for the management and the day-to-day operations of the farm, including looking after their non-mulesed Merino flock. Woody and Charles' parents, Bill and Cee, are also actively involved.

"We were excited to be able to show Shannon, Alex and their family a small snapshot of the day-to-day production system that we run at Corea and hope that we can get the good stories about wool production out there and better help end users of our fibre understand the primary production side of the supply chain." Charles said.

The Blackwells have always had a focus on sustainability and regenerating their land. They allow paddocks to recover and regrow after grazing; native vegetation and newly planted wildlife corridors provide valuable shade and shelter for stock and support diversity creeklines contours wetlands and waterbodies have been fenced to exclude stock and have been planted with diverse flora.

The Blackwell family works hard to balance the environmental work with an intensive livestock system. In recent years, they have seen large productivity gains, all while maintaining their commitment to environmental principles.

"Our commitment to genetics, producing a modern Merino with no mulesing over a large ewe base, combined with changes to water systems, pasture and grazing systems and the introduction and use of new technologies, has seen us significantly increase our stocking rate, without compromise to our environmental work," Charles said.

Inspirational visit

Shannon says her family loved their time visiting the Blackwells and hopes to continue a friendship with them for a long time.

"I was so very grateful to see first-hand all the work that goes into wool-growing. It was a wonderful experience to learn about the family's values, how they work to make their land better for the next generations and how they treat their animals with respect and integrity. They have the same values that we share at Simply Merino," said Shannon.

"The Blackwell family really wants to get their good story about wool out to consumers, so they appreciated us coming to learn from them. Plus, it was so special to be able to show the family some of the beautiful Simply Merino products that we've made from their wool."

Shannon also had the opportunity on the trip to visit ABMT in Melbourne to see how Australian Merino wool is circular knitted into fabric before it is shipped to Simply Merino in Vancouver where the garments are then manufactured by the brand.

"We want to continue to make clothes using only the best materials, and our visit to Australia has reaffirmed our belief that the best is Australian Merino wool," Shannon added

More information:

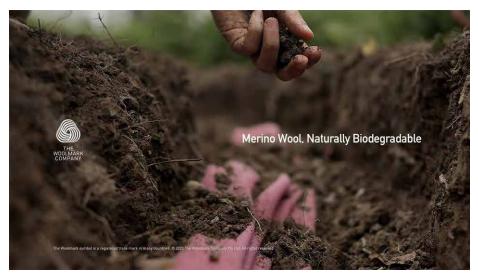
www.simplymerino.ca

Hear more from Shannon Dixon in Episode 245 of AWI's The Yarn podcast at www.wool.com/ podcast



HIGHLIGHTING WOOL'S BIODEGRADABILITY

A marketing campaign launched in China by The Woolmark Company on Earth Day in April highlighted wool's biodegradability to a country that is paying more and more attention to sustainability issues.



Imagery used in The Woolmark Company's campaign that highlights the link between the fibre composition of wool clothes and their minimal impact on the environment.

To raise awareness of how wool can play its part in regenerating the planet, the marketing campaign in China highlighted that wool is a 100% biodegradable fibre which returns to nature when buried in soil, thereby contributing to a sustainable *circular* model of textile production that minimises waste and pollution.

In contrast, synthetic fibres do not biodegrade but instead accumulate in landfill and release microplastics in our oceans or on our land. Synthetic fibres are therefore more aligned with an unsustainable *linear* model of textile production with waste and pollution.

For the campaign, The Woolmark Company partnered with immersive theatre Sleep No More's Shanghai-based production team to create a two-minute video, titled 'Return', that was a tribute to nature... and Merino wool.

In a forest once ravaged by wildfires in south-west China, the performers, who are clothed in 100% natural plant-dyed Merino wool garments, make their way through the charred landscape, confronting the earth's deteriorating environment. As a conclusion to the video, all the performers remove and bury their Merino wool garments in the soil, calling on viewers to live with nature by choosing Merino wool.

The Woolmark Company will retrieve whatever is left of the garments from the soil in a few months' time, demonstrating the rapid rate of Merino wool's natural biodegradation in soil. Wool has been scientifically shown to degrade in a matter of months and release valuable nutrients back into the earth, improving the health of the soil and fostering biodiversity – see the right-hand column.

AWI Country Manager for China, Jeff Ma, says sustainability issues are becoming increasingly important to consumers in China.

"This new marketing campaign aligns with The Woolmark Company's strategy to highlight to consumers the natural eco-credentials of wool and the importance of fibre consideration in consumers' purchasing decisions," he said.

"The campaign complements the award winning 'Nest Starter' campaign that we ran in China last year in which hundreds of wild bird species lined their nests with wool in preparation for the breeding season. Both campaigns serve as a testament to wool's exceptional properties as a fibre rich with ecocredentials that harmoniously coexists with nature "



Wool readily biodegrades in moist, warm conditions

Wool is made of a 100% natural biodegradable protein called keratin, similar to that found in human hair. When a wool product reaches its end-of-life and is disposed of in soil, the wool fibre is naturally broken down by microorganisms and readily decomposes in as little as three to four months. The rate of decomposition varies depending on the soil, climate and wool characteristics, but some studies have found marked weight loss after only four weeks' burial in soil.

Wool returns essential nutrients to the soil

The decomposing wool slowly releases valuable nutrients such as nitrogen, sulphur and magnesium back into the soil, which act like slow-release fertiliser for uptake and growth by plants. This is known as natural closed loop recycling, restoring the initial inputs of soil and grass. The products do not pose any environmental hazard.

Wool enhances soil's water retention capacity

Burying wool in the soil enhances the soil's water retention capacity, water infiltration, and soil permeability while reducing soil erosion.

Wool biodegrades in a marine environment

Wool readily biodegrades in a marine environment and does not contribute to microplastic pollution.

Note: Thanks to the unique chemical structure of keratin and wool's tough, water-repellent outer membrane, clean and dry wool fibres do not readily degrade. This allows wool products to be resilient and long-lasting in normal conditions.

CHINA BUSINESS OPENING UP AGAIN AFTER COVID

After three years of strict COVID pandemic control, the economic prospects for wool in China are looking up. Wool processing capacity has expanded, consumer spending on wool is forecast to increase, and face-to-face business meetings are happening once again.



AWI CEO John Roberts (left, centre), with AWI Country Manager for China Jeff Ma and AWI Trade Consultant Scott Carmody meeting in April with representatives of the Nanjing Wool Market: Ms Jiang Yali, Madam Yang and Mr Jiang Chen.



Nancy Zhai, Deb Langford, Li Jun, Jeff Ma, Leah Cuttriss and Junny Zhu during the visit to the Wool Education Centre.

AWI CEO's visit to China

In April, AWI CEO John Roberts visited China for a productive week in which he met with industry groups including the China Wool Textile Association and the Nanjing Wool Market as well as with senior executives of key companies that process Australian wool. It was the first time an Australian-based representative from AWI had managed to visit China in almost four years, due to the restrictions caused by the COVID pandemic.

"Right through COVID and despite the lockdowns, the Chinese wool industry was still able to support Australian woolgrowers and the domestic trade more broadly, so it was important for me to visit China as soon as possible and thank the Chinese processing sector on behalf of our stakeholders. It was a message that the Chinese very much appreciated," John said.

China's wool industry expands

The first part of John's trip involved visiting two major processing hubs, Zhangjiagang and Tongxiang, where the majority of the Australian wool clip is first processed.

"The meetings were with the biggest top makers in China. All of them reported an expansion of their processing facilities, which is really encouraging. That optimism is also reflected in many of the second-tier processors who are also looking to expand or already did so during COVID," he said.

"Overall, the expansion in plant capacity is incredible. A few years ago, only two or three

top making plants had the capacity to process more than 10 million kilos. That number has increased significantly.

"There is an underlying confidence in China and a quiet determination to expand. There is a belief that more and more Chinese consumers are going to want to wear wool, so the 50% of wool from Australia that now stays in China is going to increase each year. That's also the view of the China Wool Textile Association."

Increased awareness of sustainability

John says there have been major changes in both consumer and industry attitudes in China towards environmental issues.

"There has been a massive shift towards traceability and the concept of sustainability has escalated at a rate I hadn't quite expected," he said.

"Companies haven't expanded their factories just on a hunch, they've done their research. They understand that the Chinese consumer wants a naturally sourced fibre and they're getting a similar message from their overseas customers too, particularly with the rising spending power of Gen Z. Companies are emphasising the natural, biodegradable qualities of wool because it is a strong selling point.

"Another trend is that Chinese consumers are now increasingly buying local brands and designers, which is a massive shift from 10 to 15 years ago when it seemed everybody in China wanted the Burberry check and the Louis Vuitton imagery."

Australian Embassy delegation visits Wool Education Centre

In March, the Minister Counsellor–Agriculture from the Australian Embassy in Beijing, Ms Deb Langford, and her colleagues Agriculture Counsellor Ms Leah Cuttriss, and Senior Policy Officer Ms Nancy Zhai visited the Woolmarkpartnered Wool Education Centre (WEC) in Donghua University, Shanghai.

They were the first guests that the WEC had welcomed since COVID-19 restrictions were lifted and were warmly greeted by The Woolmark Company's China team and Mr Li Jun, Dean of Shanghai International College of Fashion and Innovation, Donghua University.

During the visit, AWI Country Manager for China, Jeff Ma, informed the delegation about the company's marketing projects and strategy in China. AWI Technical Manager Junny Zhu showed them the latest Merino wool innovations, including wool uniforms for the finance industry, the Optim™ jacket, Merino seamless yoga apparel, wool velvet jacket, wool shoes and socks, and more.

The delegation had an in-depth discussion with the team about sustainability along the supply chain. Ms Langford praised the company's marketing endeavours and spoke highly of the innovative Merino wool products she saw and believes that they bring great potential to broadening the application of Merino wool, as well as increasing consumer appeal.

The WEC, which opened in 2018, provides students with an innovative way to learn about the versatility of Australian Merino wool.



36 people from 13 companies attended the event held at Xinao Textiles in collaboration with The Woolmark Company.

Chinese supply chain seminar and tour

In March, The Woolmark Company and Chinese knitwear manufacturing giant Xinao Textiles held a seminar and tour in Zhejiang province for brand partners and independent designers.

The event started with a Merino Wool Trends and Innovation seminar, at which The Woolmark Company presented on the topics of wool consumption trends, The Wool Lab sourcing guide, wool as a sustainable and traceable fibre, and Woolmark certification – while Xinao shared their colour palettes and wool yarn trends.

There followed an on-site tour of Xinao's wool top and yarn processing line, from raw wool, blending, scouring, carbonising and carding to top making and spinning.

There was also a visit to the Woolmark-partnered Xinao Knitwear Development Centre at which visitors were able to see the advanced knitting machines, wool swatches and garments on display. The Knitwear Development Centre comprises three main sections: a Research and Development unit, a training and education department, and fully equipped textile testing laboratories.

Through this event, brand owners explored a deeper understanding of the origins and natural benefits of wool, encouraging them to keep the fibre top of mind in their research and development and collections, in addition to considering the long-term benefits of becoming a Woolmark licensee.

Tapping into the growing popularity of urban sports in China, The Woolmark Company has collaborated with urban athletic-wear brand An Kao Rau to help educate young consumers about the natural performance benefits of Merino wool and increase demand for the brand's latest Merino wool collection.

The Woolmark Company's collaboration with An Ko Rau has delivered cleverly detailed and technologically advanced Merino wool garments that are proving to be a hit in China's thriving urban sports scene.

An Ko Rau has a strong presence on social media which it skilfully uses to market its garments. Capitalising on this, AWI in February released a short video of a flag football match featuring players wearing An Ko Rau's latest Merino wool apparel. The video highlights that the Merino wool garments have superior performance benefits, such as moisture management and elasticity, as well as being suitable for a contemporary and healthy lifestyle.

Meaning 'perpetual motion' in the international language Esperanto, An Ko Rau is the perfect name for the brand which, embracing Merino wool, highlights enduring sporting performance.

"This collaboration is helping educate young, fashionable and sporty consumers in China about the natural benefits of Australian Merino wool and, importantly, increase the availability and purchasing of apparel made from the fibre," said AWI Country Manager for China, Jeff Ma.

"Outdoor sports are increasingly being adopted by city dwellers in China. The latest collection from An Ko Rau pushes the boundaries of sportswear, highlighting the natural versatility of Merino wool to enhance performance and functionality in both sportswear and casualwear, making it a fashion must-have amongst millennials in China."

An Ko Rau is the sports brand of multi-brand platform ZUCZUG, which was founded in 2002 in Shanghai and is now a B Corp certified company meaning that it has demonstrated high environmental and social performance. Reflecting this, the ideology of An Ko Rau is all about connecting sports with nature, which makes Merino wool – a natural, biodegradable and renewable fibre – an ideal choice for the brand.



An urban sports video in China by The Woolmark Company promoted Merino wool apparel from local brand An Ko Rau.

GLOBAL ONLINE RETAILER SHOWCASES WOOL

With more and more apparel purchases being made online, AWI's marketing arm The Woolmark Company has again collaborated with one of the world's largest luxury online retail platforms, Farfetch, during the northern hemisphere autumn to highlight some of the season's best wool apparel for women and build demand for the fibre.

HIGHLIGHT RESULTS

- 14 million impressions
- 81,000 clicks to shop
- 181% increase in customers purchasing wool (2022 Q3 vs Q4)
- 37% YoY uplift in wool sales (2019 vs 2022)
- 88% uplift in 'wool' and 'Merino' searches (pre vs post-campaign)

SPOTLIGHT ON: FALL'S WOOL ESSENTIALS

Wool womenswear was featured on the hugely popular Farfetch online retail platform during the recent northern hemisphere autumn.

"Bright colours or fall tones, light knits or chunky styles: wool is fashion's most versatile fabric. With 100% natural, renewable and biodegradable and recyclable benefits, Merino wool is environmentally friendly and wardrobe smart."

Farfetch

aunched in 2008 and headquartered in London, Farfetch is a leading global platform for the luxury fashion industry. It provides its customers with access on a single online retail platform to an extensive selection of products from more than 1,400 of the world's best brands, boutiques and department stores. Farfetch has about four million active customers from more than 190 countries.

More than two-thirds of Farfetch customers are millennial/Gen Z. This audience is younger than the average luxury consumer and will fuel the growth of the luxury industry into the future.

The Woolmark Company's first collaboration on a marketing campaign with Farfetch was in 2017. This was the start of a successful and lasting relationship between the two companies, which over the years has resulted in the launch of four further joint marketing campaigns, the most recent being for the 2022 northern hemisphere autumn season.

"AWI and our marketing subsidiary The Woolmark Company have an increasingly strong focus on driving sales of Australian wool products through engaging and impactful e-commerce partnerships," AWI CEO John Roberts said.

"This latest partnership with online giant Farfetch is yet another example of how we are working to engage with a younger luxury audience who will propel wool sales now and into the future.

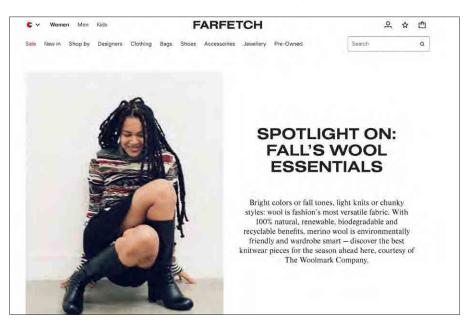
The recent campaign with Farfetch included a wool feature that enabled its customers to be inspired by creative and educational editorial about the benefits and eco-credentials of wool. Importantly, customers were then guided along a pathway to purchase new wool garments

The campaign received 14 million impressions, which is the number of times that the campaign was seen online. Display and social amplification activity successfully drove customers to the editorial story, with traffic increasing by 31% compared to the precious year's campaign.

More than 81,000 people clicked through from the campaign to the shop. Many were totally new visitors to wool products on Farfetch, demonstrating that the campaign attracted a new audience to wool.

The initiative targeted Farfetch's global fashion-forward womenswear audience, featuring aspirational wool products including classic knitwear, modern dresses and trousers, smart suiting and essential separates. The campaign was particularly successful in engaging audiences from the USA and the UK.

More information: www.farfetch.com



WOOL SHINES IN THE LAND OF THE RISING SUN

With a population of 125 million people and the third largest economy in the world, Japan has an established history as a key consumer market for products made from Australian wool. Read on for a snapshot of two recent marketing collaborations undertaken there by The Woolmark Company.



Thanks to the successful results of past collaborations with The Woolmark Company, Onward Kashiyama expanded the promotion of its wool products to also include coats as well as knitwear.

Onward Kashiyama

Onward Kashiyama is the third largest Japanese apparel group with annual sales of A\$1.78 billion in 2021. AWI has been building a good relationship with Onward since 2018 when AWI arranged for two of the Japanese group's general managers to visit wool-growing properties in Australia.

The visit has led directly to an increased use of Australian Merino wool by Onward's brands, and Onward undertaking marketing campaigns in Japan with AWI subsidiary The Woolmark Company, initially in 2019.

The latest collaboration ran for two months during the recent autumn/ winter season, promoting 55 styles of Merino wool knitwear and coats from Onward's five largest womenswear brands. There was a 22% increase in the number of Woolmark-certified items for sale compared to last year's campaign.

"It is very rewarding to see the effort that AWI puts into educating and inspiring brands about Australian Merino wool is resulting in the brands increasing their use of the fibre in their apparel ranges," said AWI Regional Manager Japan & Korea, Samuel Cockedey.

This year's campaign led to impressive sales that were 26% higher in value than the project's target.

"We are very grateful for the opportunity to work with The Woolmark Company again, and to have continually achieved good sales results as we did in 2019 and 2021. The quality of our products is of utmost importance to us, which is why we believe that collaboration with The Woolmark Company and Woolmark certification is of great significance," said Onward Kashiyama Executive Officer, Mr Kazuhito Kobayashi.

The collaboration focused on increasing online sales by driving traffic to a dedicated landing page on Onward's e-commerce platform. Aggregated engagement through media activations was 178% above the project's target. The campaign also gained additional visibility through displays in 350 of the brands' brick-and-mortar stores across Japan.



The marketing collaboration with Nano Universe resulted in an exceptionally high sell-through rate for the Merino wool knitwear products that the brand promoted.

Nano Universe

N ano Universe is a major multi-brand retailer belonging to TSI Inc, the fifth largest Japanese apparel group. With sales worth A\$110.6 million in 2021 (half via e-commerce), Nano Universe sells quality casualwear to young women and men.

The Woolmark Company has collaborated with Nano Universe in the past (2016-18) with good results and so once again undertook a marketing collaboration with the brand during the most recent autumn/ winter season. The marketing focused on promoting the 'anti-pilling' qualities of Nano Universe's Woolmark-certified knitwear. It included the production of a short YouTube video to explain the products' performance.

The campaign lasted for two months and involved a dedicated shoppable campaign page on Nano Universe's e-commerce platform featuring the products' easy-care attributes, comfort and versatility – very relevant messages for Japanese consumers.

A social media campaign was undertaken to generate awareness and drive traffic to the website, resulting in a 60% higher number of impressions (the number of times the campaign was seen) than the target, and an impressive 307% higher engagement than the target.

In addition to the digital and social media marketing, in-store displays featured in all 37 of the brands' brick-and-mortar stores across Japan.

Nano Universe was very pleased with how well the products sold.

"We place a high priority on the sell-through rate of products and, even though the production volume of our 'anti-pilling knitwear' was the largest compared to our other products, we achieved a much higher sell-through rate than average," said Men's PR at Nano Universe, Mr Ryota Yamauchi.

"We believe this is largely due to enrichment of our digital content for anti-pilling knitwear with The Woolmark Company's support."

Following the commercial success of its 100% Merino wool swim shorts launched last year in collaboration with The Woolmark Company, iconic French swimwear brand Vilebrequin has this year expanded its range. This proves the triumph of not only Merino wool's versatility but also The Woolmark Company's brand partnership strategy.



Soft next to the skin but resistant enough to handle the ocean, the Woolmark-certified Merino wool swim shorts from French swimwear brand Vilebrequin highlight the true versatility of Merino wool.

In its pursuit of finding new markets for Australian wool, AWI subsidiary The Woolmark Company last year teamed up with Vilebrequin to launch a set of Woolmark-certified swim shorts; and so pleased was Vilebrequin with the retail sales that the brand has this year added two more 100% extra-fine Merino wool swim shorts to its collection. More products are also under development.

"This is a real success story for Australian wool," said AWI Regional Manager Western Europe, Damien Pommeret.

"Our collaboration with Vilebrequin introduced the brand to the versatility and benefits of Merino wool which resulted last year in buoyant sales of the swim shorts during the northern hemisphere summer. The brand is now not only continuing its investment in wool products but expanding its investment.

"Furthermore, the project received high visibility with other swimwear and beachwear brands who are also now considering using wool in their own collections.

"This is an example of how a one-off investment by The Woolmark Company in a brand partnership continues to build demand for wool in future years, providing long-term benefits for Australian woolgrowers."

Vilebrequin is a French luxury brand specialising in swimwear and ready-to-wear for men and women. The brand opened its first

store in 1971 and today has a global presence in more than 60 countries.

Fusing its 50+ years of tailoring know-how with an endless flair for experimenting, Vilebrequin played with the idea of a 'suit made for swimming', letting the quality and technical attributes of Woolmark-certified Super 120's Merino wool from REDA's Active collection really shine through.

"I was immediately impressed by Merino wool's remarkable quality, and the naturally chic way it hangs on the body. It's the perfect example of eco-innovation, a fabric that's both cuttingedge and uniquely elegant," said Vilebrequin CEO, Roland Herlory.

The shorts are not only perfect for being in the water. After swimming, the shorts can dry quickly in 5 to 7 minutes, which according to Vilebrequin is much quicker than the target level. And while simply relaxing at the beach, the ultra-breathable, thermo-regulating and UV resistant properties of Merino wool keep the wearer comfortable under the sun.

While driven by innovation and drawn to Merino wool's performance qualities, Vilebrequin also prioritises sustainability and was attracted to the natural, renewable and biodegradable properties of wool. Being a swimwear company, Vilebrequin was particularly impressed that wool does not contribute to microplastic pollution of the oceans.



A window display promoting the Merino wool swimming shorts at the Vilebrequin store in Zurich, Switzerland.

The expanded range of shorts was launched online and in store during March, with a host of Vilebrequin international store windows – from Cannes to Marbella, from Beverly Hills to Dubai – showcasing the product. Marketing also included digital, video and social campaigns across Vilebrequin and The Woolmark Company channels.

Since 2012, Vilebrequin has been owned by the US clothing company G-III Apparel Group, which owns and licenses a diverse portfolio of more than 30 globally recognised heritage and emerging fashion brands including DKNY, Karl Lagerfeld, Calvin Klein, Tommy Hilfiger and Levi's.

More information:

www.vilebrequin.com www.woolmark.com/vilebrequin

MERINO COLLABORATION IN SCANDINAVIA

Leading Norwegian brand Cubus has increased sales of its premium Merino wool apparel in Scandinavia thanks in part to a recent marketing collaboration with The Woolmark Company.



The Woolmark-certified Merino Premium Collection from Cubus contains a versatile range of garments suitable for all occasions - from lounging to leisure.

he promotion of Cubus's Woolmarkcertified Merino Premium Collection during the recent autumn/winter season resulted in an increase in sales of 21% compared to the previous year, which the brand is very happy

The Merino Premium Collection contains a range of essential garments for the everyday wardrobe, such as underwear, singlets, T-shirts, jumpers and longs, made from 17.5-micron superfine Merino wool.

They are clothes that women and men can return to again and again because they are so durable and comfortable. The garments have an all-year-round simple and timeless style that are versatile enough to be worn at home, at the office, in the outdoors or out socialising - and their neutral colour scheme ensures that they will always be relevant and never go out of fashion.

With a long-term ethos of using natural fibres in its high-quality clothing, Cubus says it was an easy choice for the company to develop a Merino Premium Collection.

"Merino wool is 100% natural and is also a biodegradable material. It is a very important fibre for us and we have products in all our departments," said Cubus Design Manager, Nina Roana Engebretsen.

"All our Merino products are Woolmark certified, which provides an independent quality assurance to our customers and peace of mind. It is important for us that our products have durability and are made from a material that our customers have come to love."

The full collection is available online at cubus. com and at its 290 stores across Norway, Sweden and Finland.

Marketing campaign

The Woolmark Company partnered with Cubus to market the collection with a focus on educating consumers about the benefits of wearing Merino wool every day, raising their awareness of the available Merino wool products, and importantly providing them with a seamless path-to-purchase.

As well as in-store advertising, the marketing focussed on a multi-pronged TV, digital and social campaign.

TV and online display advertising provided a broad reach for the campaign to increase consumers' awareness of the Merino Premium Collection.



As well as being available to purchase online, the Merino Premium Collection is available from 290 Cubus stores across Scandinavia.

Cubus's social media channels provided inspiration as well as information about the collection. These channels were complemented by influencer marketing in which 'influencers' with a large social media presence were engaged to give the campaign a more personal approach by providing their followers with a 'recommendation' rather than an 'advert'.

A Search Engine Optimisation element to the promotion made the campaign as visible as possible on internet search engine results' pages, pointing consumers to key educational articles and product pages on the Cubus website.

The campaign was also promoted in newsletters to Cubus customers. Because Cubus has a large and loyal customer base, this was an important way for the brand to connect and promote the campaign to increase

More information: www.cubus.com

"At Cubus, we love wool!

Merino wool is particularly soft against the skin, easy to care for and 100% natural."

KARL LAGERFELD'S MET GALA RETROSPECTIVE

The iconic Woolmark Prize-winning wool coat of the late fashion great Karl Lagerfeld was celebrated at this year's illustrious Met Gala fashion event and exhibition.



Fashion designer **Karl Lagerfeld** in **1954** with his famous winning wool coat design.

The Met Gala – formally called the Costume Institute Benefit – is sometimes referred to as the 'Oscars of the East Coast' or the 'Super Bowl of Fashion'. Put simply, it is regarded as one of the world's most prestigious and glamorous fashion events.

First held in 1948, it is an annual fundraising gala held for the benefit of the Metropolitan Museum of Art's Costume Institute in New York City. An invitation is highly sought after, and its popularity is undeniable – with photos of celebrities arriving at the event splashed across mainstream as well as fashion media across the globe.

The theme and dress code for this year's Met Gala, held on 1 May, was based on the Costume Institute's spring 2023 exhibition 'Karl Lagerfeld: A Line of Beauty' which is a posthumous retrospective of the German fashion designer's work.

Both Karl Lagerfeld and his namesake brand share a longstanding relationship with wool and The Woolmark Company. The late designer first rose to fame after he was awarded (at just 21 years old) first place in the coat category of the 1954 the International Wool Secretariat prize – known today as the International Woolmark Prize – in Paris.

The win launched the start of his extraordinary career that would change the face of fashion. Karl Lagerfeld went on to use wool throughout his career at fashion house Chanel. This is an example of how an investment by the wool industry in young fashion designers can continue to pay dividends to woolgrowers for years into the future.



Canadian designer, activist and author Aurora James at the MET Gala, wearing the wool coat as reimagined by Bode.

Met Gala event

In recognition of Karl Lagerfeld's association with wool, The Woolmark Company and US fashion brand Bode – which won the inaugural Karl Lagerfeld Award for Innovation as part of the 2020 International Woolmark Prize – teamed up to reimagine Karl Lagerfeld's prizewinning wool coat from 1954, for this year's Met Gala.

A nod to the original, yellow was once again the colour of choice, with Bode working with 100% Merino wool for the modern interpretation of the twill coat. The coat was worn at the Met Gala by famous Canadian fashion designer Aurora James. It was also on display in Bode's New York City store windows during May.

"I can't believe that we both won a Woolmark Prize 66 years apart, it's such an honour to be connected to an industry legend through Merino wool," said Emily Adams Bode of BODE. "Because the Woolmark Prize was the jumping off point for Karl's career – much like my own – I wanted the iconic yellow Merino wool from his original design to be the starting point for my Met Gala look"



A toile replica of **Karl Lagerfeld's 1954** winning button-down, boat-neck wool coat, on show at the exhibition

Karl Lagerfeld exhibition

As part of the Costume Institute's 'Karl Lagerfeld: A Line of Beauty' exhibition, French luxury fashion house Balmain has created an exact toile replica of Karl Lagerfeld's 1954 winning coat based on existing drawings and photographs. It was Balmain that had produced the original coat in 1954 based on the sketches and fabric swatches that Karl Lagerfeld submitted for the competition. The replica was exhibited alongside a video of craftspeople at Balmain recreating the coat.

An account of Lagerfeld's positive experience with the 1954 wool competition is displayed at the exhibition, which is open to the public from 5 May to 16 July.

Following Karl Lagerfeld's death in 2019, scrapbooks assembled by his mother were found amid his possessions. One revealed an eight-page missive to his mother about the Woolmark award ceremony. He recalls the events of the evening, "everything unspooling again, before [his] eyes, like a film." He conveys his pride in his sketching abilities, his confidence and ease in the spotlight, and his aspirations that the prize will lead to more than financial rewards. It certainly did, Karl.

WOOL HATS PROVIDE SUN PROTECTION WITH STYLE

Australia is renowned for its hot climate – and brimmed hats are well known to provide protection against the scorching sun. The felted Australian Merino wool hats from Mason Hats are a stylish and popular choice, with the wool providing extra protection from the sun's UV rays.



 $\textit{Mason Hats' founder \textit{Holly Bowden: "Wool hats provide breathability and excellent UV protection."}$

Launched in 2016, Mason Hats is a popular hat brand based in Tasmania and run by a husband-and-wife team, Jaye and Holly Bowden. With Holly's grandmother a renowned milliner in Western Australia, hat making genes are in the family.

Australian Merino wool is also in the family's genes – Holly's parents own the fashion brand Smitten Merino – so Holly already knew about the incredible natural qualities of Merino wool and wanted her hats made from the fibre.

Growing up in Australia with its long sunny days, Holly is passionate about creating hats that provide great protection from the sun, but don't compromise on style.

Australian Merino wool

In addition to the hats having a sturdy wide brim to keep you protected from the sun, wool provides excellent protection from the sun's UV rays, absorbing radiation from across the entire UV spectrum, much more effectively than many other materials.

"Our Australian superfine Merino wool hats are timeless and classic yet chic and statement. But in addition, they are breathable and the UV protection housed in the wool fibres means the hats give our customers' faces the best chance of protection in the most stylish way," Holly said.

"We use only the best quality superfine Merino wool from Australia to ensure our hats last and are able to endure the elements.

"Mason Hats stand out among the rest due to their squashability for travelling, adjustable sizing, and their waterproof and breathable properties thanks to the incredible wool fibre.

"I believe there is no such thing as someone not suiting hats – people just haven't found the right hat! Everything from crown height to brim length is vital to flattering face shapes and I love educating people on these factors."

Holly says Mason Hats has a commitment to creating environmentally friendly and sustainable hats.

"We all need to make conscious decisions in this current climate and that's why we only use sustainable and biodegradable natural fibres to make our hats. We don't use any plastic for packaging or selling our products and are determined to do our bit for the environment," she said.



Mason Hats' founder **Holly Bowden** wearing the Billie hat made from 100% Australian Merino wool.

Expansion overseas

The brand's hats showcase classic designs – for women, men and children – with all the hats designed and hand finished in Tasmania. The hats are available online and in selected stores across Australia.

However, the interest in statement and chic Australian Merino hats isn't just local. Holly says international interest has been growing rapidly.

"Mason Hats last month began showcasing its range in New York at the Flying Solo store located in SoHo. Positioned on West Broadway among some of the world's most renowned brands is a truly thrilling opportunity," Holly said

"We also have the opportunity to make our New York Fashion Week runway debut in September and showcase Mason Hats on a global scale.

"With interest from other locations across the US and Europe, we are so excited to be growing our brand and promoting our Australian business."

More information: www.masonhats.com.au

Whether you are on a multi-day trek in the mountains or simply lounging at home, wool garments help you stay fresh for longer compared to garments made from other fibres, due to wool's unique odour resistant properties.

Perspiring is a natural way the human body regulates its temperature, especially in response to hot conditions or strenuous exercise. However, high levels of perspiration lead to liquid sweat which is the driver of body

Sweat itself has no odour, but if it remains on the skin, the humid environment is perfect for bacterial growth, leading to body odour.

Wool has a number of unique properties that minimise the effects of body odour:

- 1. Wearing wool means less sweat and hence less body odour
 - Wool fibres can absorb large quantities of water vapour (up to 35 per cent of its own weight) twice as much as cotton and thirty times as much as polyester. This helps to keep the skin surface drier and prevent the build-up of sweat, thereby discouraging bacteria and unpleasant smells.
- Wool absorbs and 'locks away' odours
 The unique chemical structure of wool
 enables it to bind odours within the fibre
 where bacteria do not thrive. The garment
 not only remains fresher for much longer,
 it also requires less washing which is
 good for the planet.
- Wool garments respond well to washing Odours are significantly released from wool garments when laundered. This means wool garments retain less odour than cotton and synthetics after washing.

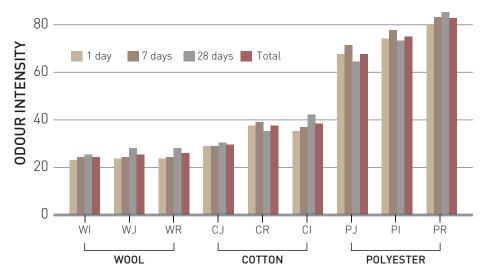
Less breathable fabrics such as many synthetics cause the wearer's skin to become more moist, encouraging bacterial growth and odour development.

Athletes such as mountaineers, who wear clothing for long periods without washing, report less odour build-up when wearing wool apparel compared to synthetics. And while odour resistance makes wool garments very suitable for sports and travel, it also makes Merino wool ideal for everyday next-to-skin items such as underwear, base-layers, socks or T-shirts.



Wearer Trials - Apparel Fabrics

A New Zealand study which involved 13 skilled olfactory (smell) assessors testing the odour of wool, cotton and polyester across a range of storage periods, found that wool fabrics on average retained 66% less body odour intensity than polyester fabrics and 28% less than cotton fabrics. Three fabrics for each fibre type were tests: Interlock (I), Jersey (J) and Rib (R).



Source: McQueen, R.H., Laing, R.M., Brooks, H.J.L, and Niven, B.E., Odour intensity in apparel fabrics and the link with bacterial populations, 2007, Textile Research Journal, 453.

More information: The information in this article is sourced from a fact sheet that AWI's marketing subsidiary has produced to promote the use and purchase of wool. View this and other fact sheets about the properties of wool at www.woolmark.com/factsheets

PUTTING OUR FIBRE INTO THE FIGHT AGAINST MND

A Big Freeze scarf made from Australian Merino wool is now available with proceeds going towards the FightMND charity that was founded by Neale Daniher, the famous AFL footballer with a wool-growing family background.



Big Freeze Merino wool scarf

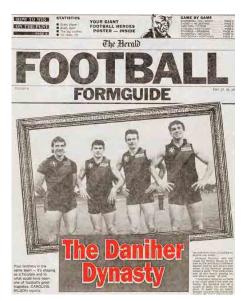
The limited edition Big Freeze scarves are made in Australia from 100% Australian Merino wool of 21.5 micron.

The scarves are priced at \$70 and are available from www.fightmnd. org.au.

Wear them with pride and know that you are making a difference in the fight against motor neurone disease (MND).

Aussie rules football is intertwined with the long history of the wool industry in Australia. There are many well-known footballers who started out life on a family farm, helping out in the shearing shed and sheep paddocks.

One famous footballing name is Daniher. For football fans, it is the family name of the four brothers – Neale, Terry, Anthony and Chris Daniher – who together played for Essendon Football Club. But Daniher is also well known as a farming surname, especially to those who live on the land around Ungarie, north-west of West Wyalong in NSW. It was there that the four brothers grew up before going on to become AFL royalty.



Newspaper cutting from the Daniher brothers' time at Essendon Football Club.

The Danihers' parents were Jim and Edna Daniher, who also raised seven daughters at 'Hillview' at Ungarie. While the 11 siblings were growing up, they helped out on the family farm, which included sheep and wool production. And even after the four brothers left for the big city, where they would pull on the woollen jumpers week in week out for their beloved team, they were still representing the great Australian farming community in the process.

Neale Daniher and the FightMND charity

Neale Daniher had a stellar career spanning 305 games combined as a player and coach. In 2013, he was regrettably diagnosed with motor neuron disease (MND). But being the intense, passionate and uncompromising coach Neale was, may have been the best possible warm up for what would become the biggest fight of his life.

MND is one of the cruellest of all diseases, robbing you of your ability to walk, talk, swallow and ultimately breath. MND was hardly known, until Neale chose to fight. He rallied the troops and co-founded the FightMND charity, which funds research into MND. So far, FightMND has committed \$69.3 million for research and clinical trials – a giant effort from a giant of a man.



Neale Daniher at the MCG for last year's Big Freeze.

Big Freeze at MCG

Neale is the face of the infamous 'Big Freeze', a charitable event that has been running annually since 2015 to raise money for the FightMND charity. The event is held at the MCG on the King's Birthday, to coincide with when the Aussie Rules Football titans of Melbourne and Collingwood battle it out on the field.

The event sees celebrities slide into a pool of ice water as a curtain-raiser to the match and draws huge public interest. As Neale says, the event puts the 'fun' in 'fundraising'.

With Neale as the co-founder of the FightMND charity, it's therefore a touching tribute that Australian wool has been used to manufacture Big Freeze scarves, with all proceeds going to FightMND.

"I would like to express my sincere gratitude for the wool industry's contribution to help us create our first-ever Big Freeze 9 Scarf. The scarf is a wonderful addition to the Big Freeze campaign," said FightMND CEO, Dr Fiona McIntosh.

"FightMND's slogan is 'It Takes People'. It takes people like Australian wool farmers to help ensure that no-one has to suffer from this cruel disease. Thank you for being 'all in' with us for Big Freeze 9.

More information: www.fightmnd.org.au

THE WOOLMARK LEARNING CENTRE

The Woolmark Learning Centre is a web-based hub that houses free world-class educational resources about wool for learners at all levels, including those entering the global textile industry as well as those already in it.

The Woolmark Learning Centre is an online platform that educates the global textile supply chain about how to use Australian wool, thereby increasing demand for the fibre.

Developed by experts in the textile industry, the digital platform and coursework are structured to facilitate both fundamental and masters-level education.

Free to access, the Woolmark Learning Centre is also a useful resource for woolgrowers wanting to gain a greater knowledge of what happens to wool post-farmgate. The courses include the ever-popular 'Wool appreciation course', as well as the 'Wool price risk management' course for woolgrowers, reported in the March edition of Beyond the Bale.

Current programs (and courses) include:

- Fundamentals (2)
- Sustainability (1)
- Fashion & design (4)
- Science & technology (7)
- Industry voices (2)
- Woolgrower (1)

More information:

www.woolmarklearningcentre.com

New course: Seamless knitting with wool

The Woolmark Company earlier this year launched a course, in partnership with knitwear technology manufacturer Santoni and designer Studio Eva x Carola, which showcases revolutionary techniques for seamless wool garments and accessories.



From next-to-skin intimate apparel and athleisure to highly technical performance and compression garments for sport or medical applications, seamless knitting with Merino wool opens new possibilities for product innovation with minimal-waste, allowing designers to embrace Merino wool as a high-value fibre in a wider range of applications than ever before.

Traditionally, wool base-layer apparel was made by cut and sew production with limited possibilities for variety. Now however, thanks to advancements in technical know-how and machinery, 'seamless' knitting technologies are being employed to manufacture not only base-layer garments, but an extensive range of mid- and outer-layer garments.

What's so unique about seamless apparel is that it allows for a combination of different patterns and knit stitches in different colours on the one piece of fabric. By engineering a garment to have features such as compression and breathability points on a single surface, it encourages greater structure diversity and comfort along with enhanced protection.

The 'Seamless knitting – Santoni technology' course explores this revolution in the world of textile machinery for those looking to delve into the ever-increasing opportunities to integrate fashion and function with no sewing, minimal seams and Merino wool.

New course: Introduction to textile printing

The Woolmark Company in April launched a new course which examines the range of printing techniques and technology used to create colour and interest in textiles and garments, with the course having an emphasis on printing on wool and wool-blend fabrics.



Printing is probably the most important and versatile of the techniques used to add decoration, colour and interest to textiles and garments. At its most basic, textile printing is the process of applying colour, in the form of dyes or inks, pigments, print pastes and other substances, to fabric in distinct patterns or designs to create interest, decoration, branding and individuality, or group identity.

Because wool is a natural fibre, and the processes to produce wool textiles and garments is multifaceted and complex, these products are inherently high-value. As such, the best printing techniques used to apply colour and design to wool textiles and

garments are those that create a high-quality

The 'Introduction to textile printing' course covers the key methods of applying colour and decoration to textiles, including screen printing, heat-set transfer printing (sublimation printing), digital printing – and a range of less-common, yet still important, manual printing technologies.

The Broader View

The latest edition of AWI's *The Broader View* publication provides an overview of how AWI's marketing and on-farm R&D and extension activities support producers of non-Merino wool.



Download The Broader View at www.wool.com/broaderview2023

Marketing broader wools

AWI's marketing of Australian wool, irrespective of the micron, is beneficial to the demand for all wool including broader wools. For example, the company's marketing of wool's eco-credentials, its breathability, fire resistance and anti-odour properties applies to all Australian wool: broad, medium and fine.

Projects such as the Campaign for Wool continue to champion wool's natural benefits for a wide variety of uses including hardwearing interior products as well as apparel and accessory products. The Wool Lab sourcing guide to the world's best commercially available wool fabrics and yarns contains several themes, one of which usually relates to interior textiles.

Many of AWI's educational initiatives, such as the Woolmark Learning Centre and Learn About Wool programs, provide resources to textile professionals and students about the broader as well as finer microns.

Many of the company's Woolmark licensees manufacture and sell products made from broad wool (such as bedding products and floorcoverings) and use the Woolmark logo in their marketing activities. AWI currently has about 140 Woolmark licensees that market interior textile wool products with the help of the Woolmark brand.

On-farm R&D and extension

AWI's on-farm R&D and extension projects largely benefit all Australian woolgrowers, irrespective of the breed of their sheep and micron of their wool.

AWI continues to invest in areas that producers have told us are important to them. Shearing is the number one issue facing many woolgrowers and AWI has been doubling down on efforts to tackle the problem.

Most of AWI's other on-farm R&D projects also benefit growers of broader micron wool, including projects aimed at optimising sheep health and welfare; combatting wild dog, fox and feral pig attacks; increasing the reproductive efficiency of ewes, and harnessing opportunities for on-farm automation.

In addition, AWI delivers training programs through its extension networks in each state. The company also provides market intelligence to woolgrowers, holds many face-to-face industry events, and runs projects to encourage the next generation into wool.

Interiors feature in The Wool Lab

The Wool Lab is a premier sourcing guide to the world's best commercially available wool fabrics and yarns. Each season The Wool Lab also now features an interiors theme which aims to inspire brands to use broader wools in interior applications, thereby increasing the demand for wool of broader as well as finer microns.

The Wool Lab sourcing guide for designers and brands contains swatches of a selection of the most innovative and quality wool fabrics, yarns and processes commercially available on the market. Fabric swatches can be ordered by designers and buyers directly from the manufacturers through The Wool Lab. Since its launch 12 years ago, it has become an important tool for the global textile industry and is helping to increase the demand and use of Australian wool.

Each season, The Wool Lab contains several themes, one of which now relates to interior textiles. The interiors-related themes in The Wool Lab highlight how the versatility of broader wool can enable people to 'dress' their houses and workplaces with a range of wool products.

For example, the newly released The Wool Lab for the Autumn/Winter 2024/25 season includes a theme titled 'In-Spaces' which includes 63 wool fabric swatches for use in traditional interior applications such as blankets and upholstery, through to more innovative interior uses such as room dividers and decorative elements. Similarly, one of the six themes for the Autumn/Winter 2023/24 season is titled 'Interiors' and features 74 swatches for interior applications.

Anyone (including woolgrowers) can view the digital version of The Wool Lab on the Woolmark website. The physical editions and swatches of The Wool Lab are promoted to brands and retail buying teams at trade shows and directly in one-on-one viewings.

More information: www.woolmark.com/thewoollab



Australian wool production forecasts

The Australian Wool Production Forecasting Committee's (AWPFC) April report states most key wool producing regions experienced a favourable summer season, a reasonable autumn and are heading into winter with a sufficient supply of feed.

Reflecting this, the Committee's fourth forecast of Australian shorn wool production for the current 2022/23 year is 328 Mkg greasy, a 1.3% increase on the 2021/22 estimate of 324 Mkg greasy. The Committee's first forecast of shorn wool production for the 2023/24 season is 332 Mkg greasy, a 1.4% increase on the current season.

The Australian **sheep flock** is forecast to stabilise at 71.5 million sheep shorn during 2022/23, down slightly (-0.1%) compared with 2021/22 due to reduced sheepmeat prices and a forecast El Niño in spring. For the 2023/24 season, sheep numbers are expected to remain relatively stable at 72.7 million, up 1.7%.

Average cut per head is expected to increase during 2022/23 to 4.59 kg greasy (up 2.2%) and reflects the current run of three good seasons. The Committee expects the average cut per head to stabilise in 2023/24 at 4.58 kg greasy which is at an historically high level (87th percentile).

Table 1: Summary of Australian wool productiont

	2021/22	2022/23 Fourth Forecast	Change y-o-y (%)	2023/24 First forecast	Change y-o-y (%)
Sheep numbers shorn (million head)	71.6	71.5	-0.1%	72.7	1.7%
Average cut per head (greasy kg/head)	4.52	4.59	2.2%	4.58	0.0%
Shorn wool production (Mkg greasy)	324	328	1.3%	332	1.4%

Table 2: Total shorn wool production by state (million kg greasy)

Season	NSW	VIC	WA	SA	TAS	QLD	AUSTRALIA
2020/21	99.2	70.7	56.5	51.5	9.4	7.2	294
2021/22	113.3	73.9	61.2	56.1	10.3	8.9	324
Change y-o-y (%)	14.2%	4.5%	8.3%	8.9%	9.6%	23.6%	10.0%
2022/23*	119.0	70.0	60.6	56.7	10.2	11.3	328
Change y-o-y [%]	5.0%	-5.3%	-1.0%	1.1%	-1.0%	27.0%	1.3%

^{*} Fourth Forecast

The full AWPFC report (April 2023) is on the AWI website at www.wool.com/marketintel.

Wool price formation

The make up or price gaps within each type category are large and can determine very differing returns to woolgrowers. Much of these are determined by wool specifications and quality as the European and Indian orders remain in the market. These origins are usually insisting on better specs, with strength readings of 35nkt plus and lower pobm (position of break in the middle) and hence lower cvh (co-efficient of variation of hauteur – top length) readings required.

Table 3 right is just one specification example and is in regard to the staple strength price differentials produced weekly by AWEX. The largest differences of up to 482ac within a single point of a micron group (16 micron) is substantial and is more than 20%, but an outlier, as most micron groups have a 5% premium from worst to best in regard to the nkt part of the type build for commercial contracts. Other factors then are additive (or subtractive) effects to price and include results of pobM, yield, VM, length, SS, Cvd, DMFR, mulesing status and some scheme membership.

Table 3: Example of specification – for staple strength price differentials

Micron (Merino fleece)	Staple strength (nkt)						
	40	35	28	21			
16.0	2,701	2,311	2,219	2,241			
16.5	2,391	2,291	2,130	2,038			
17.0	2,150	2,095	2,183	2,021			
17.5	2,035	1,904	1,934	1,889			
18.0	1,814	1,782	1,711	1,763			
18.5	1,699	1,689	1,676	1,612			
19.0	1,617	1,603	1,582	1,584			
19.5	1,567	1,532	1,516	1,497			
20.0	1,458	1,470	1,443	1,418			
20.5	1,433	1,431	1,403				
21.0	1,400	1,397	1,344	1,329			

AVERAGE MONTHLY EMI COMPARISON

he 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 (February 2023 – April 2023) in Australian dollar terms compared with the previous five years February 2018 to January 2023 (circles) and the decade previous to that, February 2008 – January 2018

At the end of the first full selling week in May 2023, the EMI was about 53% higher than it was compared to the low point in September 2020 during the depths of the COVID pandemic.

During the past three months, the monthly EMI averaged at \$13.36 which is a 49c increase from the average monthly EMI for the previous three months, and is tracking at the 29th 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 \$13.36 (February 2023 - April 2023) for 29% of the time.

While the EMI is tracking at the 29th percentile over the previous five years, it is tracking at the 83rd percentile when compared to the decade February 2008 - January 2018. This means the current EMI of \$13.36 (February 2023 - April 2023) is higher now than it was for 83% of that decade

18 micron averaged at a monthly value of \$19.55 (42nd percentile for the previous five years and 93rd percentile for the decade before that), 21 micron averaged at \$14.55 (36th percentile for the previous five years but 87th percentile for the decade before that), and 28 micron averaged at \$3.58 (12th percentile for the previous five years and 2nd percentile for the decade before that).

For the past three months, Merino Cardings averaged at \$8.81, operating at the 25th percentile for the previous five years and at the 63rd percentile for the decade before that.

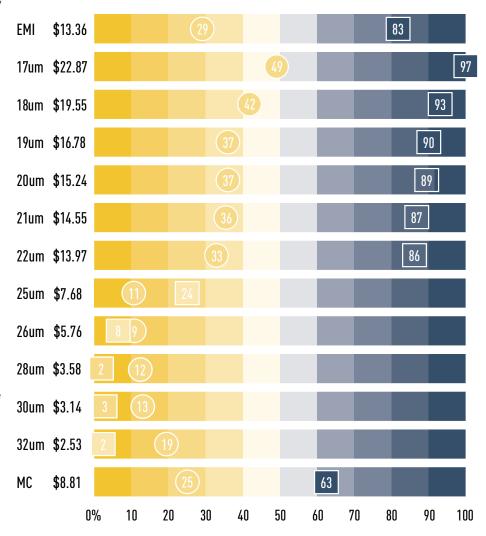
Market intelligence at wool. com

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:

AVERAGE MONTHLY EMI FOR FEBRUARY 2023 - APRIL 2023 COMPARED WITH

- PREVIOUS 5 YEARS FEBRUARY 2018 JANUARY 2023
- THE DECADE FEBRUARY 2008 JANUARY 2018



- 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

AWI Global Strategic Advisor Peter Ackroyd reports on the prevalence of wool on show at the Coronation of King Charles III and the buoyant trend for high-end suiting. Mr Ackroyd is a former President of the International Wool Textile Organisation and is Chief Operating Officer of the Campaign for Wool.



AWI Global Strategic Advisor, Peter Ackroyd.

The Coronation in London last month was an event witnessed across the UK, the Commonwealth and the rest of the world – and wool was very much an essential component of the ceremony – see page 40.

As Sir Nicholas Coleridge, Chairman of the Campaign for Wool, noted prior to the event – in response to a constant flow of requests from TV channels, tabloids, broadsheets, glossies and other media outlets – the Coronation was a unique showcase of some obvious and some less known properties of wool.

"Wool will be used in virtually every part of the Coronation, and over 6,000 UK and Commonwealth military personnel from the army, navy and airforce will be on parade on the day, wearing uniforms made from over 15 miles of Merino wool," Sir Nicholas said.

"In addition, there will be wool in formal dress, business suits and separates for men and women, regalia and vestments, red carpets, hassocks and alter cloths, saddle fillings and blankets, undercrofts and ceilings cladded in wool for essential non-flammable insulation, canopies, and awnings, casement linings for organs, pianos, and percussion instruments, to mention just the essentials in evidence on the day."

The Campaign for Wool, initiated by the then HRH The Prince of Wales in 2010, has been instrumental in promoting the natural and sustainable benefits of all microns of wool to consumers.

"The Campaign for Wool is King Charles's personal initiative as Prince of Wales, launched on Australia Day, January 26th 2010, to assist woolgrowers from the throughout the Commonwealth to challenge the rise of toxic synthetic fibres in the worlds of fashion and the built environment," Sir Nicholas said.

In the lead up to the Coronation, the Campaign for Wool played its part, in concert with selected Woolmark licensees, in promoting the role wool plays in the pomp, pageantry and popular acclaim surrounding the Coronation. Window displays featured in stores across the UK celebrating wool, and on Savile Row and the surrounding streets celebratory bunting made in Merino wool by AW Hainsworth in Leeds was draped from store to store.

Buoyant trend for tailoring

It was interesting to learn that HM The King requested attendees at the Abbey 'to dress down' for the occasion... perhaps not quite descending to 'dress down Friday' and lockdown levels of sartorial squalor we had to endure over the past three years, but more a suggestion that Lords cast off their ermine (not terribly PC) and invited parliamentarians to wear business attire, not traditional coronation robes. However, if any of the 1,200 gentlemen invited to the Abbey fancied a new bespoke suit for this unique occasion from Savile Row, then tough luck, the entire place has been booked out for months!

In further celebration of the return of formal menswear, Bosse Myhr, Director of Menswear at Selfridges in London recently acknowledged the continuing boom in up market men's formal wear by increasing the company's fashion tailoring offer by +75% in response to the 'vibrant' return of tailored clothing on European runways.

In a recent interview, Myhr delighted finer micron weavers in the UK and Italy when he noted: "men today are buying for pleasure rather than for the purpose of work and occasion. After a long period of casual and streetwear dominating the menswear landscape, tailoring is a counterbalance for men who are interested in fashion, and who are also thinking about their clothing with a longer-term view, rather than seasonally."

The buoyant trend for suits and other tailored pieces priced at £2000+ (A\$3,700) at Selfridges is echoed at lower price points on London's Jermyn Street, particularly at Charles Tyrwhitt

where suits and separates are below £500 (A\$925).

Lower and middle market woes

While the higher end of the market (which appreciates wool) is buoyant, high street distribution in the UK has been rocked over the COVID and post pandemic period by the near total annihilation of 'home grown' lower to middle market fashion retailers.

Sir Philip Green's Arcadia empire began to crumble pre COVID, and in 2021 British Home Stores, Burton, Dorothy Perkins, Debenhams, Evans, Miss Selfridge, Topman, Topshop, Wallis and Warehouse had disappeared from UK high streets. Good riddance some would say, as Green's empire, far from being wool friendly, was latterly decidedly hostile, claiming they used little or no wool 'for environmental and animal welfare reasons'. TM Lewin closed all its retail outlets in 2020, and several more brands disappeared.

Across the Channel in France, it is a similar story. In a fashion market once dominated by independent retailers, the 1980s trend for Anglo Saxon style, French-owned high street fast fashion chains is ending in tears and several have finally 'put the key under the door', as they say in French, as the lower to middle market suffers from the biggest fall out since the French business world embraced mass market clothing distribution.

The middle market meltdown in France took even the most pessimistic retail analysts by surprise. "This is just the beginning of a closure process that had some respite post COVID, but, as in the UK, the mass clothing market in France has shrunk by -15% in a retail climate that is seeing the majority of consumers focusing on just three or four brands max," noted retail analyst Mathilde Visseyrias, speaking recently in Paris.

So if we accept the broad assumption that consumers in the middle market in UK and France will, by and large, confine their in store and online clothing shopping to four or five brands, which are the winners? In the UK, all point to NEXT, Marks & Spencer, Fraser Group and John Lewis, that is retailers who could shift demand for wool and natural fibres in the current ecological climate.

READERS' PHOTOS

ave 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.*





United States Ambassador to Australia

United States Ambassador to Australia, Caroline Kennedy, who is the daughter of President John F Kennedy, had fun being part of the huge crowd at the Royal Canberra Show in February. She even got to kiss and shear a sheep with the help of third generation shearer Glen Gregory from Tharwa. Ambassador Kennedy has enjoyed learning about Australia's agricultural industry since taking up her post last year.



Darkan Sheepfest Farm Boot Foot Race

Originally planned as a novelty one-off event, the Farm Boot Foot Races at the Darkan Sheepfest in WA continues to draw crowds every year. Wearing farm boots certainly doesn't seem to slow down these speedy racers. Photographer Caro Telfer took this great shot.



The starting bid

Cam Rubie's love for Merinos started at the early age of two, as seen in the picture (captured by his Nana, Jill Rubie) trying to buy his first Merino ram at his family's Lachlan Merinos' second annual on-property ram sale in 2007, at Warroo near Forbes in NSW.



Sticky-beaking sheep

Breaking away from the rest of the flock, this sticky-beaking sheep looks curiously into the camera of Imogen Turnbull (@ewe.beautie) of Michelago in the Monaro region of NSW. Thanks for tagging this photo #beyondthebale on Instagram, Imogen.



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