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FRONT COVER

FRONT COVER
The shearing team at Penshurst Victoria enjoy a hit of cricket during the lunch break. Woolgrowers are invited to donate a small sample of their wool to help create the next batch of Baggy Green caps - check out the details of AWI's new Flock to Baggy Green project on page 4.
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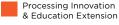


Marketing



Sheep Production







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ON-FARM

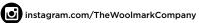
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New online portal set to launch in July

WOOLMARK.COM













GETTING ON WITH BUSINESS

We are continuing with initiatives to help increase the demand for wool through investments in marketing and R&D - from farm to fashion.



Stuart McCullough
Chief Executive Officer
Australian Wool Innovation

AWI ANNUAL GENERAL MEETING

AWI held its 2017 AGM on Friday 17 November in Sydney. At the AGM, I gave a detailed presentation of the activities of the company during 2016/17 and spoke about the level of optimism around the Australian wool industry not seen for many decades. International marketing campaigns continue to connect more retailers, brands and consumers with Australian wool, aided by the development of new and innovative fabrics. Meanwhile, on-farm research, development and extension initiatives such as the Merino Lifetime Productivity project, wild dog control and Lifetime Ewe Management help woolgrowers lift their production and profitability.

AWI shareholders who were unable to attend the AGM in person were able to view the AGM proceedings via webcast. This was the sixth time that AWI has webcast its AGM. As well as being broadcast live, a recording of the webcast of the 2017 AGM is available to be viewed on the AWI website at www.wool.com/2017agm

MORE WOOL IN SPORTSWEAR

A key part of AWI's marketing strategy is to place a large focus on increasing Merino fibre's presence in the sports and outdoor market. We are increasingly collaborating with leading manufacturers and brands in these sectors to promote the natural benefits of wool as a performance fibre. There are several examples reported in this edition of Beyond the Bale: from mountaineering and snowboarding to sailing and yoga - and even the iconic gondoliers of Venice. While there are many sports and outdoor brands now incorporating wool in their collections, I believe there is still further significant potential for growth in demand for wool in these sectors.

RESULT OF DIRECTOR ELECTIONS

At the AGM, AWI shareholders re-elected Colette Garnsey and James Morgan and elected Don Macdonald to the AWI Board. The AWI Constitution stipulates at least a third of the Board, currently made up of seven members, must retire their positions every two years. In 2017, the incumbent AWI directors to retire were Colette Garnsey, James Morgan and Paul Cocking who all chose to re-stand for election; nominations were received from Don Macdonald and Will Wilson. Following the meeting, Wal Merriman was re-elected as Chairman and he thanked Paul Cocking for his years of dedicated service and contribution to the Board of AWI.

As part of this year's election of directors there were a number of woolgrowers who have voiced their concern at not receiving voting papers. It is important to note, that although eligible wool levy payers can participate in WoolPoll every three years, levy payers must choose to become an AWI shareholder to be eligible to vote in director elections. This written invitation is sent to levy payers every year, although levy payers can apply (at any time during the year) using the form located on the AWI website at www. wool.com/shareholders.

WOOLQ: THE WOOL EXCHANGE PORTAL

An example of innovation at AWI is WoolQ, formerly known as the Wool Exchange Portal. The new online portal will launch in July 2018. It is designed for woolgrowers, classers, brokers and buyers seeking access to data, selling choices and trading opportunities. In advance of July, there will be various updates and opportunities for woolgrowers and other wool industry participants to be involved in trialing the portal. Register your interest at www.woolq.com to ensure you are kept up to date.

WILD DOG EXCLUSION FENCING

Combatting wild dogs remains a key priority for AWI. Our investment on behalf of woolgrowers has been calculated to produce a return of \$8.60 for every dollar invested over the past few years. A control option that has been generating much interest recently is wild dog exclusion fencing. To help woolgrowers who are considering, planning, building or maintaining exclusion fencing, AWI has produced a 36-page practical guide that provides an overview and photos of many types of exclusion fences that are being used successfully by Australian woolgrowers to protect their sheep, and also control total grazing pressure. You can download a copy at www.wool.com/exclusionfencing or request a copy from the AWI Helpline on 1800 070 099.

POSITIVE PRICES DURING 2017

As 2017 draws to a close, we can reflect on another very positive year for woolgrowers. Due to improved demand, the EMI has been well above 1,400 cents for the entire year. While the EMI has been relatively stable – which is a positive in itself – the trend is still upwards with the EMI reaching above 1,500 cents for most of the second half of the year and pushing above 1,600c on several occasions. This consistently high EMI has been very rewarding to watch during the year and, more importantly, very rewarding financially for many woolgrowers.

We hope that 2018 continues on this positive note. And with this in mind, I wish you a very happy Christmas and prosperous New Year.



The baggy green cap is made from 100% Australian wool. It is worn by Australian Test cricketers and is seen as the highest honour a player can receive. Australian cricketers first started wearing what became known as the baggy green in 1899. Kookaburra took over production of the iconic caps in 2016. Now individual woolgrowers across Australia can get directly involved. PHOTO: Ryan Pierse/Getty Images.



AUSTRALIAN WOOLGROWERS INVITED TO

FLOCK TO THE BAGGY GREEN

In a unique project that combines our national game with our natural fibre, **Australian woolgrowers** are being invited to donate some of their wool to help create the next batch of Baggy Green caps as part of AWI's new Flock to Baggy Green project.

AWI's marketing arm The Woolmark Company, Cricket Australia and Kookaburra are now inviting woolgrowers to show their love of cricket and pride in the national team by putting their wool on the heads of future Australian cricketers.

During this summer of cricket, the Flock to Baggy Green project welcomes woolgrowers to donate as little or as much raw wool as they wish (in a standard envelope).

Wool from across Australia will be collected and processed into woven fabric to be donated as finished cloth to Cricket Australia in 12 months' time. Every woolgrower who provides wool will receive a sample of the finished fabric as a keepsake.

Cricket clubs have long formed a vital part of the fabric of rural communities, with sheep stations many years ago having their own cricket teams and many cricketing heroes past and present having had connections to the wool industry.

Cricket is Australia's number one participation sport, with an increasing number of Australians enjoying the various forms of the game from backyards to the mighty MCG.

The Australian wool industry and cricket have a long association. The Australian Cricket Coat



Cricket is Australia's number one participation sport and forms a vital part of the fabric of rural communities.

of Arms, created before Australia officially existed, features a sheep, which shows the wool industry's prominence in the Australian community when the team first formed.

In fact between 1860 and 1960, wool was Australia's largest export earner, the industry being one of the key drivers of economic wealth for a young country finding its feet. Today, the wool industry is worth \$3.5 billion and employs tens of thousands of men and women across the paddocks, sheep yards, woolsheds, processing plants, design studios and fashion houses across the country.

HOW TO TAKE PART IN FLOCK TO BAGGY GREEN

To take part, woolgrowers have until the Friday 30 March to send a sample of their wool in a standard envelope, complete with their name, property, fibre diameter, telephone number and email address to:

Flock to Baggy Green

c/- AWI GPO Box 4177, Sydney NSW 2001

Head to www.wool.com/baggygreen for more information about how to be involved.

Woolgrowers are sometimes not aware of what happens to their wool after it leaves the farmgate. So during the course of this project, as we report on the progress of manufacture, woolgrowers will be able to gain a greater knowledge of what is involved from taking wool through the supply chain.

Furthermore, media coverage of the project will also increase the public's awareness of Australian woolgrowers and their wool.

MORE INFORMATION

www.wool.com/baggygreen

RETURNS TO ICONIC **VENICE**

The iconic gondoliers of Venice are once again wearing wool, thanks to an initiative between AWI and the exclusive supplier of the Association of Venetian Gondoliers. Emilio Ceccato.

or more than 1,000 years, gondolas have been a primary means of transport along the Venetian canals, and the classic blue and white stripes of the gondoliers' uniform have long been used to dress these iconic Venetian boatmen.

After an absence of almost a century, wool is once again being used in the uniforms. The official supplier of the Association of Venetian Gondoliers. Emilio Ceccato (owned by Italian apparel manufacturer and retailer Al Duca D'Aosta), in collaboration with AWI's subsidiary, The Woolmark Company, have created the new uniform, crafted from Australian Merino wool.

The gondoliers' job is strenuous and undertaken in all weathers, so they will be thankful that their uniforms are now being made from such a performance fibre. Merino wool's natural, inherent benefits - including thermoregulation and breathability - help ensure maximum comfort and freedom of movement during physical activity.

The city's 443 gondoliers will wear the iconic blue and white stripe Merino wool uniform, comprising a polo shirt made using 100% Merino wool fabric from Italian manufacturer Reda, a jersey made from 100% Merino wool yarn from Italian manufacturer Tollegno, and a



quilted vest from Marzotto with 100% Merino wool fabric and wool wadding.

The Woolmark logo, owned by Australian woolgrowers, is displayed on the sleeve of all the apparel.

The new wool uniform is available to the public to purchase from the three Venice stores of Emilio Ceccato; it is estimated 60,000 tourists visit Venice every day.

The Emilio Ceccato store near the Rialto Bridge in **Venice** that sells the gondoliers' Merino wool apparel. The apparel is also available online at www.emilioceccato.com

The gondoliers' apparel is also available to buy online at www.emilioceccato.com (shipping worldwide).

"We are proud that after almost a century the gondoliers have rediscovered wool for their uniforms," said AWI Global Strategy Advisor Fabrizio Servente.

"Their job requires high-level physical performance in extremely variable weather conditions. The return to Merino wool confirms the ability of this natural fibre to respond to their needs: this is why AWI wanted to support this project with the historical brand Emilio Ceccato and Association of Venetian Gondoliers."

Aldo Reato, President of the Association of Venetian Gondoliers, declared: "We are extremely glad for this new partnership with Emilio Ceccato and The Woolmark Company. Wearing wool of high quality, as the gondoliers used to do at the beginning of the 10th Century, adds value and pride to our profession."

CEO of Al Duca D'Aosta, Alberto Bozzo, added: "Loving Venice and its traditions means investing in quality and teaming up with companies who produce and promote the quality of Italian fabrics. Emilio Ceccato's new collection and the partnership with The Woolmark Company is an example. We are proud to offer to the Association of Venetian Gondoliers garments made with the world's best fabrics."

> MORE INFORMATION www.emilioceccato.com



Outdoor apparel company
Devold of Norway is the
latest international company
to feature Australian
woolgrowers in its
marketing to consumers.

oolmark licensee Devold of Norway has introduced a new strategy – known as Sheep to Shop – that ensures uncompromising quality throughout its supply chain, from the farms that produce the Merino wool the company uses, through to apparel manufacturing at its own facilities

"Our customer base is very conscious of product quality, functionality and traceability, which is why we are very proud to introduce our Sheep to Shop strategy. With 100% control of the supply chain, we can guarantee

in Europe.

premium quality at every stage, which is something that very few brands can claim," said CEO of Devold, Cathrine Stange.

About a quarter of Devold's overall production is currently based on Sheep to Shop principles, with the company's new Breeze and Signature base-layer collections (see image left) already part of the new quality journey. The company's aim is that 80% of its base-layer program be produced on Sheep to Shop principles by 2020, with the long-term goal to be as close to 100% as possible.

At Devold's factory in
Europe, more than
300 skilled employees
undertake knitting,
cutting, sewing,
assembly, and quality
control. More than 20
quality inspections are
carried out, ensuring
that Devold's standards
of quality are maintained
throughout the entire
production process, and
with no exceptions.

With such an unwavering commitment to quality, and willing to travel far and wide to find the very best wool, Devold chose to source Merino wool from Australia.

"Devold is one of the world's oldest outdoor brands, having produced high-quality wool clothing since 1853, and now I believe we offer the best wool in the world as well," Cathrine said.

The Sheep to Shop strategy is based on Devold having long-term contracts with an exclusive selection of a dozen Australian farmers who supply their Merino wool to the company.

Six of these farmers are featured in Devold's latest marketing of its apparel (see opposite page). They emphasise how Merino wool is a natural fibre renowned for being very fine and soft, and that it is grown using ethical and environmentally-sensitive farming.

"We are seeing the source of wool in Australia and the stories of the woolgrowers that grow the fibre being increasingly used by industry partners in their marketing to consumers," said AWI CEO Stuart McCullough.

"Devold's latest campaign is a splendid example of how the company is using Australian wool's provenance story as a core ingredient in its high-value end product."

MORE INFORMATION www.devold.com

Merino wool base-layers from **Devold's new Signature collection**, which uses Merino wool sourced from a select group of Australian woolgrowers (see opposite page).



Devold is using in its consumer marketing the stories of six Australian woolgrowers that supply their wool to the company. Imagery as well as information about the history and farming practices of each of the six farmers is included on the Devold website. In addition to the three woolgrowers highlighted below, the other three woolgrowers whose stories are told on the website are: Charles Downie of 'Glenelg' at Gretna in the Derwent Valley of Tasmania, Simon Barton of 'Glen Oak' at Wellington in NSW



Above: Devold's marketing of its apparel utilises several digital channels including web and social media. Right: A small selection of Devold's large base-layer range in which these farmers' Merino wool is used.

DEVOLD SHOWCASES ITS SUPPLIERS OF MERINO WOOL

Devold obtains its Merino wool from a dozen farms across Australia. View the stories about the sheep, people and environment of six of these farms at www.devold.com. Here are three of the featured farmers about which there are videos on the website.

EXCLUSIVE HERITAGE

IAN AND JAMES TAYLOR. 'WARRAMBEEN', SHELFORD, VICTORIA

Warrambeen is located on the western basalt plains of Victoria; a large area of the property is pristine grassland. The historic wool shed was built in the 1860s of local bluestone constructed by Scottish stonemasons. The Taylor family has an impressive heritage; originally from 'Kenilworth' in Tasmania, lan's forebear David Taylor, purchased half of Eliza Furlonge's flock of superfine Saxon-Merinos in 1835. In 1989, Ian and his family moved from 'Kenilworth' to 'Warrambeen', bringing 3,500 descendants of the Furlonge flock with them to Victoria.



lan's son James Taylor with wife Georgina and children Lachlan and Florence.

GREEN FARMERS. **GREEN PRODUCT**

PAUL SIMONS & MANAGER TOM SIMSON. 'GLENCOE', TAYLORS FLAT, NSW

On low-lying highly fertile valleys on the South West Slopes of NSW, 'Glencoe' is surrounded by old-growth native woodlands as well as a lush and colourful wildlife. Paul and Tom are doing everything in their power to conserve the look and feel of the property and provide the best possible home for its 10,000 sheep. The pair focus on not pushing the land too hard, but rather preserving it for future generations. To accomplish this, they have commenced a large tree planting operation to help stop erosion, protect the creeks and give shelter to the flock, and are working to preserve the soil on the farm.



'Glencoe' owner, 90-year-old Paul Simons.

NEW SOLUTIONS. BETTER WOOL

EDWARD 'BEAR' MARTIN. 'TUREE VALE', COOLAH, NSW

Edward and his wife Victoria, together with their three small children, produce some of the finest quality wool in the world. They do that by strong devotion to and passion for their heritage. Yet they are not shy of trying out new solutions. Edward says generations of breeding make the Merino wool from Turee Vale up there with the best in the state. "Our style of wool has improved along with elasticity, whiteness, length and lustre," he says. From start to finish, the Martins have promised to provide Devold with a well-treated animal, as well as some of the softest and whitest wool on the planet.



Edward Martin in his shearing shed.



■ hen Vladislav Moroz and Alexander Edgarovich Glushkovsky first met in early-1980s, they instantly bonded over their mutual passion for mountaineering. It was during this time that their idea to establish an outdoor-wear brand was formed, and in 1989

the Russian duo launched Red Fox.

Today, Red Fox is the leading outdoor company in

> Russia and is wellestablished across Europe, Asia and North America. working to their motto of "creating comfortable living conditions for people who are in extreme conditions".

brand's co-owner who wore it whilst climbing Mount Everest.

Red Fox 100% Merino wool **pullover** made from 210 g/m² fabric.

It's a mix of nature, adventure and technology which makes Red Fox

apparel so successful, with Merino wool being a natural fit for the brand's design ethos.

"Merino wool is a unique product with amazing properties: soft and snuggly wool that is highly durable and moistureabsorbent," explains Red Fox co-owner Mr Moroz. "That's why Merino wool is part of our base-layer range. Also, for Russians, Merino wool garments are essential due to weather conditions in Russia – it's part of our DNA."

Producing a range of menswear and womenswear Merino wool base-layers and accessories, Red Fox has recently partnered with AWI to further promote the fibre's origins and benefits. The latest brochure produced by the brand featured this collaboration and highlighted Australian Merino wool and the importance of AWI's subsidiary The Woolmark Company. It also featured the latest Merino wool and woolrich products designed by Red Fox, including MERINO LIGHT, Red Fox's thinnest, lightest Merino wool using 17.5 micron wool for a super soft feel, and MERINO WARM, a thicker fabric of 18.5 micron wool that provides more warmth for colder temperatures or lowerintensity activities.

SUMMITING MT EVEREST WITH MERINO

A keen outdoorsman, Mr Moroz knows he can trust and rely on Merino wool, wearing Red Fox Merino wool base-layers as he climbed to the summit of Mt Everest in 2016.

"I wore our thinnest Merino wool pants and pullover as a base-layer," he said. "They're very light and warm, perfect for extreme conditions and keep you comfortable without restricting movement."

the provenance and benefits of Merino

, wool and The Woolmark Company.

But it's not only equipment and gear that leads to a successful climb. For Mr Moroz, it's also a combination of health, motivation and luck. "A man should be ambitious and strong. It's important to be stress resistant, especially in extreme situations that can happen in mountains and everyday life. One should react correctly to them. That's what is needed to be successful.

"The Base Camp of Mt Everest is located at the altitude of 5200 metres. We arrived and felt the altitude immediately: one had a headache or felt nauseous, and it was difficult to move. There was absolutely no heroism.

"The acclimatisation process lasted five-to-six weeks, though the ascent of the summit only took one day. Fortunately, we were lucky and the weather was good."

MORE INFORMATION

www.redfoxoutdoor.com Read more about Vladislav's Moroz's summiting of Mt Everest on the Red Fox blog available via their website.

Merino wool products in a new collection from leading **US snowboarding brand** Burton are now available to purchase worldwide, which is perfect timing for northern hemisphere consumers heading to the slopes this ski season.

f you are a regular reader of Beyond the Bale, you will probably recognise AWI's snowboarding ram-bassador Fred (see image on the right) who in March helped promote Burton's upcoming Merino wool collection to snowboarders at the Burton US Open Snowboarding Championships. Well, the new collection is now in the shops for northern hemisphere consumers to buy – and Fred is out and about promoting it again.

Featuring menswear and womenswear 100 per cent Merino wool base-layer tops and bottoms, along with a range of wool and wool-rich accessories, Burton has expanded its Merino wool range this season and is expecting demand to snowball further during the next few years.

AWI's subsidiary The Woolmark Company assisted Burton with product development, retail education and marketing the products to drive sales.

"We re-introduced wool in our line for Fall/ Winter 2017/18 - in-store now - based on consumer and key-retailers' feedback," said Burton Senior Materials Development Manager, Ashish Ahlawat.

"Since our team was relatively new to wool, we contacted The Woolmark company to help our team with education and the promotion of our wool products. The Woolmark Company helped us a lot by providing insights into the wool supply chain and market futures. With Woolmark's support we built good product for Fall/Winter 2017/18 and, so far, we are receiving a lot of positive feedback around our in-store offering."

The partnership is a step in the right direction for Burton, who is looking to expand its Merino wool offering even more.

"For Fall/Winter 2018/19 we are tracking to increase our wool business by over 10%, and due to ever-increasing demand we are going to increase our wool and wool blend base-layer style count by 100% for Fall/ Winter 2019/20," said Mr Ahlawat. "We are also tracking to grow our wool socks and beanies business."

GLOBAL REACH

The collection is not only available in the Burton's home country of the US. Milan played host to the Italian launch of the collection last month, with AWI collaborating with Burton for a special retail event in Burton's Milan store, two days before the annual FIS World Cup Big Air contest.

Inside the store, the Burton Merino activewear and the Woolmark brand were promoted along with marketing collateral explaining the benefits of Merino wool; outside, on snow, was a showcase of fleece and wool top. AWI's ram-bassador Fred made everyone feel very welcome.



Anna Gasser with AWI's ram-bassador Fred at the launch of Burton's Merino wool collection in Italy, at the Burton store in Milan.

Burton team snowboard rider Anna Gasser - who is the Big Air World Champion and one of the favourites to win in Big Air and Slopestyle at the upcoming 2018 Winter Olympic Games – attended the launch and showcased the advantages of wearing this base-layer collection while snowboarding. The Woolmark Company will be on-hand during Burton's Italian Demo Tour to demonstrate the qualities of the wool fibre and educate consumers why they should choose wool to enhance their performance.

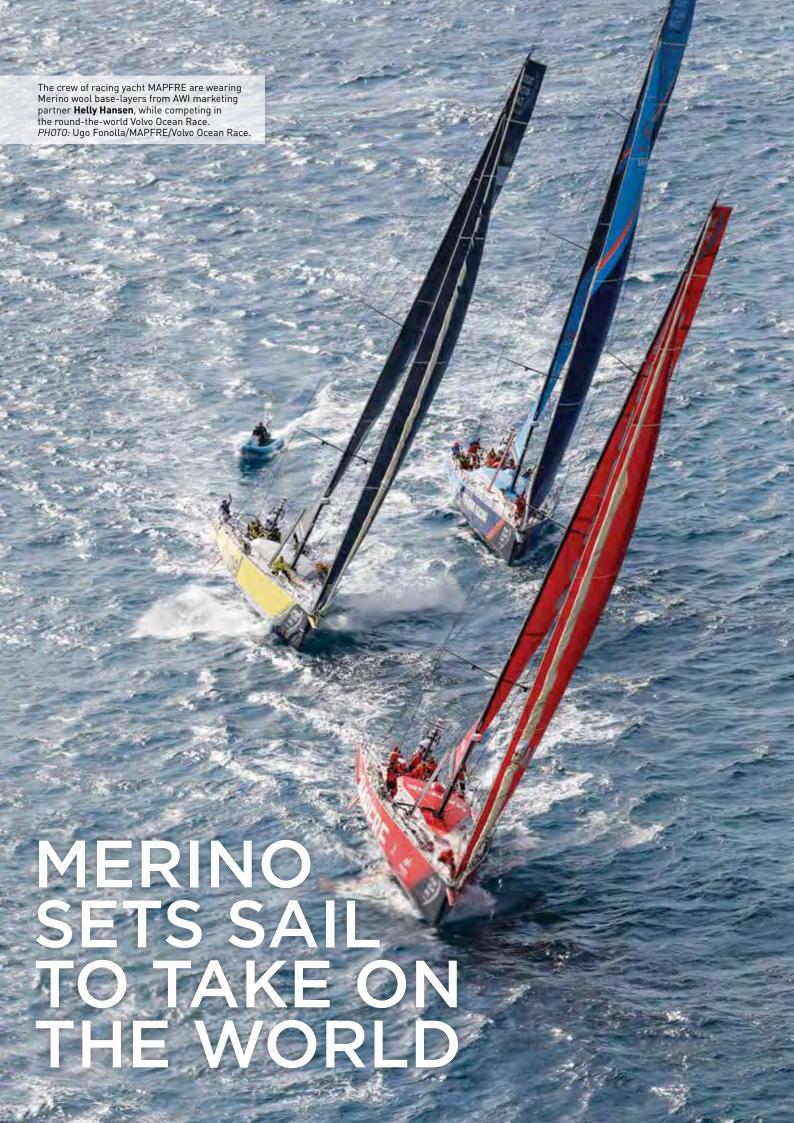
Japan will play host to the product launch for the Asian market, with activations set to take place in January 2018. Burton's flagship Tokyo store will have a woolly window installation while the inside will highlight the collaboration, with point of sale material to help build demand for the Merino wool range.

> MORE INFORMATION www.burton.com

Snowboarding star Anna Gasser from Austria wearing the Merino wool base-layer top of US brand Burton.



The Merino wool base-layers are available online (local shipping only) as well as in retail stores across the northern hemisphere.





MAPFRE skipper Xabi Fernández, who is a double Olympic medallist and one of the most highly regarded Volvo Ocean Race sailors of the modern era, wearing a Helly Hansen Merino base-layer.

Merino wool base-layers of outdoor brand and AWI marketing partner Helly Hansen are sailing the high seas, protecting the crew of sailing team MAPFRE as they compete in the roundthe-world Volvo Ocean Race and battle extreme weather conditions.

or more than eight months, across four vast oceans and 45.000 nautical miles and making port in 12 landmark cities on six continents - seven teams are currently racing around the world as they vie to become the 2017/18 Volvo Ocean Race champions.

This year, Spanish team MAPFRE have been given the cutting edge, decked out in Merino wool base-layers by leading outdoor brand and AWI marketing partner Helly Hansen as they battle it out in all weather conditions.

MAPFRE, a leading contender for the 2017-18 Volvo Ocean Race, named Helly Hansen as the official apparel and footwear provider for their sailing and shore crew. The experienced team will wear Helly Hansen outerwear, mid-layers, base-layers and footwear designed to perform in the most diverse and challenging ocean conditions during the seven-month race.

The competition started in Alicante, Spain, in October 2017 and will end in The Hague, Netherlands, in June 2018. Melbourne is a host city, with an opening event on 27 December and the fourth leg of the race departing Melbourne on 2 January.

The ultimate performance fibre, Merino wool is trusted by professional sportsmen and women worldwide. Odour resistant, quickdrying, breathable and most importantly thermo-regulating, the base-layers worn



The team on board the Spanish boat MAPFRE have a clear goal to win the round-the-world Volvo Ocean Race trophy that is currently under way. The crew will be wearing Helly Hansen Merino base-layers. MAPFRE is due to sail into Melbourne later this month. PHOTO: Ugo Fonolla/MAPFRE/Volvo Ocean Race.

by the MAPFRE crew will ensure they retain an optimal body temperature as they sail through weather extremes. Wearing a lightweight base-layer for the warmer climates from Helly Hansen's forthcoming Spring/Summer 2018 collection along with a mid-weight base-layer from the recent Autumn/Winter collection, the crew has been provided with durable, hard-wearing apparel.

Established in 1877 by Norwegian sea captain Helly Juell Hansen, the brand knows a thing or two about sailing and for the past 140 years has been at the forefront of technical innovation and high-performance apparel. Worn and trusted by professionals on oceans, mountains, worksites and ski fields, Helly Hansen continues to support Captain Hansen's legacy.

"Sailors love Merino wool: it keeps them warm, even when wet, and it can be used day after day without building up bad odour," explained Helly Hansen Category Managing Director Kristoffer Ulriksen.

"Helly Hansen has been the clothing partner of different sailing teams in every edition of the Volvo Ocean Race since its start, and before that, when it was called the Whitbread Round the World Race. These sponsorships

allow Helly Hansen to work directly with the professional end users of our products. These sailors use the gear in the most extreme conditions and the feedback and dialogue we have with them is priceless. Many great product innovations across the years started out from a dialogue with one of our professional athletes."

AWI has also entered a marketing partnership with Helly Hansen, working with the iconic brand to help promote the great story of Merino wool and increase demand for innovative products.

"Helly Hansen has a long history of using Merino wool in its base-layer," Kristoffer said. "Today, in addition to base-layers, Helly Hansen is using Merino wool in midlayer products such as brushed fleece and knitted sweaters, in socks and in headwear. Norwegians have always appreciated the great benefits of wool, especially its thermalregulating properties and Helly Hansen has experienced an increased demand globally for Merino wool products."

MORE INFORMATION

www.hellyhansen.com www.volvooceanrace.com



MAPFRE crew member Sophie Ciszek (right) from Mornington in Victoria wearing a Helly Hansen Merino base-layer. Sophie has competed in four Sydney-Hobart Races and now returns for a second consecutive Volvo Ocean Race. PHOTO: María Muiña/MAPFRE



AWI has partnered with National Geographic to showcase the performance benefits of Merino wool to consumers and increase demand for the fibre. As part of the initiative, National Geographic adventurer Pete McBride from the mountains of Colorado discusses his favourite Merino wool clothing that keep him in peak performance - naturally.

Part of the promotion in the January 2018 edition of UK's National Geographic Traveller.

"Sometimes nature is the best engineer."

S o says award-winning photographer and film-maker Pete McBride about the importance of apparel and equipment choice when embarking on an expedition.

One of National Geographic's Adventurers of the Year, McBride has spent years travelling to the most remote parts of the world. Speaking to National Geographic Traveller from Colorado's Elk Mountains, the intrepid traveller has his clothing choice put to the test as he often battles four seasons in one day.

"On an expedition, I have to think about weight, so what I put in my bag is critical. Clothes have to work together; they have to be tough, durable, light and stand extreme conditions," he tells National Geographic. "If you're not well equipped, nature can feel like the enemy," he warns.

McBride's story appears in the January 2018 print edition of the UK's National Geographic Traveller - as well as being published in the Chinese edition – as part of a partnership formed between AWI's marketing subsidiary The Woolmark Company and the iconic outdoors publication.

The feature also highlights the best commercially available Merino wool performance apparel, encouraging adventurous readers to tackle the great outdoors in Merino wool apparel from Helly Hansen, Ibex, Ortovox, Devold and Rab.

National Geographic is a globally trusted and iconic brand that believes in the power of storytelling to change the world. The partnership with AWI further cements Merino wool's rightful place in the outdoor/activewear market and inspires a new generation of sports enthusiasts to choose wool.

"I like the idea of wearing natural fibres like Merino wool," continues McBride, who actually grew up raising sheep. "The weave of wool today is amazingly comfortable. It has an incredible breathability and it's durable." He even wore wool for the 71 days it took him to walk the entire length of the Grand Canyon in 2016, raising awareness about development projects which could damage the natural landmark.

It's Merino wool's naturally inherent properties such as odour resistance, moisture management, durability and comfort that

National Geographic adventurer Pete McBride from the mountains of Colorado.

OOL PROMOTED TO **OGAFEST 2017**



MERINO

The promotion also highlights some of the best commercially available Merino wool performance apparel.

enthusiasts descending on Asia's biggest yoga festival, Yogafest in Japan, AWI partnered with fitness brand [sn]super.natural to highlight the suitability of Australian Merino wool for yoga.

> erino wool garments are ideal for stretch-related activities such as yoga, and as Merino wool fibres are so fine, they feel luxuriously soft next to the skin.

With more than 40,000 yoga

To build demand for Merino wool in this market, AWI's Japan office therefore recently collaborated with Swiss brand [sn]super.natural to exhibit at Yogafest 2017 near Tokyo, where every year more than 40,000 enthusiasts attend the three-day event.

[sn]super.natural and AWI sponsored yoga classes and held a social media contest with the #yogainwool hashtag. Outside, sheep proved very popular, with yogis able to make the sheep to shop connection.

"The theme yoga and Merino wool is unique, and as a rather new brand, we were able to differentiate ourselves and appeal to a new audience," said [sn]super.natural Japan CEO Yoichi Fukuhara. "The sheep, wool exhibits and photo contest also had a great impact on the visitors."

With a focus on yoga, but catering for all outdoor enthusiasts, [sn]super.natural's motto is 'inspired by nature, enhanced by design'. [sn]super.natural combines the benefits of natural Merino wool with the cutting-edge technology of engineered fibres to build progressive performance clothing.

"Opportunities exist to increase Merino wool's footprint across sports of all intensities, from high intensity sports such as running and cycling through to more gentle pursuits such as yoga and hiking," added AWI Country Manager Japan, Samuel Cockedey. "Co-marketing partnerships such as with [sn]super.natural allow AWI to showcase Australian Merino wool and its diverse benefits in many types of sports."

make it is so highly regarded by adventurers across the world and such an increasingly popular fibre for the outdoor apparel market.

The partnership between AWI and National Geographic also contains a digital component on www.nationalgeographic.com with international reach, providing direct web links for commercially available product from international brands, offering readers a direct click-to-purchase option.

AWI will also host a competition - open to residents worldwide - at Woolmark.com/natgeo, with a Merino wool kit up for grabs. For those wishing to fully immerse themselves in McBride's Colorado adventure, head to www.woolmark.com/vr. B

MORE INFORMATION

www.nationalgeographic.com www.woolmark.com/vr

MORE INFORMATION www.sn-supernatural.com

MERINO WOOL WEATHER RESISTANT FABRIC



Products using the water and wind resistant Neulana Protect fabric, made using Optim™ technology from 100% Merino wool and without any chemical treatments, are now available to consumers across the world. A new double-faced fabric made using Optim technology has also been developed and is currently being promoted by AWI to the textile trade.

Products using the water and wind resistant Neulana Protect fabric, made from 100% Merino wool, are now available to consumers across the world from brands, including Taylor Stitch/CIVIC (USA), ICICLE (China) and Devold (Norway).

The Neulana Protect fabric is one of many innovative and high-value woven Merino wool fabrics that have been developed by the Wool Development Centre (WDC), which was set up in 2013 by AWI along with one of China's leading woollen textile enterprises, The Nanshan Group.



The Alvar Jacket from CIVIC
Available to purchase now from www.wearcivic.
com/products (shipping worldwide)

The fabric is constructed at very high levels of thread density in warp and weft using fine Merino wool yarns that has been stretched, but not set, during Optim processing. It is only when the fabric is wet-finished that the stretch is released causing the yarns to contract, thus leading to an extreme tightening of the fabric structure and the creation of the immensely dense fabric.

After optimising the spinning, weaving and finishing processes, the fabrics made from these elastic Merino wool fibres have enhanced water and wind resistant properties (while retaining all Merino wool's fine properties such as breathability) and are also machine washable, without any chemical treatments.

The fabric has been promoted by AWI at trade shows and in The Wool Lab – AWI's sourcing guide to the world's best commercially available wool fabrics – with major brands, particularly in the sports/outdoor market, now launching products using the fabric. The fabric continues to be promoted by AWI.

NEW DOUBLE-FACED OPTIM FABRIC

The latest Neulana fabric – Neulana Double – is a double-faced pure wool fabric with a soft inner side.

Following the commercial success of the initial Neulana Protect fabric, AWI and Nanshan have developed a new double-faced pure wool fabric manufactured using Optim technology.

The latest innovation, called Neulana Double, is a 100% wool fabric with two very different surfaces. While the outer face is the same as the initial Neulana fabric and therefore smooth, the inner side is soft, lofty and brushed, and is suitable next to skin.

By using special treatment technology, a loose-yet-full structure is formed inside the yarn on the inner side of the fabric, raising the ratio of fabric volume to weight. The result is an air-like, soft handle with voluminous characteristics.

What is of particular interest is that whilst this fabric appears to be bonded, it is actually woven and so eliminates the need for any synthetics, glue, membrane or lining, and is suitable for high-end casual jackets.

"AWI strives to lead the way in the development of technical and performance textiles, both knitted and woven," explains AWI General Manager, Processing Innovation & Education Extension Julie Davies.

"Market demand for technical fibres continues to increase and the development of Neulana Double is our response to this rising demand. Wool is an amazing performance fibre and modern innovations and collaborations have led to the creation of lightweight, technical fabrics for the modernday consumer."

The new double-faced Neulana fabric was launched and showcased by AWI to the textile trade in September at the Première Vision trade show in Paris, and subsequent trade shows at which AWI exhibits, with the anticipation that products using the fabric will be available to consumers next year.

MORE INFORMATION www.woolmark.com





The Merineo swaddling bag aims to help parents settle their newborn quickly and easily in a natural, breathable fabric made from Merino wool.

MERINEO () **SWADDLING BAG** HELPS SETTLE NEWBORN BABIES

A childhood on the family wool-growing property was inspiration for Claire Hausler to create a Merino wool sleeping bag with an innovative design for newborns, under the brand Merineo. The product was tested at Knox Private Hospital in Melbourne, with the trials so successful that the hospital now supplies a Merineo to each newborn at the hospital.

hen Claire Hausler and her husband's son Jack was a newborn, she struggled to find wool sleepwear for him. Having grown up on wool-growing property 'Murrumbereck', in Minhamite, Victoria, she knew all too well that beautiful wool existed and was well-versed in the fibre's natural benefits. So after extensive research and discovering a gap in the Australian market for wool swaddles (sleeping bags for newborns), Claire launched Merineo - a worldfirst design embracing the traditional swaddling method and the modern sleeping bag making it the perfect sleep solution for a newborn baby.

Sourcing 17.5 micron Merino wool from a mill the family farm supplies to, Merineo – a play on the words Merino and Neonate - was born.

"My parents, Ken and Marjorie Hausler and three brothers Alan, Stephen and Glenn are all woolgrowers," said Claire. "When I embarked on this project, I knew beautiful wool existed, but the challenge was where to find the fabric and garments for babies, made from superfine or ultrafine Merino wool."

What's even more interesting about Merineo is that Claire has teamed up with Knox Private Hospital in Melbourne to supply Merineo newborn sleep swaddle bags with the hospital's branding to its newborn babies.

"I contacted the hospital and presented the idea; they liked it because of the health benefits of wool. Part of the work with the hospital involved running a pilot program where we tested the usability of the Merineo on newborn babies.

"It was enormously rewarding when the majority of parents responding to the survey said their baby settled better in a Merineo compared to other products. I put this down to wool's inherent benefits supported by medical research to say babies sleep better in wool, combined with the swaddling design of the sleeping bag. Midwives all say newborns settle better if swaddled."

As an increasing amount of research champions the health and wellbeing benefits of wool, the Merineo sleeping bag is well-placed to highlight the fibre's inherent natural benefits.

"We appreciate Merineo is made from a premium, natural and sustainable fabric with many health benefits," says Healthscope General Manager, Eastern Cluster, Jenny Kent from Knox Private Hospital. "Our parents love the Merineo swaddle bag. It's a practical, quality keepsake for newborns."

Claire's passion not only lies in creating this innovative product, but also in educating new parents about why wool is so good for babies. Presenting at Knox Private Hospital's childbirth education classes, Claire discusses how newborn babies gain weight faster and become more settled when sleeping on wool. $\ensuremath{\mathbf{B}}$

MORE INFORMATION

www.merineo.com

Knox Private Hospital in Melbourne,

one of the largest private healthcare providers in Victoria, took part in trialling the Merineo swaddling bag and now supplies one to each newborn at the hospital.



Leading Chinese ecoluxury brand and Woolmark licensee ICICLE is using imagery and stories from Australian woolgrowing properties to help market its latest premium apparel collection.







ICICLE SHARES AUSTRALIAN WOOL FARM WITH CHINESE CONSUMERS

With the steady increase in demand for premium products by Chinese consumers, AWI continues to partner with luxury brands to build the use of Australian Merino wool in their collections.

An example is leading Chinese fashion brand ICICLE, which as part of its 20th anniversary has strengthened its relationship with AWI's subsidiary, The Woolmark Company, to produce a stunning Autumn/Winter collection made from Australian Merino wool.

Sourcing innovative, luxury wool fabrics from Chinese manufacturers Nanshan and Danmao, ICICLE's 12-piece womenswear collection features a mix of garments including pants, tops, dresses and jackets made using quilted wool denim and the hugely popular Optim™ Protect fabric (see previous page).

The Woolmark-certified collection saw more than 55,000 items of clothing available for sale across more than 220 stores and online, with strong sales recorded particularly for clothing made from the innovative Optim™ Protect fabric.

"In pursuit of the harmonious symbiosis of technology and nature, ICICLE and The Woolmark Company go hand-in-hand to explore the future of fashion," said ICICLE President Shawna Tao.



Well-known Chinese actress **Jiang Shuying**, photographed at **Belgenny farm** in NSW, on the cover of *InStyle China* magazine. She is wearing Merino wool garments from ICICLE, including a bomber jacket made from the innovative **OPTIM™ Protect fabric** (see previous page).

SUPPLY CHAIN TRANSPARENCY

Firmly established as one of China's leading eco-luxury brands, ICICLE has grown into an all-in-one eco-fashion supply chain and is changing the way consumers think about purchasing clothes, highlighting supply chain transparency and shedding light on how clothes are made. Partnerships such as this are vital for AWI to not only promote the benefits of Merino wool, but also showcase the eco-credentials of the fibre

To celebrate ICICLE's 20th anniversary, key representatives from the brand's marketing team came to Australia, visiting a wool-growing property to go back to the source of Merino wool and bringing with them two lucky VIP customers. Visiting 'Arthursleigh' and 'Joppa' near Goulburn, NSW, ICICLE filmed two live-cross shows, unveiling items from their collection and giving tens of thousands of viewers back in China a rare glimpse of life on an Australian wool-growing property.

ICICLE representatives being shown around the Yennora wool stores in Sydney.



In addition, the crew visited AWI's head office to interview AWI CEO Stuart McCullough about the future of wool in China, and also the wool auctions in Yennora. The live videos were also posted on ICICLE's official social media channels as part of the brand's strong multi-media strategy.

INSTYLE CHINA MAGAZINE

As part of the 20th anniversary celebrations, AWI also collaborated with Instyle China for the magazine's sustainability issue. Shot at Belgenny Farm in Camden, NSW, the stunning photo series featured famous Chinese actress Jiang Shuying, who wore six Merino wool looks from ICICLE's latest collection, with one of the images gracing the magazine's cover (see left) and eight other images forming a 10-page feature story in the same publication.

"I was honoured to have the opportunity to visit Belgenny Farm," actress and cover-girl Jiang Shuying told InStyle China. "The farm owner told me that it was established in 1805 and was also one of the first farms in Australia to receive the Merino sheep flock from Spain.

"Merino wool is a high-quality fibre that is natural, renewable and biodegradable. I know that a lot of international luxury brands are working closely with The Woolmark Company and use Australian Merino wool as a result."

AWI RAISING WOOL'S PROFILE IN CHINA

AWI held its inaugural Woolmark Studio at Shanghai Fashion Week, connecting members of the wool supply chain and shining the spotlight on the International Woolmark Prize alumni.

erino wool had a high profile at Shanghai Fashion Week in October, with AWI launching its inaugural Woolmark Studio to highlight the versatility of Australian Merino wool to the Chinese textile trade and media, and this year showcase the 12 finalists from the 2017/18 International Woolmark Prize.

An important focus of AWI's presence was the hosting of a series of workshops and panel discussions involving stakeholders from across the wool supply chain in China. Speakers included International Woolmark Prize alumni Six Lee, Ban Xiao Xue and Victor Zhu from VMajor; Fashion Director of GQ China, Cui Dan; designers Li Yushan and Zhou Jun from fashion brand Pronounce; designer Xu Zhi; Jillian Xin, Buyer from Chinese luxury department store Lane Crawford; as well as representatives from Chinese mills (see image below).

The three-day AWI initiative gave visitors an up-close-and-personal look at the

Australian Merino wool fibre, aiming to inspire, educate and connect the textile supply chain. Aside from the opportunity to learn more about wool, visitors also discovered the latest technology and innovations involved in the development of products made from Australia's luxury natural fibre.

"Woolmark Studio is our new concept in China, bringing together exhibitions, forums, training and education, while connecting all partners in the supply chain – from vendors to retailers, from designers and brands to the media and consumers," said AWI Country Manager in China Jeff Ma.

"We are proud of the debut of Woolmark Studio at Shanghai Fashion Week and the opportunity to this year bring together the winning pieces from the six regional International Woolmark Prize finalists for the first time. Both mark a significant step forward in our development here in China."

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One of the events hosted by AWI at Shanghai Fashion Week, as part of AWI's inaugural Woolmark Studio initiative, was a workshop on Merino wool innovations and technical developments. Speakers from large Chinese mills included (left to right above). Fabrics Design Director at Shandong Ruyi Woollen Garment Group, Wang Yanlan; Sales Director at China's Südwolle Group, Sammy Ye; Deputy General Manager at Zhejiang Xinao Textiles, John Liu; Deputy General Manager at Shandong Nanshan Fabric & Garment Co Ltd, Liu Gangzhong; AWI China Technical Manager, Junny Zhu.



WI's subsidiary, The Woolmark Company, has partnered with emerging Hong Kongbased fashion label Yi-ming to create a series of Merino wool cheongsams. A cheongsam, or qípáo, is a form of stylish traditional dress, usually made from silk, first made fashionable by socialites and upper-class women.

By taking part in the collaboration, AWI aims to build demand for Australian wool in the premium cheongsam market – a new market for wool that has not traditionally used a lot of the fibre.

Yi-ming's Merino wool collection 'Peach Blossom.Haze' was launched at the annual Knitwear Symphony trade event, with renowned model-actress Coco Chiang and actress Corinna Chamberlain walking the runway to show-off the modernised garments, which beautifully highlight the versatility of Merino wool.

More than 1,500 attendees (included knitwear manufacturers, buyers, designers, suppliers and media) were at the launch.

Yi-ming founder/designer Grace Choi
– a former model – reinterpreted the
traditional cheongsam with lightweight
superfine Merino wool fabric and a
modern silhouette to highlight the

female figure, choosing a colour palette of grey, pink and aquamarine.

"We are thrilled to team up with The Woolmark Company for the 'Peach Blossom. Haze' collection," said Grace. "Merino wool is extremely fine and soft. Its natural elasticity and breathability takes our contemporary cheongsam design to the next level. The collection inherits the legacy of Chinese traditional cheongsam, while demonstrating the Oriental beauty of the modern woman."

The Woolmark Company connected Hong Kong-based knitwear designers' society Arte Knit with Yi-ming for the construction of the cheongsams. This is the first time the two have worked with each other on Merino wool versions of the traditional dress.

"Right from the design phase, we experienced interesting reactions for keeping traditional elements of the cheongsam with innovative design ideas," said Arte Knit Director,

Cat Lam. "Wool's natural elasticity and superb drape made it a suitable fibre for achieving the perfect fit of the cheongsam.

"We appreciated the technical support by the knitting factory and the engagement of The Woolmark Company's product development team to make this project successful."

Wool's innate benefits including next-toskin softness, superb drape and excellent breathability help elevate this traditional form of dress into an elegant, luxury item.

"This unique cheongsam collection is made of Australian Merino wool, which is known for its exceptional quality, beauty and fineness," added AWI Country Manager for Hong Kong Alex Lai. "The combination of Merino wool and cheongsam challenges the traditional perceptions of the fibre, and we hope it can draw the attention and interest of the local fashion industry and consumers."

An item from the Yi-ming 2017
Knitwear Cheongsam Collection
made from Australian Merino wool.
Asymmetric cutting and contrasting
colours with different stitches are a
feature of this particular cheongsam.

COOL WOOL IN CHIN

To help build the demand for Merino wool in the growing premium market of China, AWI has partnered with Chinese label Comme Moi to launch a collection made from lightweight Cool Wool.

WI is building on last year's successful partnership with leading Chinese fashion brand Comme Moi, founded by Chinese supermodel and fashion designer Lu Yan, to help launch the brand's new collection that features apparel made from lightweight Cool Wool fabrics.

Cool Wool garments are manufactured from lightweight Merino wool fabrics with a maximum weight of 190 g/m² and a maximum mean wool fibre diameter of 22.5 micron, highlighting the trans-seasonal properties of the fabric and its suitability for warmer climates and travel.

Australian Ambassador to the People's Republic of China, H.E. Ms Jan Adams AO PSM (centre) with the President of China Wool Textile Association, Madam Peng (left), and AWI Country Manager, Jeff Ma (right).

The five-piece Cool Wool collection forms part of a larger wool-rich main line for the autumn/winter season.

A star-studded guest list attended the collection's launch in Beijing, including famous Chinese actors, singers, models and H.E. Ms Jan Adams AO PSM, Australian Ambassador to the People's Republic of China.

"I love wool," said Ms Adams. "The very elegant and dramatic collection that we're

able to see here today really will strike a chord [with consumers]. I think it will appeal to the very fashionable women here in China, who are seeking something different in the fabrics they choose. The Comme Moi collection is very dramatic and stylish, and the textures from the wool fabrics really give it a special class."

Lightweight, breathable and crease-resistant, the Cool Wool designer pieces from Comme Moi show how Merino wool can enable cosmopolitan women to stay sophisticated and feel luxurious.

"This year, our partnership with Comme Moi focuses on Cool Wool, highlighting wool as an all-season fibre that is easy to care for. This is our answer for the on-the-go lifestyles of modern women," said AWI country manager for China Jeff Ma. "As we enter the second season of our collaboration with Comme Moi, Lu Yan has also been named as one of our brand ambassadors for China."

China continues to remain a very significant market for Australian wool, both in terms of manufacturing and luxury consumption.

"AWI should be congratulated for what you've been able to do in establishing productive partnerships here in China – working with supermodels, designers and interesting people is a great way to make a mark in this incredible country ... it's a brilliant strategy," said Ms Adams.

"We are already exporting up to \$2.4 billion of Australian wool to China each year. This collaboration will help continue to drive the future demand for ever-more sophisticated fabrics and uses here in China, rather than the old model of scouring our wool here before exporting it to Europe. We're in a whole new world and I see a lot of potential here.

В

"I'm very proud of Australian wool."











CAMPAIGN FOR WOOL WOOL WOOL WELL WOOL WELL WOOL

The Campaign for Wool's annual 'Wool Week' celebrations returned to the UK with 16 days of activities all shining the spotlight on the natural benefits of wool to drive consumer demand for wool products. The extended program of events encompassed 340 industry/retail/brand supporters.

The global Campaign for Wool marked its eighth successful year in the UK with its annual 'Wool Week' held in October.

The Campaign was initiated in 2010 by its patron, His Royal Highness The Prince of Wales, to raise awareness amongst consumers about the unique, natural, renewable and biodegradable benefits offered by the fibre. The initiative encourages collaboration between an international community of woolgrowers, major fashion designers, retailers, manufacturers and interior designers.

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

MORE INFORMATION www.campaignforwool.org

WOOL FUSION

The UK Wool Week's major event this year was 'Wool Fusion': a pop up installation on Baker Street in central London, which showcased some of the best fashion and functional apparel as well as wool interiors including furnishings, fabrics and flooring.

The installation included a series of high impact photography and film by leading publication *Wonderland*, alongside the textured sensory experience of wool in the wide range of products on display.

A program of workshops by artisans, talks from fashion and retail experts, and special events was held throughout the exhibition.

Pictured here is a snapshot of some of the events and activities that took place at Wool Fusion.



Owner of the **Brora** apparel brand, **Victoria Stapleton**; creative director of **Harris Tweed Hebrides**, **Mark Hogarth**; TV and radio presenter **Pips Taylor** – who took part in one of the
panel discussions at Wool Fusion.



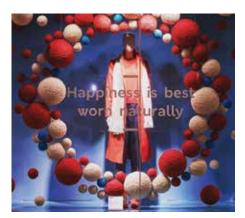
Part of the inside of the Wool Fusion pop up installation for Wool Week in central London.



A macramé wall hanging workshop was one of the hands-on workshops at Wool Fusion.



One of the many stylish photos of wool from leading publication *Wonderland* that was displayed at Wool Fusion. *PHOTO:* Bartek Szmigulski



Part of **Marks & Spencer's** Wool Week shop window display.



Getting the message across in a window display at tailors **TM Lewin**.



PHOTO: Bartek Szmigutski

Campaign for Wool collateral at retailer **Brora** during Wool Week.

WOOL IN THE SHOPS

Key retailers and designers once again threw their support behind the Campaign for Wool through in-store activities and shop window displays across the UK – including Marks & Spencer, John Lewis, Jack Wills, Brora, TM Lewin, Walker Slater, Finisterre, Smalls, Pringle of Scotland, and Wool and The Gang. An increase in the use of Wool Week point-of-sale material was seen and a wider distribution reach across the UK.

Bicester Village – a luxury village-style shopping area in Oxfordshire, only an hour from London, and home to more than 130 boutiques of world-famous brands – had an exclusive pop-up boutique with Luke Edward Hall, featuring more Campaign for Wool retail partners including Abraham Moon & Sons, Ross Barr, Chinti & Parker, Derek Rose, John Smedley, Clements Ribero, Markus Lupfer and Begg & Co.

There were many other highlights, including clothing brand Jack Wills holding a Wool & Whiskey evening discussing the heritage and craftsmanship of both industries. Vivienne Westwood opened its doors to two special evening events for customers, as did British luxury label Daks. The Brora brand released a collaboration with 2015/16 International Woolmark Prize winners Teatum Jones including some key Merino wool pieces. Dashing Tweeds held in store weaving demonstrations. Designer Christopher Raeburn closed Wool Week by hosting an 'off-cut' animal making workshop.



WOOL EDUCATION

Leading textile industry experts and university students from across the UK gathered in Yorkshire for two days for the 4th annual 'Making it in Textiles' conference to discuss career opportunities within the textiles industry. This important initiative, sponsored by the Campaign for Wool,

offered mill tours, detailed discussions and access to industry expertise for the next generation of wool textile talent.

The conference was attended by 120 students from 25 universities across the UK and featured speakers from all sectors of the wool and textiles industries.

University students during a mill tour in Yorkshire, as part of Wool Week.

#WOOLWEEK

Retailers, brands, consumers all had the chance to celebrate Wool Week on social media using the #woolweek and related hashtags. Here is a sample of images posted.



Pringle of Scotland The Shackleton Company





Lauren Aston Designs Justine Tabak

CLICK TO BUY THE BEST WOOL LOOKS ON

FARFETCH.COM

Through a collaboration with AWI, luxury online retailer Farfetch.com has shone the spotlight on Merino wool during its sustainability month, highlighting the latest wool looks from some of the world's best fashion designers.

With the world becoming increasingly digital, the role of e-commerce retailers continues to evolve to be more than just a platform to purchase clothes and other goods.

Revolutionary omni-channel shopping platform Farfetch.com is one such site that is taking the fashion industry by storm. The site has more than 17 million monthly views and more than nine million fashion-forward consumers in all corners of the globe.

Targeting this digital-savvy audience, AWI has partnered with Farfetch.com to create a data-driven marketing campaign that targets luxury consumers and drives demand for Merino wool through the Farfetch.com retail shopping platform. The partnership is intended to form the basis of a long-lasting collaboration between AWI and one of the world's most prominent shopping platforms for luxury fashion.

Held during Farfetch's sustainability month, the collaboration included an editorial showcase titled Wonders of Wool, highlighting some of AWI's most exciting menswear and womenswear fashion partners and their unique interpretations of Merino wool. Featured designers include Raf Simons, Dion Lee, Strateas Carlucci, Ex Infinitas, macgraw, Thom Browne and Gabriela Hearst. Each designer talks about what they love most about working with the fibre, along with how they have used it in their latest collection.

The partnership was promoted by a dedicated electronic newsletter to more than 200,000 targeted subscribers as well as via Farfetch's social media channels, digital advertising, home page presence and two bespoke landing pages which not only educate consumers about wool but offer direct links to purchase the wool garments, ensuring the freshest Merino styles are easily accessed from the primary shopping navigation.

The content will be translated into nine languages including Chinese, Japanese and Korean and Russian.

MORE INFORMATION www.farfetch.com

"We worked with [Country Women's Association of Australia] embroiderers on all the wool hand embroidery in the collection. These women are all about supporting our rural communities and they are a truly beloved and iconic group of Australian women."

MACGRAW







"I appreciate that The Woolmark Company encourages brands to come up with innovative ways to work with Merino wool. It is a material that I love and often use in my own collections. It feels very natural for me to create something special using the finest wool in the world."

RAF SIMONS









"Wool is a seasonless fabric. Its natural drape and shape-retention qualities are ideal for tailoring, and it's an efficient temperature regulator, so is perfect for knitwear that sits close to the body."

DION LEE





"We love the idea of creating items that you wouldn't expect to be made from wool "

STRATEUS CARLUCCI



"[Wool is] breathable, keeps you warm, is crease-free and has a beautiful, clean appearance at any time of the day. It's also one that will last decades, which is important for those investment pieces."

EX INFINITAS



AWI has collaborated with Harper's BAZAAR UK fashion magazine and leading department store Harvey Nichols to promote the best Merino wool fashion for the Northern Hemisphere's winter season.

he UK remains one of the most The UK remains one of the important and dynamic markets in fashion apparel - and with plummeting temperatures across the country this winter, now is the perfect time for AWI to persuade Brits to wrap up in wool.

One of the marketing initiatives recently undertaken by AWI in the UK is with fashion magazine Harper's BAZAAR, which is one of the most significant voices influencing the purchase behaviour for womenswear.



The collaboration includes the production of a feature article 'Laid-back luxury' that includes the latest fashion from leading designers including International Woolmark Prize winner Gabriela Hearst, Victoria Beckham, Alexander McQueen, J.W. Anderson, Stella McCartney and Isabel Marant.

"With more designers than ever embracing natural fabrics such as Merino wool for autumn/winter 2017, wool has truly never looked so chic," states Harper's BAZAAR. "From the slouchy jumper you'll wear year after year to the smart skirt your work wardrobe is crying out for, these are the five Merino wool pieces that will transform your wardrobe this season."

The feature has a digital presence on Harper's BAZAAR UK's website, and a suite of digital ads and social media posts were also created to promote the latest in Merino wool fashion.

Cross-media collaborations such as this provide valuable publicity for Merino wool and the Woolmark brand and cements the fibre's rightful place in the fashion industry and with key consumer markets across the world.

All of the wool and wool-rich items of clothes that featured in the Harper's BAZAAR photoshoot are available to buy at iconic retailer Harvey Nichols, both in stores and online, with the photoshoot also showcased on the retailer's website.

A number of items have already sold out which is a testament to the early success of the collaboration.

MORE INFORMATION

www.harpersbazaar.com/ uk Search: 5 wool pieces www.harveynichols.com/news/features





More than one million Japanese shoppers experienced a recent AWI-supported Merino wool campaign across four department stores in the popular upmarket Tokyo shopping district of Ginza.

erino wool has recently been promoted as the ultimate luxury fibre to Japanese consumers at one of the country's biggest fashion events, with AWI a main sponsor of Ginza Fashion Week in October.

Under the banner Luxury Merino Wool X Ginza Fashion Week, three of Japan's leading department stores – Matsuya Ginza, Ginza Mitsukoshi, WAKO – and shopping complex Tokyu Plaza Ginza with the support of publisher Hearst Fujingaho promoted Merino wool as a premium, natural fibre that is essential to luxury fashion.

More than one million shoppers experienced the Merino wool campaign across the four department stores, with more than 50 brands participating and featuring unique point-ofsales collateral.

Luxury shopping mecca Ginza Six hosted the opening event – a fashion show presenting the latest wool trends from brands including Paul Smith, Cruciani, Margaret Howell, Akris, Akira Naka and Taro Horiuchi, with consumers able to experience the versatility of wool. Renowned Japanese actress Tsubasa Honda also took part in a talk show discussing the benefits of wool, with images

of her holding a lamb (see top-left Instagram image below) broadcast across Japanese TV networks and further promoting the use of wool in high fashion.









Examples of photos uploaded by consumers to their **Instagram** accounts during the promotion.

"Ginza Fashion Week is one of the most upmarket fashion events in Japan, held in the luxury fashion district of Tokyo," said AWI Country Manager Japan, Samuel Cockedey. "The presence of Australian Merino wool at this prestigious event was the perfect platform to showcase the versatility of the fibre to luxury consumers, as well as champion many of wool's benefits. We were so lucky to have the support of Tsubasa Honda at the opening event, ensuring the latest wool fashion was shown right across the country."

Shoppers were able to take part in a social media competition, with the main prize being a trip to Australia to visit the source of Merino wool. Find the Sheep' saw sheep figures strategically placed in major retail centres throughout the campaign, with visitors invited to take a photo with a sheep and upload it to their Instagram account using the hashtag #lovemerinowool and start following the Instagram page of The Woolmark Company in Japan (see examples left).

"Social media campaigns such as the #lovemerinowool campaign are extremely important for us," continued Mr Cockedey. "Not only does it remind Japanese consumers that Merino wool comes from the wide, open pastures of Australia, but it also helps to build our following to allow us to continue spreading the great story of wool."







Ginza Mitsukoshi department store (top) took part in the promotion. Wool designs by Cruciani (bottom far left) and Paul Smith (bottom left) being showcased to consumers. The provenance of wool was highlighted in-store during the promotion (bottom right).

TALKING TURKFY

With Turkey's growing domestic market becoming increasingly important and with the country boasting a strong local manufacturing industry, AWI invests time and resources in building the presence of Australian Merino wool in Turkey. Here we feature three recent initiatives in this country that overlaps Asian and European markets.

MERINO A WINNER FOR **ATHLEISURE**

Turkish circular knitter and Woolmark licensee Hasyün collaborated with AWI to present the brand's Australian Merino wool athleisure offering at the Première Vision trade show in Istanbul and discuss what they call "next generation fabrics".

asyün is well-known for producing Australian Merino wool jersey base-

100% 18 5

Australian

sports top

Merino wool

from Hasyün.

micron

layer garments for the global sports/outdoor market and underwear for the Turkish local market.

Using 18.5 micron Australian Merino wool, Hasyün has worked with AWI to design, develop and manufacture high-performance technical apparel, including leggings, T-shirts and base-layers.

"The cloths developed by us are wearable both in summer and in winter," said Ahmet Yibar of Hasyün. "Wool is hygroscopic: it absorbs up to a third of its own weight of moisture vapour at high humidity without feeling wet.

"We can knit the wool in any gram desired, whether thick or thin knitting wool from 135g to 195g/m², by using our knitting technology. And this makes it possible for us to develop products usable in all seasons."

> MORE INFORMATION www.hasyun.com.tr

The Hemington website featured information about the source of Merino wool and a six-minute film titled 'The Story of Merino', as well as showcasing Merino wool apparel for consumers to buy.





The opening spread of a 16-page feature in **Turkish lifestyle magazine** *Atlas* about the Merino wool supply chain used by Turkish menswear brand Hemington. Pictured is the shed at 'Grathyln' in Mudgee.

THE STORY OF MERINO

AWI has partnered with leading Turkish menswear brand **Hemington** to produce a Woolmark-certified extrafine Merino wool collection.

omprising a mix of men's sweaters, turtlenecks and cardigans in a variety of colours, the collection is part of Hemington's latest Autumn/Winter collection and is made using Australian Merino wool, spun in Italy by Zegna Baruffa Lane Borgosesia.

To further support the collection's launch, Hemington and Turkish lifestyle magazine Atlas travelled to Australia to visit the source of Merino wool. Visiting 'Grathyln' in Mudgee, NSW, both companies saw how Merino wool is produced; they then featured the sheep and farmers in articles and consumer

education via point-of-sale materials and information on the Hemington website.

A short film titled 'The Story of Merino' was also created, documenting the farm to fashion journey: starting in Australia, then travelling to Italy before finally finishing in Turkey. It is available to view on the Hemington website.

"Merino wool has been the primary component in Hemington collections since the beginning," a Hemington spokesperson said. "Merino is a miracle of nature and Hemington carries this miracle to the wardrobes of its customers. We give great importance to our partnership with The Woolmark Company and consider it a great asset for Hemington."

> MORE INFORMATION www.hemington.com.tr

MERINO PROMOTED TO THE TRADE

AWI promoted Australian Merino wool at the prestigious 10th annual Fashion Week conference in Istanbul, organised by the Turkish Clothing Manufacturers Association.

he conferences theme ... highlighted reasons why Turkey is he conference's theme 'Why Turkey' the right country for investment. AWI's marketing arm, The Woolmark Company, was a key supporter of the conference and AWI UK & Turkey Country Manager Nigel Gosse gave a keynote speech, promoting Australian Merino wool to the 750-strong audience representing a wide range of businesses.

A key theme in his presentation was 'from farm to fashion and back again', which emphasised Merino wool's natural, renewable and biodegradable attributes. It also highlighted the fibre's inherent versatility, suitable for any season, and its high-performance qualities which are increasingly being recognised by the fashion and sports industry.



AWI UK & Turkey Country Manager Nigel Gosse presenting at the annual Fashion Week conference in Istanbul.

"Since the early 1970s, we have been working with the Turkish industry and its strong manufacturing base. Increasingly, we look to develop marketing collaborations to link the supply chain and bring exceptional choice through Merino wool to the consumer," Mr Gosse said. В **Dutch shoppers recently experienced a woolly wonderland** as high-end department store De Bijenkorf showcased the eco-credentials of Australian Merino wool.

ncreasingly, global consumers are becoming more interested in not only how their clothes are made, but also where they come from. Wool has a great story to tell when it comes to its eco-credentials, making it the responsible choice for today's conscious consumers.

Highlighting wool as a natural fibre,
AWI recently collaborated with high-end
department store De Bijenkorf in The
Netherlands to showcase the eco-credentials
of Merino wool and highlight the inherent
premium benefits of the fibre.

For two weeks, seven de Bijenkorf stores – Amsterdam, The Hague, Rotterdam, Eindhoven, Maastricht, Amstelveen and Utrecht – shone the spotlight on natural fibres as part of its Autumn/Winter campaign and displayed wool-themed window installations, showcasing the latest wool fashion along with macramé wall hangings.

Inside the stores, consumers were invited to explore the unique farm to fashion journey, with virtual reality headsets transporting

Dutch shoppers to an Australian woolgrowing property, and real samples of Merino wool – from each stage of the fibre's journey from the sheep's back to fabric – were displayed for customers to touch.

Importantly, high-profile fashion brands such as adidas, Max Mara, Tommy Hilfiger and International Woolmark Prize winner Gabriela Hearst had their latest wool fashions available to buy.

Shoppers could also participate in a macramé workshop (textile production using knotting, rather than weaving or knitting).

AWI trained staff in all seven stores about Merino wool, so they could better influence their customers' purchasing decisions.





Seven De Bijenkorf stores across The Netherlands showcased the farm to fashion journey of wool as well as beautiful wool apparel that customers could buy.



Window displays at the De Bijenkorf store in **Eindhoven** in The Netherlands highlighting the soft and tactile nature of wool.

The 'hero(ine) shot' of Dutch department store De Bijenkorf's marketing campaign 'Touched By Wool' in which the spotlight was shone on the natural benefits of Merino wool.









LUDWIG BECK UNVEILS NEW MERINO KNITWEAR COLLECTION

Popular retailer Ludwig Beck gave its Munich store a Merino makeover, unveiling a knitwear collection and giving shoppers a farm to fashion experience.

conic German retailer Ludwig Beck has once again collaborated with AWI's subsidiary, The Woolmark Company, to unveil its latest Merino wool knitwear collection.

In time for winter, Ludwig Beck's Munich store on the Marienplatz – the central square in the historic centre of the city – received a wool makeover, with a 17-metre window display, as well as unique point-of-sale materials and an audio-visual show in-store promoting the farm to fashion journey.

Real samples of Merino wool from each stage of the fibre's journey were on display, allowing customers to see and feel pieces of fibre and fabric and enhance their understanding and appreciation of the process involved to make fine Merino wool apparel.

"We are really proud to have this good and long-lasting partnership with The Woolmark Company and our production partners," said Ludwig Beck CEO Christian Greiner. "Together, we can present the Merino wool collection to a wide range of consumers."

Ludwick Beck's Winter 2017 knitwear collection comprises extrafine Merino wool items for menswear and womenswear. With nine styles in 14 colours for women and three styles in four colours for men, the garments are machine washable and easy to take care of.

Crafted from luxurious Biella Yarn by Südwolle and knitted by Woolmark licensee Samtex, the knitwear is luxuriously soft next to skin and offers premium quality and comfort. For the first time, Ludwig Beck will also sell three styles from the Merino wool knitwear collection in five colours online at www.ludwigbeck.de.

"AWI ran a successful campaign with Ludwig Beck last year, with our technical staff assisting in product development and yarn selection for the retailer's knitwear collection," said AWI CEO Stuart McCullough.

"We also provided in-depth training to Ludwig Beck retail staff, providing valuable knowledge which can then be imparted to their customers. We are pleased to once again partner with this iconic retailer and promote the unique properties of Australian Merino wool."

MORE INFORMATION www.ludwigbeck.de



In the latest marketing campaign of Woolmark licensee M.J. Bale. the Australian tailor's Cool Wool suits (and English weatherman,

> torture test in the hottest temperatures on the planet.

Alex Beresford) survived a

ustralian summers can be true-blue scorchers. When the mercury starts to soar, many men start to get a little hot under the collar, with Australian tailor M.J. Bale claiming 93% of Aussie men find it difficult to dress for the heat and still look good.

Fans of a torturous social experiment, M.J. Bale wanted to prove that men could remain comfortably cool in the hottest conditions and so put its Cool Wool suits to the ultimate test. Recruiting the help of English weatherman Alex Beresford, M.J. Bale sent the unsuspecting Brit on a heat-seeking mission to the hottest parts of earth, chasing the sun for extreme live weather forecasts and broadcasts in the world's hottest places.

From Dubai, Alex travelled to Rajasthan, Morocco and finished in Death Valley, trawling the Sahara Desert, climbing scorching sand dunes and enduring extra-hot curries in between, Alex proved he could keep his cool, no matter how high the temperature. Despite the unsuitable forecast, enduring an average temperature of 43°C, Alex barely broke a sweat, keeping cool, calm and collected with the M.J. Bale Woolmark-certified Cool Wool suits looking perfect, while those around him slowly lost their cool in the heat.

"It might be my job to predict the hottest places, but I've never been asked to chase them before," said Alex. "Not many guys could keep their cool in intense humidity, scorching temperatures and zero breeze – but nothing cracked me while wearing the Cool Wool suit. It's definitely the most extreme weather forecast I've done yet."

M.J. Bale fans were able to follow Alex's adventures from the comfort of their airconditioned home, watching live Facebook videos and following the adventures on Instagram. The strong digital strategy reached more than 1.3 million people via social media,



Filming had to be halted for a while in Death Valley, USA because of the record temperatures, but Alex wearing M.J. Bale's Ferraro suit kept his cool.



Another day, another record 44°C temperature, bathed in the sun across Morocco - from the sands to the souk and Sahara - all while wearing the M.J. Bale lain suit.



In spite of the humidity and 39°C temperatures that Alex experienced in India, Alex raised a minimal sweat wearing his Cornaro M.J. Bale suit, pictured here on blinding white salt lakes.

half a million video views on Facebook and more than 65,000 VIP customers were emailed the benefits of Cool Wool and Alex's antics direct to their inbox.

For the more adventurous, customers were invited into M.J. Bale stores to try on Cool Wool suits with a change-room twist. Saunas had been installed in select stores, allowing for customers to momentarily crank up the heat without getting hot under the collar and experience Cool Wool first hand.

"Looking good is a struggle when you live in one of the hottest countries in the world, with many men sacrificing style to stay comfortable in the heat," said M.J. Bale Founder and CEO Matt Jensen. "With dressing well in the heat a concern for many men, we want to show gents no matter how hot the forecast, they can still stay looking smart and feeling cool.

"Our 100% Merino Cool Wool suits are designed to be incredibly breathable, so as the weather starts warming up and we head into the notoriously heated racing season, Aussie gents can get suited up without the usual stress."

MORE INFORMATION

www.mjbale.com/ Coolest-Suit-In-The-Planet.html Iconic Savile Row tailors Gieves & Hawkes celebrated Merino wool for the launch of their Autumn/Winter 2017 collection, with a strong digital and in store campaign across the UK and China.



GIFVFS HAWKES

WOOL CAMPAIGN TAILORED FOR THE UK AND CHINA

Iconic Savile Row tailors Gieves & Hawkes has partnered with AWI - promoting their latest collection and educating both consumers and retail staff about the natural benefits of Merino wool.

WI continues its longstanding relationship with Savile Row icon Gieves & Hawkes, reaffirming Merino wool's position as the ultimate luxury fibre for menswear.

The joint collaboration saw the promotion of Merino wool and the Woolmark brand, with a major focus on both the UK and China – two key markets for the iconic tailors. Merino wool-dedicated imagery and articles for the Autumn/Winter 2017 season were distributed through Gieves & Hawkes' digital and traditional channels, including email newsletters, online editorial, social media and print magazines.

Two consumer-facing events were held for Gieves & Hawkes consumers: one at their flagship No. 1 Savile Row store in London, and one in Hong Kong which coincided with the opening of their new Harbour City Store.

Education was a major focus of the campaign, with wool suit care guides handed out to consumers, and retail staff also receiving training to ensure they could pass this knowledge onto customers.

"Gieves & Hawkes has hundreds of years' experience of working with wool, with their expertise receiving global recognition," said AWI Country Manager UK & Turkey Nigel Gosse.

"With wool being at the core of their product, the partnership kicked-off with the launch of their Autumn/Winter 2017 collection, bringing their product story to life and celebrating Merino wool's premium qualities, eco-credentials and natural provenance."

MORE INFORMATION

www.gievesandhawkes.com

STUDENT DESIGNERS HIT

RIGHT NOTE WITH WOOL4SCHOOL

Kylie Minogue, Ed Sheeran, Lady Gaga, SIA and Taylor Swift were among the many superstars that Australian school students designed for as part of this year's Wool4School competition.

ow in its seventh year, AWI's Wool4School competition invited students to design an onstage outfit, made from at least 80% Australian Merino wool, for their favourite musician. With more than 13,000 registrations and almost 1,000 final entries, this year's competition was clearly a hit.

While participating students do not have to make their designs, the students illustrate and carefully describe the textiles used in

their work. To assist them – and to educate them about wool – the students are provided with access to an extensive wool resource

library and free samples of both knitted and woven wool fabric in the classroom

The Year 10 winner, Alice Wang from St George's High School in NSW will see her design for Australian singer-songwriter Sia become reality with leading Australian designer Jonathan Ward making the garment. Alice described Wool4School as an "eyeopening experience" and was amazed at the versatility of Merino wool.

Year 12 winner Chanelle Davenport from Innisfail State College in Queensland has won a scholarship to study at the prestigious Whitehouse Institute of Design. Institute founder Leanne Whitehouse said it was an honour for the Institute to partner

> with AWI and contribute to the advancement of design in Australia through Wool4School.

"Chanelle's knowledge of Merino wool and her use of Merino innovations in her on-stage design for Kylie Minogue not only demonstrates a strong focus on trend, but she also shows a powerful sense of fashion, combining a measured balance of proportion, texture and colour," said Ms Whitehouse. "I would also

like to extend congratulations to the runnerup Isabella Miller, and highly commend all 2017 Wool4School applicants for the high standard of their very creative entries."



FROM LITTLE THINGS BIG THINGS GROW

A small school in Boorowa, NSW, is changing the way city students learn about agriculture, with the Year 6 students taking the lead and showcasing life on the land.

t's not too often that Year 6 students become the teachers, or that the gap between city and country school students in bridged. Yet that's exactly what a school in Boorowa, NSW, has been doing for the past 17 years.

The Boorowa Educational Excursion Program (BEEP) was initiated in the year 2000 at St Joseph's Primary School, to foster an awareness and appreciation of local wool and rural enterprises and extend that knowledge to students from city schools.

During a three-day excursion, the Year 6 students meet with woolgrowers and other local farmers to learn about on-farm and agricultural issues.

"There is so much to find out in a rural area and so many generous people to help answer the questions," explains BEEP founder and St Joseph's school teacher Nicky Merriman. "Everyone has a vested interest, it seems, in sharing real knowledge in a real environment to young people in their community.

"In Boorowa, more than 30 farmers, graziers, business owners and NGOs each donate about an hour of their time to meet the students on farm, answer questions, show their sheep, examine a fleece, compare plant roots, checkout grapevines, watch cattle being weighed or feel the latest Merino wool fabrics destined for export. Even just being in the bush listening and learning about the role of birds is included in the program."

Each student then selects a topic of interest to them and continues their studies to put together individual presentations. Later in the year, the younger students become the teachers, explaining what



Each year, Year 10 agriculture students from PLC Pymble in Sydney travel to the NSW wool-growing town of Boorowa to further their knowledge of rural enterprises. Known as the Boorowa Educational Excursion Program, it aims to help bridge the gap between city and country students.

they have learned to their city peers who have travelled to Boorowa.

During the past 17 years a number of city schools have taken part in the BEEP program, with Year 10 agricultural students from PLC Pymble, Sydney, visiting each year for the past 10 years.

Pages from the Year 12 and Year 10 winning entries of the 2017 Wool4School competition, showing how wool could be incorporated in designs for music sensations Kylie Minogue (left) and Sia (right) respectively.



Winner of the Teacher Prize in 2017, Amy Kleindienst from Willoughby Girls High School in NSW said Wool4School was easy and fun to implement into the classroom and engaged the students given both the design brief and the many resources available. В

MORE INFORMATION

wool4school.com

"It is a unique situation to have students in Year 6 teaching Year 10 students," says Mrs Merriman. "The relationship seems to be a perfect fit. Year 6 students increase their level of technical language and become leaders in knowledge and activities, while Year 10 students experience outdoor, hands-on farm life with access to farmers to ask questions more relevant to their curriculums.

"The BEEP program is about planting seeds of knowledge for the future. It is about a community of teachers, who happen be farmers, and learners, who all share a common goal. It is their wish that other communities will look for the possibilities in their own areas and invite others in to learn about 'all things rural' for a lifetime."

AWI's 'Learn About Wool' kits - which contain fact sheets, fibre and fabric samples, posters and additional online resources to use in the classroom - are utilised in the BEEP initiative. Further information is at www.learnaboutwool.com







Winner of The Woolmark Company Texprint Award Rosie Moorman with some examples of her winning woven wool fabric.

UK TEXTILE GRADUATES SHINE SPOTLIGHT ON WOOL

AWI continues to encourage the use of Merino wool in textile designs, by once again sponsoring an award at Texprint - the UK's leading graduate design prize.

Woven textile designer Rosie Moorman was announced the winner of the 2017 Texprint Award sponsored by The Woolmark Company, at the Première Vision trade show in Paris. The award shines the spotlight on the best emerging textile designers studying at colleges across the UK.

Rosie, a graduate from Loughborough University, was praised by judges Maurizio Sarti of illustrious Italian textile manufacturer Lanificio Faliero Sarti and radical UK designer Charles Jeffrey for her experimental use of colour.

Those eligible for The Woolmark Company Texprint Award must incorporate a minimum of 60% Merino wool into their textiles and demonstrate a good understanding of the fibre's qualities and potential application in fabric. The Woolmark Company - the marketing subsidiary of AWI - has supported this special prize for seven years.

No stranger to wool, Rosie works solely with noble fibres and hand-dyes her work. The winning collection was inspired by the landscapes and moorlands of her native Yorkshire.

"Rosie's work uses colour beautifully and she has developed her ideas so well," said Roberto Sarti about the young designer's work. "There is a spirit of experimentation, but she also shows a good technique for industry. We are happy to be part of the judging team as The Woolmark Company is making a great job trying to discover and help new talent and designers."

By winning the award, Rosie will receive ongoing support from The Woolmark Company and opportunities to learn about developments, innovations and the supply chain for wool. In addition, The Woolmark Company sponsored a dedicated presence for Rosie at the Intertextile Shanghai trade show in October.

"As a firm believer of education and fostering the development of future design talent, The Woolmark Company is pleased to once again support this important award scheme and invest in the future of the textile industry, whilst highlighting the innovative nature of Merino wool," added AWI General Manager, Processing Innovation & Education Extension, Julie Davies.

Animal Production Specialist Daniel Schuppan from Jamestown in South Australia says a Merino enterprise provides flexibility, allowing producers to target different markets in the meat and fibre sectors.

DANIEL'S TOP 3 REASONS TO CHOOSE MERINOS:

- Flexibility Merinos allow producers to target different markets in the meat and fibre sectors.
- **Profitability** In 2016 benchmarking figures, Merinos produced \$60/DSE.
- Adaptability Merinos run in a range of environments – pastoral, cereal and higher-rainfall.

erinos offer farmers a profitable option with the ability to produce a gross margin of up to \$60/DSE for self-replacing Merino flocks in the cereal zone according to 2016-17 The Sheep's Back benchmarking program figures, says Landmark Animal Production Specialist Daniel Schuppan.

"In a Merino enterprise, we have a magnificent product in wool and meat; there are opportunities for producers to innovate, differentiate and engage consumers," he said.

Mr Schuppan, who works with producers across South Australia and runs several farm benchmarking groups, says current high prices for wool, meat and breeding ewes meant great returns for the Merino sector but you still need a good livestock system to "capture the good times".

"There's good demand for wool, then on the meat side, producers have a range of options – running a self-replacing flock, finishing wether lambs or selling as stores, selling 1.5-year-old surplus breeders, selling cast-for-age ewes for mutton or joining all or some Merino ewes to British breed rams to produce a first cross lamb. There's many options which enable Merinos to fit into a production system that best suits a producer's management and farm capabilities," he said.

"Merino ewes can be joined all year round as there is less impact from day length on fertility; so you can target them to lamb early and finish lambs on green feed, or lamb later and finish on stubbles, irrigation or in a feedlot.

"Whether it's in the pastoral, cereal or even high rainfall zones, Merinos fit in well across the board and can adapt to a range of environments."

Mr Schuppan says two key factors in a self-replacing Merino enterprise are feed and genetics.

"You need to focus on growing good quality feed and utilise as much as possible," he said.

"With genetics, it all comes down to setting breeding objectives for your flock, and then aligning them to a stud that fits."

Mr Schuppan said current high replacement ewe prices had led some producers back to breeding more Merino ewes.

"Many producers are preferring to breed ewes rather than buy in replacements," he said.

"Breeding a self-replacing Merino flock does have several benefits, particularly from a biosecurity standpoint. But at the end of the day it comes back to management, the money you make comes from management, through your pastures, genetics, animal health and marketing."



Animal Production Specialist Daniel Schuppan.

Mr Schuppan says it is important to keep enterprises "simple", have scale and get operations done on time.

"For farmers who only have 800 to 1000 ewes, focus on one enterprise with your flock," he said.

"It's better to have a decent line of wool and surplus sheep to sell, rather than multiple enterprises. It helps to minimise labour requirements. The benefit of having a first cross lamb in the system to offload early for seasonal risk management reasons can be overcome with different tactics.

"Focus on keeping it simple, for example with a self-replacing Merino flock in a 12-month period you can have one lambing, one or two shearings and sell a marketable line of surplus ewes, 1.5-year-old ewes and wether lambs.

"Also, if you need advice to achieve your aims, then look to employ outside help where needed, whether that's through using someone else to select and buy your rams, or class your sheep, or review the whole livestock enterprise plan and do some budgets."

The Australian Association of Stud Merino Breeders' (AASMB) Breed More Merino Ewes campaign, launched in

September last year and supported by AWI, highlights Merinos are achieving profitable results for producers compared to other breeds and enterprises across Australia in a range of production systems and rainfall zones.

The campaign acknowledges the Merino ewe as the backbone of the Australian

sheep industry and encourages producers to increase Merino breeding ewe numbers in their enterprise mix.

The two case studies on these two pages are part of AASMB's campaign.

MORE INFORMATION www.merinos.com.au



BREED MORE MERINO EWES

✓ BEST NATURAL FIBRE ✓ GREAT TASTING MEAT ✓ MOST PROFITABLE BREED



MERINOS

PUSH PROFITS UP

Merinos consistently return profits of up to \$60/DSE and \$40/DSE for lambs at Sam Lyne's 'Riccarton' property at Campbell Town, Tasmania.

SAM'S TOP 3 REASONS TO CHOOSE MERINOS:

- Profitability Merinos generate an income of up to \$60/DSE for wool and \$40/DSE for lambs.
- Environment Merinos are a better match to the region where the Lynes farm, not having the feed requirements in the drought years.
- Spread risk Merinos provide a dual-income from meat and wool, with lambs sold for \$6.50/kg.

S am farms with his father Crosby and brother Angus, running 7,300 ewes on the 2,600ha property, with 3,500 of the ewes run as a self-replacing Merino flock and the remainder mated to terminal and composite sires.

Sam said running a self-replacing Merino flock had helped to spread risk with dual income streams from meat and wool.

"Meat breeds are just relying on a strong lamb market," he said. "We sell Merino lambs to a nearby abattoir that opened up a market five years ago, with the Middle East and they like 12-18kg Merino lambs. It allows us to sell our Merino wether lambs earlier and still make decent money.

"If we were to go down the meat breed road it would be hard to get back into Merinos, whereas Merinos offer that

flexibility. If you have the bigger meat breeds, you have less sheep and you have the associated feed requirements which isn't ideal for us in our unreliable climate."

The other half of the Lynes' business comprises cropping barley, wheat, canola, peas, poppies and seed crops.

The Lynes run Merinos at 12.5 DSE for winter grazed land, which includes dryland and some irrigated land, producing a profit of about \$500/ha.

In comparison irrigated barley at a 7-tonne yield, at \$250/t has a profit of about \$850/ ha. While dryland barley at a 5t yield, has a profit of about \$450/ha

"We have a pretty diverse system; sheep and crops work well together on our property and in a year like we have just had, the high prices for wool and meat make up for the poor cereal prices," Sam said.

"Making \$500/ha from sheep is good especially if you consider the low risk involved. Sheep also have an economic benefit in weed control and removing crop residues."

IDEAL MERINO COUNTRY

Sam said their Merinos had a more medium-frame, meaning handling was easier.

"Merinos aren't as big, so they are easier to handle, which is better for the shearers," he said.

"There's more long-term sustainability for

everyone. The country we have is ideal Merino country, in a dry year we would have to keep the feed up to another breed whereas Merinos don't have the feed requirements that these other breeds need.

"Then, you also have the wool which is going really well at the moment and lambs are very comparable (in price) at the moment."

In late February, Merino wether lambs, 14 kilograms dressweight, August-drop, sold for \$6.50/kg dw equivalent to \$96 a head.

"It's a very comparable price to crossbred lambs," he said. "Merinos have the potential to do just as well as first-cross lambs."

"I like the flexibility of the Merino. If you have a fertile ewe that is producing plenty of lambs and quality wool, I find it hard to beat." Sam Lyne, woolgrower

Wool prices were locked in for a quarter of the Riccarton clip at 1,530 cents a kilogram clean for June, and rates were also locked in for July 2018 at 1,650c/kg clean. The Lynes have recently locked in more wool at 1,750c for June next year. On average, the Lynes produce 45,000kg of greasy wool a year. Wool is marketed through Roberts Limited and sold in Melbourne.

"Our main aim is to produce lots of wool with good strength," Sam said. "We have 19-micron wool and cut 5.5-6kg per head with an average yield of 72%, but this can vary depending on the year and what the ewes have been run on."

Of the 2,600ha property, 460ha can be irrigated, so dual-purpose crops are grown, and are currently being watered for autumn feed.

Sam says on the two properties they run, there is a mix of red loam soil, open tussocks and improved pastures. The average annual rainfall is 500mm. Lambs are dropped in August, in-line with seasonal feed availability.

Rams have been sourced from a well-known stud in NSW since 2011, partly to shift to poll genetics but also to improve fertility and improve the early maturity of lambs. Since the switch, and also due to changes in management brought about by doing an AWI-funded Lifetime Ewe Management course, lambing percentages have risen from 80% to 100%. The Lynes have scanned for dry, single and multiple pregnancies during the past three years.

Lambs are sold by June, before they cut two teeth. They are weaned and run on stubbles, weighed, then sold on-hooks once they fit into required weight categories, either the 12-18kgdw bracket to Tasmanian Quality Meats, or if more than 18kgdw sold to Victoria.

"It depends on what price and seasonal conditions as to where we sell them," Sam said. "If prices are better we can keep until heavier, regardless though we want to get them off by June to free up feed before ewes lamb in August."



MERINO LIFETIME PRODUCTIVITY PROJECT UPDATE



Jock McLaren, who was recently appointed as AMSEA Chairman.

FAST FACTS

- The AWI-funded Merino Lifetime Productivity (MLP) project is a \$7 million (plus \$4 million from partners), 10-year partnership between AWI, the Australian Merino Sire Evaluation Association (AMSEA), nominating stud Merino breeders and site hosts.
- The project aims to increase the understanding of the genetics and economic interactions over the lifetime of a diverse range of Merino types delivering high quality wool, lambs and meat.
- The MLP project runs at five sites where sire evaluation trials operate for the first two years and then continue tracking performance of ewe progeny as they proceed through four to five joinings and annual shearings.
- A full suite of independent visual classing and productivity traits will be included in the assesment.

The focus of the Merino Lifetime
Productivity (MLP) project is to gather
a lifetime dataset on the F1 daughters of
135 unique and genetically diverse Merino
sires across a range of environments. Each
year these F1 ewes will be wool sampled,
visually scored, fleece weighed, live
weighed, carcase scanned, faecal sampled,
classed by two independent classers and
finally, once mature, will be joined to
Merino sires and repeat measured until
they are over five years old.

This data will be used to better understand how our current selection systems relate to lifetime production, and to fill data gaps so that we can learn more about the lifetime relationships between wool, carcase, disease resistance and fertility.

The MLP project is entering into a new era as the first of the next generation (F2) progeny are tagged and further natural joinings are planned. Meanwhile at some sites, the assessment and generation of the F1 ewes that will be tracked for life remains the focus. The project has also seen some

changes in the leadership team and in this update we meet the newest member of the MLP Executive. For those keen to inspect the project's ewes first hand, and to catch up with the latest in project news, this update features the dates for the 2018 site field days.

WOOLGROWER OVERSIGHT

In view of the growth in the project and the complexities of hosting five sites in diverse environments, woolgrowers play a critical role in project oversight, from involvement and leadership on Site Committees, to representation on the MLP Executive Committee, and finally through the MLP Industry Steering Committee (ISC).

One such woolgrower has been Tom Silcock who until recently was involved in many stages of project oversight as the Balmoral Site Manager and Chairman, AMSEA Chairman (who sits on the MLP Executive Committee), and finally with a seat on the MLP ISC.

After completing a 6-year term as AMSEA Chairman, Tom has recently stepped down from the role and has vacated the Balmoral Chairman's position. Tom's sage advice and passion for the Merino industry has contributed to a solid project foundation. Tom is not lost to the project as he will remain as the Balmoral site manager.

In light of Tom's resignation, the MLP has welcomed third generation woolgrower and stud breeder Jock McLaren of Nerstane Merino Stud as the new AMSEA Chairman and member of the MLP Executive Committee. Jock also sits on the MLP ISC and is a long-term member of the New England Sire Evaluation Association Site Committee.

In his acceptance speech, Jock noted that "Tom has left big shoes to fill", although with his passion for sire evaluation and the Merino industry, we welcome Jock's guidance and insight during his time as AMSEA Chairman.



First MLP drop of Balmoral F2 progeny, grand progeny of 2015 drop MLP sires.

UPDATES FROM AROUND THE SITES

The first of the MLP project F1 ewes at the Balmoral site (Harrow, Vic) were naturally joined in March this year to Merino sires. Achieving a 93% conception rate and tagging 85% of lambs to ewes joined, the project is eagerly awaiting further results to explore reproduction differences. Whilst the first years of results will be interesting, a full five years of lambing will allow for a robust comparison of the genetics of the 25 sires represented within the drop.



2016 drop MerinoLink ewes winter 2017, now set for joining in late December.

The Pingelly (WA) and MerinoLink (Temora, NSW) sites have weaned an impressive number of lambs in their 2017 drop and are now planning for their first natural joinings of the 2016 drop F1 ewes. The MerinoLink site at Temora has identified a late December natural joining to reflect local commercial practices and plan to source Merino rams with a view to use these same rams for subsequent joinings. The ewes were on display at a recent October pre-joining field day and were looking exceptionally good having averaged 65kg at 17months of age.

The **Pingelly** team are emerging from a very dry winter and are in the process of finalising plans for their first natural joining with Merino rams likely to go out with the 2016 drop F1 ewes late in January. The Pingelly site is known for its meat Merino origins and the March field day will be a first chance to hear more about the F1 ewes conception rates and inspect the 2016 and 2017 drops first hand.

UPCOMING MLP SITE FIELD DAYS

SITE	DATE	LOCATION	CONTACT
Balmoral	16 February	Harrow, Vic	Tom Silcock: 0419 882 239
MerinoLink	16 March	Temora, NSW	Sally Martin: 0400 782 477
Pingelly	28 March	Pingelly, WA	Bron Clarke: 0418 957 293

Meanwhile at Macquarie, located just outside of Trangie in NSW, the site has experienced a tough dry start for their first drop of 2017 lambs. With weaning behind them, the foundation ewes are being prepped for their second and final AI program which will see 16 sires including several leading industry impact sires entered at the site. Macquarie sets itself apart from other sites with a ewe base sourced from two distinctly different types of ewes on skin type. Each sire will be allocated an equal portion of ewes from each skin type in the hope of exploring any sire by skin type interactions.

The fantastic lambing conditions at the ultrafine **New England** site have seen the number of F1 lambs tagged exceeding by 27% the anticipated numbers planned for the site. While the number of superfine rams in the project is lower than other types, the abundance of lambs tagged this year will certainly make sure the genetics from this type of sheep have good representation in the project.

TAKING LAST SIRE ENTRIES

With the final Macquarie sires selected to generate the 2018 drop progeny, the focus now turns to New England who will complete the 10th and final AI program in the MLP project. Ram breeders interested in having their sire's genetics evaluated through life at this ultrafine site are encouraged to nominate during December and January. Of the 15 sires that will be entered at the site, eight spots are available for sire nominations, with the remaining spots taken up by four link sires and three industry impact rams.

Industry impact rams have been identified by the MLP ISC as having met a particular criteria developed by the committee. In short they sell a considerable volume of semen to a range of Australian ram breeders, they may have been winners of major industry shows, or have had progeny that have had success at a major industry show. These impact rams often have progeny in high demand having sold for significant sums of money - and finally may include index leaders in the MERINOSELECT system. For a list of sires

entered into the project visit the project website at www.wool.com/MLP.

DON'T MISS THE MLP SITE FIELD DAYS

MLP field days (see top table) provide a chance for the industry to come together to inspect firsthand the progeny from the diverse range of sires entered at the sites and to grab a copy of the latest results. A focus of the field days in 2018 will be the delivery of project results packaged from their raw data origins through to flock breeding values and indexes.

The Balmoral site is set to boast the biggest ever sire evaluation field day. Some 50 pens will contain the progeny from 47 industry sires (several are link sires and are repeated across the two years of joining). Alongside these ewes will be the first lot of next generation progeny from the F1 ewes.

While the other sites may not have as many sire groups to display, they will certainly make up for it with engaging speakers, material to get the most out of the results, the latest in sheep handling and recording technology, plus a chance to network with fellow Merino breeding enthusiasts. With this in mind, don't forget to jot the field day dates down in your diary.

The Merino Lifetime Productivity Project is being undertaken in partnership between the Australian Merino Sire Evaluation Association Incorporated (AMSEA) and Australian Wool Innovation (AWI). AMSEA and AWI would like to acknowledge those entities who also contribute funding, namely woolgrowers through sire evaluation entry fees, site committee in-kind contributions, and sponsors of AMSEA. A special acknowledgement is also made to the Australian Government who support research, development and marketing of Australian wool.

> **MORE INFORMATION** www.wool.com/MLP

PROJECT CONTACT DETAILS

NAME	ROLE	CONTACT	EMAIL
Anne Ramsay	MLP Project Manager	0400 368 448	stenhouseconsulting@bigpond.com
Ben Swain	AMSEA Executive Officer	0427 100 542	ben.swain@bcsagribusiness.com.au
Geoff Lindon	AWI Program Manager Genetics	0427 572 228	geoff.lindon@wool.com

LET'S TALK ABOUT SEX, BAAABY

A research project is under way to investigate whether feeding ewes at joining with a diet high in omega-6 fatty acids (eg grain) versus high in omega-3 fatty acids (eg silage or pasture) is a viable and practical way to influence the sex ratio of lambs in commercial sheep enterprises.

his project follows on from earlier research into gender bias through nutritional means, which concluded that producers requiring high value breeding females may benefit from feeding omega-6 (eg grains) at joining, whereas those requiring males for meat production may benefit from feeding omega-3 (eg silage or pasture).

The original research was led by Dr Edward Clayton of the NSW Department of Primary Industries, Wagga Wagga, along with the Graham Centre, an alliance between NSW DPI and Charles Sturt University (CSU). Dr Clayton is also leading the current project - co-funded by AWI and MLA along with the Holbrook Landcare Network.

"The original research in pen trials that was initiated as part of a PhD conducted by Catherine Gullver from CSU, indicated that, while keeping the same overall energy value of food, ewes fed a diet high in omega-6 pre- and post-joining produce 14% more female lambs than ewes fed a diet high in omega-3," Dr Clayton said.

"Modelling based on those research results indicates that there is potential for considerable economic benefit to producers through minor adjustment to their current management practices.

"The purpose of the current research is to paddock validate the results from the original project by replicating the research at 11 properties in NSW in a range of commercial sheep enterprises, and establish best bet management practices.

"The project also aims to monitor the impact of feeding the diets high in omega-3 or omega-6 may have on lamb marking percentages. It will also examine the financial benefit of a change in sex ratio and produce best bet feeding guidelines, using producer case studies."

RESEARCH **METHODOLOGY**

The project commenced in early 2016 and is scheduled to run over three years, with research conducted at five sites in the first year, three sites in the second year, and three sites in the third year. The 11 properties are a mix of sheep-only producers (including Merinos) and mixed farming businesses.

At the research sites, 500 ewes are randomly divided into two groups, with one of those groups of ewes fed only pasture (and/or pasture supplements such as silage or hay), while the other group is supplementary fed oat grain (and potentially wheat, barley, triticale, rye and lupins) in addition to pasture, for four weeks prior to joining and for the first two weeks of joining.

Ewes are joined in their groups for 5-6 weeks depending on the normal practice on each of the 11 properties.

REBUILDING SHEEP FLOCKS

"If the project proves successful and economically viable, this will be beneficial for producers in the Australian sheep industry, especially for woolgrowers needing to rebuild flock numbers against a background of high replacement ewe prices and cash flow restrictions," said AWI Program Manager, Farm Automation & Reproduction, Carolina Diaz.

"In commercial terminal meat enterprises, the producers would benefit from a bias to male progeny, since replacement females are simply purchased from time to time."

As part of the project, producers partaking in the trial, plus surrounding producers, are being interviewed to identify what influence this feeding practice could have on commercial sheep enterprises.

The survey of producers aims to determine their level of interest in influencing the gender ratio of their flock, how applicable the practice is in their business, the situations where the producers would use this practice, the impacts it would have on their business, any barriers to adoption and potential strategies to overcome those barriers.

"The aim of the project is to not only explore the validity of gender bias by variation in feed, but also to produce costed practical recommendations for commercial enterprises to consider." Ms Diaz added.



WHAT SHELTERBELT EXPENSES ARE

TAX DEDUCTIBLE?

There are plenty of potential productivity and biodiversity benefits for woolgrowers who establish shelterbelts on their property. Did you also know there could also be tax advantages? AWI's friends at the Basalt to Bay Landcare Network in Victoria have liaised with the Australian Taxation Office (ATO) to produce an easy-to-understand fact sheet about the tax incentives. Read the article below, specially prepared by the ATO for Beyond the Bale.





The ATO fact sheet: Establishing shelterbelts on land used in primary production business: Can I claim a tax deduction? What you need to know is available from **www.basalttobay.org.au/publications**

A gricultural land not protected by climate buffers, or shelterbelts, is less productive. A shelterbelt is a line of trees or shrubs planted to protect an area from weather. Shelterbelts can be used to:

- · protect crops and livestock
- · improve biodiversity
- improve animal welfare
- improve production
- reduce impacts of wind, heat, and cold on people, stock, and crops
- buffer farm assets and rural communities from extreme weather events
- increase landscape water retention
- · sequester carbon
- provide alternative income streams
 eg honey/seed/bush foods
- prevent or fight land degradation

 for example, soil erosion or degradation
 of vegetation.

In addition to all the benefits listed above, shelterbelt costs can also be tax deductible.

The Basalt to Bay Landcare Network wants to get more farmers becoming aware of the importance of trees and shrubs to buffer their production from the weather – then take that knowledge and enable it. They are actively seeking partners to help realise that vision, because having industry connected to education increases the likelihood of action. They are encouraging more farmers to plant (preferably native) shelterbelts to help tackle climate change.

Lisette Mill from Basalt to Bay Landcare Network agrees that we have a collective responsibility to focus on making farming enterprises and the communities they support more resilient to the weather, so she asked the ATO to 'work with us to help primary producers to plan ahead to address weather impacts by accessing the tax incentives that already exist'.

The result of this collaboration is an easy-tounderstand fact sheet about tax incentives for anyone connected with primary production, entitled: Establishing shelterbelts on land used in primary production business: Can I claim a tax deduction? What you need to know. Lisette said, "Everyone I show it to thinks it is brilliant and really needed. So many people connected with farming do not know about these deductions and that is a barrier to them accessing them, which we need to change".



Chris Jordan AO, Commissioner of Taxation:
"This targeted support for local communities
is an example of how we're working to ensure
people experience a friendlier, more helpful and
streamlined ATO."

Through initiatives such as this, the Basalt to Bay Landcare Network are well on the way to achieving their goal 'to harness the power of people and their knowledge to protect and improve ecological health in our corner of the world'.

Chris Jordan AO, Commissioner of Taxation said: "This targeted support for local communities is an example of how we're working to ensure people experience a friendlier, more helpful and streamlined ATO. The collaboration with Basalt to Bay Landcare Network is a good example of our

more service oriented approach."

The ATO has comprehensive information on its website about the deductibility of fencing and reticulation expenses relating to shelterbelts.

For example, did you know that replacing fencing around a shelterbelt that is established for any primary production purpose is fully deductible when using new components? In addition, installing reticulation for a shelterbelt that is established for any primary production purpose is fully deductible when using new components. Reticulation includes items such as pipes, fittings, sprinklers, pumps and bores (and installation costs). The ATO's website has more information about reticulation expenses, which are included under "water facilities".

To find out what expenses you can claim, search 'fencing and fodder storage assets' and 'water facilities' on **www.ato.gov.au**.

The 'Establishing shelterbelts on land used in primary production business: Can I claim a tax deduction? What you need to know' fact sheet can be downloaded from the Basalt to Bay Landcare Network website at www.basalttobay.org.au/publications. In the same location is also the ATO fact sheet on forestry. The Basalt to Bay website also has PDF copies of a multitude of Australian relevant fact sheets on the benefits of shelterbelts for a variety of climates and farming types.

More information about the tax deductibility of shelterbelts, fencing and reticulation expenses can be found on the ATO website www.ato.gov.au, search 'shelterbelts'.

Note: AWI is not providing taxation advice. It is recommended that woolgrowers seek independent advice to determine whether the tax deductibility is applicable to their individual circumstances.

В

WILD DOG EXCLUSION FENCING

To help woolgrowers who are considering, planning, building or maintaining wild dog exclusion fencing. AWI has produced a guide that provides an overview and photos of successful exclusion fences already built on other properties.



AWI's new practical guide to wild dog exclusion fencing - available free from AWI.



Kondinin Group's Research Report Exclusion Fencing, Fighting Ferals' is also available to download free from www.wool. com/exclusionfencing

WI has produced a 36-page practical guide to will dog exclusion fencing for woolgrowers that provides an overview of many types of exclusion fences that are being used successfully by Australian woolgrowers to protect their sheep, and also control total grazing pressure.

"Well designed and constructed exclusion fences have been very effective at preventing wild dogs from entering woolgrowers' properties or 'clusters' of properties, resulting in increased on-farm productivity and the ability for woolgrowers to run sheep without the stress of worrying about attacks," said AWI Program Manager Vertebrate Pests, Ian Evans.

"Having the capacity to keep wild dogs out of a property or properties, and get rid of the wild dogs inside the fence, is the key to future long-term freedom from wild dog predation.

"AWI has therefore put together this practical guide for woolgrowers, with the help of woolgrowers who have already built exclusion fences, fencing contractors, extension officers and representatives from fencing supply companies in WA, Qld, Vic and NSW."

The guide aims to:

- · show what a number of woolgrowers have already done to manage their wild dog problem
- give an overview of the most popular designs and materials for exclusion

fencing to help woolgrowers assess the suitability of those designs and materials for their own business

- identify and resolve challenges that woolgrowers may encounter when building and maintaining their own exclusion fencing
- provide access to a variety of useful resources (links to fencing suppliers) that may help woolgrowers when designing and building their own exclusion fencing.

The guide covers various types of exclusion fencing, including prefabricated exclusion fencing, plain wire electric fencing and electric offsets. It also provides advice on protecting weak spots – such as gateways, grids, public roadways, gullies and waterways – which are particularly vulnerable as wild dog access points.

The aim of the guide is not to be an 'instruction manual for how to build an exclusion fence' - the geography, facilities and economic circumstances of woolgrowers suffering wild dog predation vary far too much to adequately cover in a short booklet all aspects of exclusion fence construction. Besides which, many producers are already highly skilled in all aspects of fence construction and/or may use skilled specialist fencing contractors.

To complement the new guide, and to provide more information about wild dog behaviour

INPUT FROM WOOLGROWERS VERY WELCOME

The practical guide will be continually updated and maintained on the AWI website as new information and photos become available.

Have you already erected wild dog exclusion fencing on your property? If so, AWI welcomes feedback on and input to the guide. Please send in photos of your exclusion fencing to AWI. Not only will you be helping your fellow woolgrowers combat wild dogs, but you will receive some woollen socks as thanks from AWI.

Please send your (high resolution) photos via email to wilddogs@wool.com. Include your name, property name, address and phone number in your email. Also include a brief description of what each photo depicts.

Note: By sending image(s) to AWI, you will be giving AWI full ownership of the image(s). This will enable AWI to use and supply the image(s) as it sees fit, including but not restricted to inclusion in updated editions of the fencing guide, AWI's websites and Beyond the Bale. AWI will attribute any published image to the person contributing the image(s), eg Source: Ian Evans, Kuloomba Downs, Deniliquin.

and wild dog exclusion fencing, AWI is also making available the 14-page Kondinin Group Research Report Exclusion Fencing, Fighting Ferals that was produced in January last year.

MORE INFORMATION

Both publications are available for free on the AWI website at www.wool.com/exclusionfencing.

Hard copies are also available by calling the AWI Helpline on 1800 070 099. For further information, contact AWI Program Manager Vertebrate Pests, lan Evans, on 0427 773 005 or ian.evans@wool.com

EXAMPLES OF PHOTOS FROM AWI'S WILD DOG EXCLUSION FENCING GUIDE



Prefabricated wire with a fixed footer (preferred fencing for Queensland cluster fences).



Plain electric wire fence with an electrified ground/bottom wire (often used in hilly terrain, for example eastern Victoria).



Sloping electric offset, being used in conjunction with an existing prefabricated



Fence in a floodway, suspended from a steel cable attached to heavy duty posts dug deep into the ground. Each fence is designed to lift up or fold over in the event of a flood.



This gate has been designed to minimise the gap between the gate and the posts, and the gate and the ground. It has also been built as high as the fence, and a bed log will be installed to prevent wild dogs burrowing underneath.



Electrified tape being used to prevent wild dogs negotiating grids. The tape is electrified using a **solar-powered energiser**. This grid also incorporates a motion-activated light and siren to deter wild dogs.

OUTFOXING THE FOX

Community-based fox control programs that target the weak points in fox lifecycles minimise the impact of fox predation on livestock production and native fauna.

environment more than \$227 million a year. They pose a threat to livestock, especially lambs, and are a primary cause in the decline and extinction of many small and medium-sized native animals in Australia.

They are opportunistic predators and scavengers and have few natural predators in Australia. On an average night, a red fox consumes around 400 grams of food. Over a year, this adds up to 150 kilograms of food. Considering that foxes only consume a small portion of each animal they kill, a single fox can potentially kill thousands of mammals, reptiles, birds and insects each year.

Foxes are also known to spread weeds via their scats, and carry and spread parasites, bacteria and viruses that affect working and pet dogs as well as native wildlife.

Foxes were originally introduced to mainland Australia in the 1850s for recreational hunting and spread rapidly. Today, they are abundant in all states and territories except Tasmania, where they are still at low density.

FOX CONTROL

AWI Program Manager Vertebrate Pests, Ian Evans, said lamb predation by foxes averages 2-3% per year, but can reach 30% where fox numbers are high.

"Producers can increase lamb survival by taking part in coordinated, community-based fox control programs that target weak points in fox lifecycles – during breeding in late winter/spring, and when pups disperse in late summer/autumn," Ian said.

"Baiting is considered to be the most effective method currently available, but there are also other fox control methods include shooting, trapping, den fumigation, den destruction and exclusion fencing."

Ian said fox control benefits from AWI's current commitment to wild dog control.

"AWI investments in baiting, wild dog management planning, aerial baiting rate research and on-ground grants for coordinated wild dog control also help fox control." 1080 has been the main toxin used in the baiting of foxes (and wild dogs), but an additional baiting option for reducing numbers of foxes (and wild dogs), Para-aminopropiophenone (PAPP), was made available last year to woolgrowers and other landholders across Australia.

PAPP was developed with funding support from AWI and is designed to allow baiting to still be an option in places where 1080 use is restricted, or for land managers who would prefer not to use 1080. The new chemical (toxin) is manufactured and sold in baits by Animal Control Technologies Australia Pty Ltd (ACTA) under the product names FOXECUTE® for fox control and DOGABAIT® for wild dog control.

LAMBING PERCENTAGES

Retired woolgrower Derek Williams of Ravensthorpe in Western Australia cautions producers to be vigilant about fox predation, as well as wild dog predation, on sheep flocks.

"Most stock farmers worry about predation mainly when it affects mature sheep. After fox attacks, lamb carcasses can sometimes be not evident, so predation Sheep make up the biggest part of foxes' diet. *PH0T0:* pjmalsbury.

only becomes apparent when the farmer notices a difference in numbers between pregnancy-tested ewes' lambs in uterus and the number of lambs marked. Often there is puzzlement but little action by farmers.

"We rarely see foxes, because they are a night time predator. We never see them during the day, and rarely at night as they are aware we drive vehicles and their colour is a very good camouflage. We are their only predator."

Derek said he managed to cost-effectively increase lamb marking percentages by strategic baiting for foxes.

"The last few years I was farming, I put out fox baits around my lambing ewes. I put them in the fence line, 100 metres apart, beneath a piece of carcass hanging from the top of the fence.

"The results were an up to 30% increase in lambing percentages."

MORE INFORMATION

Refer to **www.pestsmart.org.au** or your state DPI for further information about fox and wild dog control.

SCIENTISTS PROVE FOXES LARGELY DIET ON SHEEP

Research results published this year show that sheep make up the biggest part of foxes' diet.

Scientists from Murdoch University analysed the gut contents and jaw strength of 540 foxes shot in 13 different locations in the WA Wheatbelt through a community-based feral animal control program funded by Wheatbelt NRM.

Murdoch University's Associate Professor Trish Fleming published the findings in May this year in the Journal of Zoology. "We've found that juvenile foxes eat as much sheep as an adult fox, with sheep making up to two thirds of their stomach contents," she said. "We also found foxes feast on brush tail possums, reptiles, frogs, birds and invertebrates."

Associate Professor Fleming said by studying skull morphology, bite force and teeth, they found 57% of the foxes culled were less than one year old.

"This is probably because they were young, naive and on the move away from their home, so more likely to be shot," she said. "The female foxes tended to feed on rodents and invertebrates. This may suggest they stay closer to sheds and houses.

"This information reinforces the need for coordinated pest animal control to boost the productivity of livestock farmers and protect native animals."

KNOCKDOWN IN RABITS NUMBERS CONFIRMED

There has been a 42% observed reduction in rabbit numbers following the release of the new strain of rabbit calicivirus in March this year, based on data from almost 200 release sites across Australia.



A rabbit eating **oats laced with the RHDV1 K5 strain** of rabbit calicivirus. *PHOTO:* Centre for Invasive Species Solutions.

Rabbits are Australia's most costly environmental and agricultural vertebrate pest, causing an estimated production loss to the wool industry of \$45 million per year and to the sheep-meat industry of \$33 million per year (McLeod 2016).

These costs would be much greater without myxomatosis and rabbit haemorrhagic disease (RHD) being introduced into Australia. It has been estimated that biological control agents have resulted in a rabbit population at about 15% of its potential size in Australia (Cooke et al. 2013).

A strain of rabbit calicivirus (RHDV1 K5) new to Australia was released during the first week of March at 382 locations across the country, as part of the RHD Boost project funded through the Invasive Animals CRC with additional funding from AWI.

After receiving pre- and post-count data from 191 participating release sites, the RHD Boost team has reported a 42% decrease in wild rabbit numbers has been observed since the release of RHDV1 K5 across the country.

Through laboratory analysis, RHDV1 K5

rabbit deaths have been confirmed in every state and territory, except NT.

"This new strain of RHDV is boosting current biocontrol activity that is already impacting pest rabbit populations to help woolgrowers increase their productivity," said AWI Program Manager Vertebrate Pests, Ian Evans.

"However, rabbit biocontrol can be most beneficial if applied as part of an integrated and complementary pest management approach. After a rabbit population knockdown, warren destruction by ripping or other means should be considered, followed by mopping up activities such as shooting and trapping."

AWI funded a series of 10 short rabbit control videos to help ensure an effective rollout of RHDV1 K5 and provide information on conventional control methods such as warren fumigation and ripping. The videos are available at www.wool.com/rabbits.

REPORTING DEAD RABBITS

Now is the time to discover if RHDV1 K5 has moved and managed to persist in the environment.

Infected rabbits spread RHDV1 K5 to other rabbits by direct contact or indirectly through faeces and 'vectors' such as insects, specifically bushflies and blowflies.



RabbitScan – available free at www.rabbitscan.
org.au – provides the ability to track the spread
of rabbit biocontrol agents and viruses from
a smart phone or computer, via a digital map.

With young rabbits appearing in Spring following winter breeding, and with more flies around as the weather warms up, RHDV should be on the move.

Whether you're from a release site or not, if you find some dead rabbits don't forget to record these in the popular RabbitScan app and submit a sample for testing. Farmers, land managers and the community can play an important role in recording evidence of rabbit disease which can be used to guide local rabbit management activities.

When you use RabbitScan to also submit a tissue sample, the research team will send a free, postage-paid sampling kit with full instructions on how to collect and send the sample.

Once the tissue sample is analysed, an update on the digital map will record the results, and the person who submitted the sample will be notified with accurate information of what virus is affecting rabbits in their area or control site, which is valuable information for their local rabbit management plan.

OBTAINING RHDV1 K5

The RHDV1 Czech v351 strain has been available to authorised users as a biological control agent since 1996. The RHDV1 K5 strain is now available for purchase.

However the legislation surrounding the use of RHDV varies across the Australian states and territories. If RHDV is permitted to be supplied to you, you can order both RHDV strains in freeze-dried form from the NSW Department of Primary Industries Virology Laboratory. Refer to www.pestsmart.org.au/purchasing-rhdv1-k5 for further information.

Before using RHDV, also check that the rabbit population is susceptible. Refer to **www.pestsmart.org.au/purchasing-rhdv1-k5** and **www.rabbitscan.org.au** for further information.

MORE INFORMATION www.pestsmart.org.au

WORM EGG COUNTS:

INDIVIDUAL **VERSUS BULK SAMPLES**

The use of Worm Egg Counts (WEC) are the gold standard to decide whether sheep require a tactical drench. They are also used to test drench efficacy and assess a sheep's resistance to worms. But which sampling method - bulk or individual - is the most appropriate?

hen it comes to tactical drench decisions, both bulk and individual sampling is better than not testing, but each method suits specific situations.

Worm tests for monitoring the worm status of a mob are best done with bulks, whereas DrenchTests, DrenchChecks and WEC ASBV samples should be done individually.

Where strategic drenches are given, such as a weaning, pre-lambing or first summer drench, no prior worm egg count is required.

ABOUT WORM EGG COUNTS

Worm egg counts are also called WEC, WormTests or faecal egg counts. They identify the number of worm eggs in faeces, on an eggs per gram (epg) basis, which is a good indication of the worm burden of sheep.

Some laboratories can also perform a larval culture (also called a larval differentiation) to identify the types of worms present and their proportion. This is useful in some regions to decide the ideal drench to use based on the proportion of each worm species present.

HOW DO INDIVIDUAL AND BULK SAMPLES DIFFER?

When collecting dung samples from a mob, they can be collected individually or bulked together.

Individual samples can be taken directly from the rectum of each sheep and placed into an individual container or bag. This method allows the sample to be associated with an individually identified sheep. About 10 adult sized dung pellets (or the equivalent amount if it is runnier) should be collected from each individual.

Individual samples can also be collected from the ground in the paddock, but they



ParaBoss Operations Manager Deb Maxwell collecting a bulk sample.

must be fresh. When a mob is held for a few minutes and then allowed to slowly walk away there should be numerous individual piles of dung left. About 10 dung pellets from any one pile are put into their own container or bag and are not mixed with dung from other piles.

Bulk sampling of a mob is also done in the paddock. A smaller amount is collected from each pile - three pellets - but they are placed into one larger container or bag along with the samples from other dung piles.

To give a better estimate of the true average worm egg count of a mob, at least 20 piles should be sampled; increase this to 40 piles for mobs of more than 400 sheep or in barber's pole worm areas.

When only 10 individuals are sampled, the average result is less accurate, increasing the chance that an incorrect drenching decision will be made than if a larger number of animals were sampled.

WHEN SHOULD INDIVIDUAL SAMPLING **BE USED?**

The individual method must be used for DrenchTests, post-treatment Drench Checks and for determining Australian Sheep Breeding Values (ASBVs).

For *DrenchTests*, the individual sheep need to be identified to a drench group. For a post-drenching DrenchCheck, the samples must be individually collected, but the sheep identity is not important. In both of these situations, it is important to be able to see the variation between individuals and whether any sheep may have been mis-drenched, which shows as a much higher worm egg count than the others in the group.

Conversely, to calculate WEC ASBV for individual sheep, each sample must be linked to an individually identified animal.



ParaBoss Executive Officer Lewis Kahn collecting a faecal sample from a sheep.

WHEN SHOULD A BULK COLLECTION METHOD BE USED?

When determining whether a tactical drench is required, a bulk collection will generally give a better estimate of the true mob average WEC when enough (20–40) animals from the mob are sampled. It will not display the variation in WEC among animals, but this is rarely an issue for monitor tests.

TESTING

When individual samples arrive at your chosen laboratory, they may test each sample separately, or for a monitor test, they may mix some of the individuals together, for example, ten individual samples may be made into two bulk lots of five, with a worm egg count on each bulk.

When they receive a bulk sample they will thoroughly mix it and take a number

WHAT ARE TACTICAL AND STRATEGIC DRENCHES?

Tactical or therapeutic drench:

a drench given when sheep are suffering from the effects of worms.

Strategic drench: a drench given at a critical time to reduce worm larval contamination of a pasture for the benefit of the whole mob or flock rather than just for the treated animals, and/or a drench given, irrespective of worm egg count, at times when they are expected to be most susceptible to worm infection.

of subsamples; again, the number done will depend on the particular laboratory.

Do not put pellets from a number of individual sheep into any one of the small sample bottles in a kit hoping that this constitutes a bulk sample. The laboratory will assume each bottle is from an individual sheep and will not mix the contents; they will take about two grams (the first few pellets) from the top.

SUMMARY

The more animals sampled for a mob test, the closer the result will be to the true average of the mob; this is the best option for monitor *WormTests*. Stick to individual samples for *DrenchTests*, *DrenchChecks* and WEC ASBV

MORE INFORMATION www.wormboss.com.au



PARABOSS: BEST PRACTICE ADVICE FOR MANAGING SHEEP PARASITES

ParaBoss is a suite of three products

- LiceBoss, WormBoss and FlyBoss

- developed to help sheep producers
in the management of lice, worms
and blowflies.

The LiceBoss, WormBoss and FlyBoss websites are sources of detailed management information and regional programs that will assist in managing the major parasite risks for sheep. The websites have been developed by expert panels of parasitologists and veterinarians from across Australia.

ParaBoss provides access to the three websites at www.paraboss.com.au.

Subscribe to ParaBoss News, the twice monthly free email newsletter with state outlooks on the current state of sheep parasites as well as feature articles and the quick quiz to test your knowledge of sheep parasites. You can subscribe on the ParaBoss website.

Join us on **Facebook** at www.facebook. com/paraboss.com.au to see weekly posts on flystrike, lice and worm control

MORE INFORMATION

www.paraboss.com.au



Sheep-handling just got easier!

New 2017 Model

DrenchMaster



CrutchMaster



1-800-750-584

Anti-Backer





Effective, efficient and safe solutions for all your drenching, crutching and handling needs.

AWI BREECH FLYSTRIKE STRATEGY 2017/18 - 2021/22

AWI's Breech Flystrike Strategy has recently been reviewed and updated to ensure AWI continues to meet future industry and stakeholder expectations in its investment in research, development and extension (RD&E) in this priority area. This diagram summarises the five key pillars of AWI investment for the breech flystrike program.

THE FIVE KEY PILLARS OF AWI INVESTMENT

The Breech Flystrike Strategy provides direction for AWI investment in sound, scientific solutions for the management of breech flystrike to improve lifetime animal welfare, address supply chain expectations and increase the demand for Australian wool.

BREEDING AND SELECTION

THE AIM: Long term sustainable solutions to reduce the risk of breech flystrike.

- Understand the performance and economic consequences of breeding for reduced breech flystrike.
- Investigate the, as yet unknown, factors that cause breech flystrike.
- Improve the accuracy and robustness of breech flystrike traits along with other welfare traits such as worm resistance and survival.
- Better understand how to reduce the incidence of dags and urine stain through breeding.

IMPROVED MANAGEMENT PRACTICES

THE AIM: Improved management practices to advance lifetime welfare.

.....

- Invest in getting new parasite control treatments and vaccines to market.
- Ensure access to information on parasite management and use of existing chemical treatments.
 - Investigate longer acting, cost effective pain relief options for painful husbandry practices.
 - Support for further National Mulesing Accreditation Program (NMAP) training.

BREEDING AND SELECTION THE STRATEGY PILLARS FOR 2017/18 - 2021/22 TRAINING AND ENGAGEMENT

SUPPLY CHAIN ENGAGEMENT

THE STRATEGY WOOL INDUSTRY TRAINING AND ENGAGEMENT

SUPPLY CHAIN ENGAGEMENT

WOOL INDUSTRY TRAINING AND ENGAGEMENT

THE AIM: Adoption of best practice strategies to improve the lifetime welfare of sheep and reduce reliance on mulesing.

- Develop and implement education, training and extension strategies to improve lifetime welfare of sheep and reduce reliance on mulesing.
- Monitor, evaluate and improve the success of education, training and extension strategies.
 - Engage with woolgrower advisors on the RD&E program.

BREECH MODIFICATION ALTERNATIVES

THE AIM: Breech modification alternatives to reduce the reliance on mulesing.

 Undertake further R&D to refine the application protocols for breech modification alternatives to support their commercial viability.

SUPPLY CHAIN ENGAGEMENT

THE AIM: International and domestic stakeholders support the Australian wool industry.

- Regularly engage with domestic and international stakeholders to ensure they understand best practice management of breech flystrike and associated welfare implications.
- Minimise the risk of regulatory measures that may restrict the ability of woolgrowers to select the most appropriate practices for their farming system.
 - Consult with Australian wool and sheep industry organisations.

BREECH FLYSTRIKE PREVENTION PUBLICATIONS

AWI makes available publications about breech flystrike prevention on its website at www.wool.com/flystrikelatest. Here is a selection of the available publications:



AWI BREECH STRIKE RD&E PROGRAM - IMPROVING LIFETIME WELFARE

(November 2017)

Presentation slides that outline the outcomes of AWI's Breech Strike RD&E Program since 2005. There are five key areas of work: (1) Breeding and Selection, (2) Breech Modification, (3) Improved Management, (4) Domestic Extension and (5) International Supply Chain Communication.



AWI'S BREECH FLYSTRIKE R&D TECHNICAL UPDATE PRESENTATION

(July 2016)

Presentation slides from AWI's Breech Flystrike R&D Technical Update events held in 2016, 2014, 2012 and 2010.



CSIRO ARMIDALE BREECH STRIKE **GENETICS NEWSLETTER ISSUE 7**

(November 2016)

An 8-page newsletter from CSIRO Armidale that undertook the Breech Strike Genetics project from 2005 with funding from AWI.



DAFWA BREECH STRIKE RESISTANCE **PROJECT NEWSLETTER ISSUE 7**

(July 2017)

A 12-page newsletter from the Department of Agriculture and Food Western Australia (DAFWA) that undertook the Breech Strike Genetics project from 2006 with funding from AWI.



TAIL LENGTH IN UNMULESED AUSTRALIAN MERINO SHEEP

(December 2012)

A report that addresses the impact of tail length on susceptibility to breech flystrike of unmulesed Australian Merino sheep.



PAIN RELIEF: FREQUENTLY **ASKED QUESTIONS**

(March 2017)

BREEDING LOWER WRINKLE AND DAG

(June 2017)

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

MORE INFORMATION

These publications are available at www.wool.com/flystrikelatest



MANAGING BREECH **FLYSTRIKE** MANUAL **UPDATED**

AWI's 'Managing Breech Flystrike' manual, which was released in 2011. was updated in June and is available in hard copy and online.

t is designed to help woolgrowers further reduce their flock's flystrike risk and develop more effective flystrike control plans. The manual signposts to further information, primarily FlyBoss.

There are a wide range of management and breeding options currently in use. Different combinations of the available tools will suit producers in different enterprises and regions with varying risk of flystrike incidence.

The preferred combination of tools and strategies needs to fit individual woolgrower's sheep enterprise requirements and other farm operations. It is important that producers continually review their plan to ensure that it is most effective and fits in well with the future markets and seasonal variability.

The 44-page manual includes coverage of management options, such as the strategic use of chemicals, shearing and crutching; breech modification; scouring and worm control; breeding for breech strike resistance and moving to a non-mules enterprise.

MORE INFORMATION

The Managing Breech Flystrike manual is available at www.wool.com/flystrikelatest or request a free hard copy version from the AWI Helpline on 1800 070 099

BLOWFLY GENE RESEARCH

FOR FLYSTRIKE CONTROL





University of Melbourne researchers Dr Trent Perry and Dr Clare Anstead.

Research into the genetic variation within the Australian sheep blowfly Lucilia cuprina has made further progress - which might ultimately provide a crucial foundation for the development of new drugs and vaccine for effective and sustainable flystrike control.

n 2015, breakthrough research undertaken by the University of Melbourne and co-funded by AWI, identified all 14,554 genes that make up the sheep blowfly, and discovered 2,062 genes not seen before in any other organism.

In a new development, University of Melbourne researchers have recently narrowed down the number of identified 'orphan' (unique) blowfly genes from the original 2,062 to 772, mainly due to the increased availability of other insect genome sequences.

Dr Clare Anstead said some of these orphan genes hold the key to the parasitic relationship between the blowfly and the sheep, and could be targeted to develop a completely new method of flystrike control.

"A potential outcome from future work is the development of a vaccine that targets a gene which could stop flystrike in its earliest stages by accessing vital proteins in the maggots, killing them. Alternatively, genomic-guided drug discovery could result in the development of insecticides that selectively kill fly maggots but do not harm the host animal."

AWI Program Manager of Sheep Health & Welfare, Bridget Peachey, said the aim of this avenue of research is ultimately

to produce new insecticides and vaccines for woolgrowers to complement current flystrike prevention measures.

"The dependence on current chemical treatments remains critical in high rainfall and high dag wool-growing regions, while in low rainfall and dag incidence regions, the use of chemicals is more tactical and used in years of high strike risk only," she said.

"A key challenge for all is that, although cyromazine and dicyclanil remain effective, there are continuing signs of increasing resistance to these chemicals, so new sustainable options would be very welcome."

Researcher Dr Trent Perry added: "The identification of sheep blowfly genes also enables the prediction of gene mutation in flies that could make them resistant to chemicals," which would help with drug resistance challenges.

Also as part of this AWI-funded project, DNA sequence analysis will measure the extent to which blowflies vary, and migrate, around Australia (see box right) and search for the natural occurrence of an endosymbiotic bacteria, Wolbachia, that may contribute to sustainable blowfly control.

YOUR CHANCE TO GET INVOIVED!

As part of the AWI-funded project, University of Melbourne researchers are seeking woolgrowers from across Australia who are willing to trap and collect 30 adult blowflies on their property for use in their research.

The effectiveness of any potential flystrike vaccine could be compromised by genetic variation in the Australian sheep blowfly Lucilia cuprina. Specifically, in blowfly populations in different environments across the country, the genes encoding the target proteins need to have minimal genetic variation from the 'optimal version' of the target protein, otherwise they may be less susceptible to a vaccine.

Researchers are therefore seeking expressions of interest from woolgrowers across Australia – in both badly affected flystrike areas and less affected areas willing to collect 30 adult blowflies from their property and send them through to the researchers. For those that do not usually apply trapping as a control method the researchers can provide traps for the work (which is a simple process).

The researchers will then extract DNA from the individual blowflies and perform whole genome re-sequencing on the pooled DNA. This will produce a detailed snapshot of the level of genetic variability that exists across the genome in contemporary blowfly populations across Australia.

Due to the researchers needing to receive samples from a broad range of diverse regions across Australia, the researchers ask that woolgrowers express their interest in participating to the researchers **prior** to blowfly collection. It is anticipated that the trapping/collection would need to take place across the current flystrike season but only one or two different collections from a woolgrower's property would be required.

Researchers are looking for blowflies from about 20-30 sites across Australia. If you are selected by the researchers to take part, the researchers will liaise with you regarding the best ways and requirements to trap/capture the 30 blowflies, and the couriering arrangements for the dispatch of the blowflies to the researchers at the University of Melbourne.

I'M INTERESTED. WHO DO I CONTACT?

Please email Dr Trent Perry at the University of Melbourne on trentp@unimelb.edu.au if you are interested in collecting 30 blowflies from your property to be used in the research project.

ANIMAL WELFARE AND THE NATIONAL WOOL DECLARATION



Meeting with US online clothing retailer Everlane: Everlane Product Quality
Assurance Lead, **Mauricia Tomasowa**; Everlane Sourcing & Production Apparel
Lead, **Caitlin Grenon**; AWI Key Account Manager Americas, **Sarah Schlenger**;
Everlane Head of Sourcing & Production, **Kimberly Smith**; AWI's **Peta Slack-Smith**;
Australian woolgrower, **Julian von Bibra**... and **'River'** the Australian shepherd dog.

AWI helps ensure the global wool supply chain is kept well informed about the high standard of Australian woolgrowers' animal welfare practices, but brands have stated they would like to see more woolgrowers declare their wool through the **National Wool Declaration (NWD).**

As Corporate Social Responsibility (CSR) emerges as a key focus for businesses across the world, the animal health and welfare credentials of wool are under closer scrutiny than ever by buyers and retailers of Australian wool.

The vast majority of Australian wool is exported and consumed in northern hemisphere markets, far removed from the farms on which the fibre is grown. Given this distance, it can be easy for the retailers/consumers to not be aware of the realities of farm practices in Australia, while equally easy for woolgrowers to not be aware of the needs of the mainly urban and often culturally diverse consumers.

AWI therefore works hard to ensure the global wool supply chain is well informed about the high standard of on-farm animal welfare practices and the progress of R&D into flystrike prevention.

Most of this work by AWI happens with customers overseas so it isn't as clearly visible to woolgrowers in Australia, but it goes to the heart of what end consumers are seeking from growers, especially in regard to the animal health and welfare practices on-farm.

AWI LIAISON WITH THE GLOBAL SUPPLY CHAIN

Each year AWI leads a delegation (including a woolgrower and a researcher) to the northern hemisphere, where it meets with key brands, retailers, retail associations, welfare groups and NGOs.

AWI's General Manager of Corporate Affairs & International Market Access, Peta Slack-Smith, who has led these delegations since 2009, said there has been significant and positive change in the nature of the discussions with these groups over the past eight years, as their understanding of the welfare issues has developed.

"By providing scientific evidence and

forming productive relationships with companies, AWI has countered PETA (People for the Ethical Treatment of Animals) claims and helped countless companies understand that flystrike is a serious health and welfare risk, and in fact mulesing – while not pleasant – is an effective lifetime health and welfare tool for many woolgrowers," Ms Slack-Smith said.

"Through these meetings over the years, brands have become aware of the practicalities of optimising the production of fine apparel wool, while maintaining the animal health and welfare of their sheep.

"The retailers and brands across the world that buy Australian wool are clearly urging woolgrowers to complete the National Wool Declaration."

Peta Slack Smith

AWI General Manager of Corporate Affairs & International Market Access.

"The majority of brands AWI deals with now understand woolgrowers care for their animals and there are no 'easy' solutions to flystrike, and there definitely is not one simple answer for all sheep, on all farms. Rather animal welfare and best practice is dynamic and situational, reflecting the diversity of production systems, sheep type, management priorities and resources available."

AWI also outlines to brands the position of leading animal welfare organisations with which AWI works closely, such as RSPCA Australia, the Australian Veterinary Association, and the head of animal welfare in the European Commission.

In addition to the annual delegation, throughout the year AWI supports brands seeking information and support, helping them understand the issues and source Australian wool that meets their various requirements.

IMPORTANCE OF THE NATIONAL WOOL DECLARATION

In 2008 it was common to read about brands not wanting to source mulesed wool from Australia. That's no longer the case but they want to see change.

"The important message on this front for woolgrowers is that more brands are prefering to source both non-mulesed AND pain relief declared wool, although only some will only source non-mulesed wool," Ms Slack-Smith said.

To put things into perspective, the annual turnover of some of these companies, individually, is greater than the entire value of the national woolclip (which had an export value of \$3.6 billion in 2016/17).

"Without exception in every meeting held during the recent welfare delegation, every company asked AWI to encourage Australian woolgrowers to declare their wool through the National Wool Declaration (NWD)," Ms Slack-Smith emphasised.

"The 2016/17 AWEX annual figures for the NWD show that 61% of all wool sold is declared through the NWD. This figure needs to increase.

"To ensure Australia meets the expectations of our customers, declaring your wool – regardless of what you are declaring (M, NM, CM, PR) – is one of the single most important business decisions you will make this year to ensure the country satisfies our customers' requirements."

MORE INFORMATION

Listen to the latest edition of AWI's The Yarn podcast (available at www.wool.com/podcast) where you can hear directly from these companies about traceability, transparency and the need for woolgrowers to declare their wool through the NWD.

PAIN RELIEF UPDATE: BUCCALGESIC® FORMALLY APPROVED FOR MULESING

The pain relief product Buccalgesic® has now been approved by the Australian Pesticides and Veterinary Medicines Authority (APVMA) for mulesing, as well as for castration and tail docking in lambs.

The Meloxicam product Buccalgesic®, from Troy Laboratories, was initially released in August 2016 for the alleviation of pain associated with the routine husbandry procedures of castration and tail docking in lambs. Last month, the

APVMA also approved Buccalgesic® for mulesing, and in addition removed the 30 minute wait between application and procedure so it can now be used immediately before the procedure.

Buccalgesic® exerts anti-inflammatory, analgesic and antipyretic effects. Developed in collaboration with AWI and MLA, the product is a prescription only (S4) drug but is delivered without a needle, thereby reducing potential OH&S issues for operators and eliminating any potential skin and muscle damage to the sheep.

It is a viscous gel administered between the inside of the cheek and molar teeth of sheep from where it is absorbed into the blood stream. The buccal (inside of cheek) formulation has a thick consistency so after application (using a modified drench gun) it adheres to the mucous membrane of the mouth. It is also stained to ensure that double dosing does not occur. Its meat withholding period and ESI are 10 days.

The three pain relief products that conform to the National Wool Declaration definition of pain relief ("All sheep in mob have been mulesed with a registered pain relief product") are:



Buccalgesic® being applied to the internal cheek of a lamb during trials. **Buccalgesic®** has now been formally approved for **mulesing**, as well as castration and tail docking in lambs.

- Buccalgesic®, pre-operative analgesic NSAID (nonsteroidal anti-inflammatory drug), buccal application – registered for castration, tail docking and mulesing.
- Metacam®, pre-operative analgesic
 NSAID, sub cutaneous injection –
 registered for pain and inflammation.
- Tri-Solfen®, post-operative topical anaesthetic – registered for castration, tail docking and mulesing.

LEFT-FIELD THINKING IS RIGHT FOR TECHNICAL INNOVATION

A university-led program run during the past few months in collaboration with AWI has generated some very **innovative and practical concepts for technology-based products** that address key wool production challenges.

The 2017 Australian eChallenge Wool
Innovation program was a collaboration
between AWI, the University of Adelaide's
Entrepreneurship, Commercialisation &
Innovation Centre (ECIC), Charles Sturt
University Wagga Wagga (CSU) and Deakin
University School of Engineering.

The ECIC-led program is designed to equip entrepreneurial teams of people from diverse backgrounds, skill disciplines and locations, with the support to develop prototypes of technical innovations for the wool industry.

Fourteen teams from NSW, Victoria and South Australia developed innovative concepts in the areas of connectivity, sheep health, data analysis and communication, precision farming practices and automated processes.

Announced last month, 'Wool Stunners' was the winning team from Deakin University School of Engineering. Their concept of an easy to use, do-it-yourself faecal egg count test could give woolgrowers results in less than an hour, saving valuable time in managing parasite control and enabling precision drenching to minimise drench resistance, improve sheep health and

ultimate fleece quality.

The runner-up team, 'Kelpie', representing CSU, presented an intelligent data analysis system that gives farmers easy access to customised information on demand via their smartphone or tablet to help informed decision making in real-time.

Third place was awarded to the 'WoolVolks' team from Deakin University School of Engineering, who presented a portable, digital imaging system concept that will enable woolgrowers to affordably automate the classing of wool quality, improve assessment accuracy and fleece management, with potential to reduce labour and testing costs.

The 2017 Australian eChallenge Wool Innovation program complemented the 2017 Tech eChallenge Wool Innovation program, also led by The University of Adelaide's ECIC and supported by AWI, which ran earlier in the year.

"AWI is delighted to have been part of this innovative approach to attracting the best young minds in the tech world towards thinking about wool," AWI CEO Stuart McCullough said. "The variety and quality

of innovative digital ideas to improve the productivity and profitability for Australian woolgrowers has been great to see."

AWI will be exploring each team's concepts, to consider which may be suitable for further support to progress down a commercialisation and/or prioritised further R&D pathway.

AWI will seek opportunities to meet with woolgrower groups so teams can get feedback to refine their concepts and explore the potential to recruit field trial pilot partners.

The winning team of the 2017 Australian eChallenge Wool Innovation program was 'Wool Stunners' from the Deakin University School of Engineering, who presented a concept for a fast DIY on-farm worm testing kit.



MAXIMISE REPRODUCTION EFFICIENCY WITH LTEM

Interest in Lifetime Ewe Management (LTEM) remains high, with AWI continuing to fund the popular LTEM course to help woolgrowers manage the nutrition of their breeding ewes and maximise reproduction efficiency. Recent developments include a new online hub, new website and the launch of the new android App.

anaged by Rural Industries Skill Training (RIST) and funded by AWI, LTEM is a best management course for woolgrowers. It assists in the proactive nutritional management of ewes throughout the reproduction cycle to maximise productivity.

A LTEM course is comprised of groups of five to seven producers that meet six times per year with a trained facilitator. During these handson sessions, the group visits each participating farm and learns the skills of condition scoring, pasture assessment and best practice ewe and lamb management to increase reproduction efficiency and wool production, mainly through reducing ewe and lamb mortality.

More than 3,500 woolgrowers have already taken part in the course and on average lift weaning rates by 7-8% and drop ewe mortality by up to 15% as a result.

Peter and Lisa McCrabb run an 8,000 head self-replacing Merino ewe operation located in the 300mm annual rainfall region of Booroorban, south west of Hay in NSW. They undertook LTEM with trainer Geoff Duddy in 2016 and believe it is responsible for the single biggest gain in reproductive performance in their enterprise, with increased conception rates and weaning percentages being realised.

"Pre-LTEM, we were typically weaning about 100% lambs per ewes joined but by following LTEM principles we have since achieved rates of 114% and 127% lambs weaned per ewes joined," Peter said. "This has made a big difference in our enterprise."

AWI last year committed to subsidising 1,500 more LTEM graduates by June 2019, with more than 900 producers utilising this opportunity to date. LTEM groups are springing up across the country.

The LTEM program was developed using the research outcomes of the AWI-funded Lifetime Wool project, which ran from 2001 to 2008, and involved woolgrowers and researchers in WA, Vic, NSW, and SA. LTEM is a great example of where AWI investment in initial research, its further development and an effective extension model has paid off handsomely for the woolgrowers AWI works for, and it will continue to generate benefits for many years to come.

MORE INFORMATION

To find a trainer and a group near you, head to the new LTEM page on the RIST website at www.rist.edu.au/lifetime-ewe-management. The LTEM Team at RIST can be contacted on (03) 5573 0943 or at kkennedy@rist.edu.au.

NEW LTEM APP FOR ANDROID SMARTPHONES

Following the release in March of an updated version of the free LTEM app for Apple smartphones, the version for Android smartphones is also now available free from the Google Play Store. The app is a digital extension of the LTEM course.

The LTEM smartphone app incorporates all the key estimations and calculations of feed on offer (FOO), condition scoring, feed budgeting and supplementary feeding calculations.

It uses cloud technology to store and aggregate paddock, mob and supplement data for multiple users for the same account. Once an account is created, all data can be managed at a personalised central hub at the new website www.ltem.com.au.

This app was largely created in-house at AWI with assistance from RIST together with many who helped roadtest the app in paddocks and sheepyards across the country.



Members of the Lifetime Ewe Management (LTEM) group at Frankland in the Great Southern Region of Western Australia developing their condition scoring skills, with some members using the LTEM smartphone app developed by AWI.

The development of the LTEM app means users can carry with them millions of dollars of research and extension in their pocket and make day-to-day decisions to optimise flock management. This is an example of how AWI is creating innovative, practical and low-cost solutions to help woolgrowers improve the profitability of their businesses.

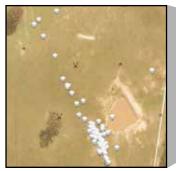
The LTEM app is not a substitute but an addition to the LTEM course offered by RIST and funded through AWI.

MORE INFORMATION

The LTEM app is free and is available at the iTunes Store and the Google Play Store.

ENABLE SMART FARMING DECISIONS

Smart tags being developed by AWI aim to enable woolgrowers to track, monitor and assess the status of their stock in real time - and make better informed decisions to contribute to their enterprise's profitability.



A screenshot of the viewing screen showing the location of the sheep

- the inset picture (left) is a zoom-in of the individual sheep's locations.



he system being developed by AWI involves using smart tags on individual sheep in a flock to remotely monitor the sheep in real time via a computer, tablet or mobile device.

The smart tags would be either an 'ear tag' (pictured below left) that would last for several years on the sheep, or 'collar tag' (pictured above right) that would be used temporarily on lambs while they are mothering up. The ear tags would be put on the sheep when they are mustered in the yard, for example at lamb marking or shearing.

The tags could be used for several purposes, such as monitoring the location and movement of individual sheep and mobs in





Bottom: Base stations are used to collect and communicate tag data. They are robust, long lasting and waterproof. AWI has developed software that will translate the collected tag data into concise usable information, enabling woolgrowers to make data informed decisions. Each base station is solar powered with small solar panels (with a self-sustaining battery).

Top: A wireless network is used to transmit the data - pictured is a tower/pole with a solar powered antenna.



A close up of the **collar tag,** to be used on lambs while they are mothering up. They are battery powered and reusable.

the flock, and the distribution of the sheep within the paddock. This would be useful information if you want to know for example where and when the sheep prefer to graze, drink and shelter, or simply to know where you can locate the sheep. The tags could also be very useful for monitoring the interactions between animals for mothering up.

In addition to these direct applications, smart tags could be used for several research and data analysis purposes to help woolgrowers optimise their flock's productivity. For example, in relation to flystrike management, wild dog alerts, grazing optimisation, health alerts and reproduction optimisation.

Being equipped with comprehensive data would enable woolgrowers to make 'data informed decisions'

Importantly, the system is being designed to be a labour saving innovation, aimed at taking some of the hard work and time out of wool-growing and contribute to an enterprise's bottom line. It could be used as an alternative to some of the jobs normally done in a ute or on a bike.

The technology is being designed to be low cost, long lasting and self-sufficient.

The system is to be made up of different components that all communicate with each other via wireless technology and to even be accessible while off the farm using the internet.

The system will utilise internet connection that could be provided by a wireless network similar to that detailed in the 'Wireless Farm' article in the September edition of Beyond the Bale. In fact, the photos on these two pages were shot on a farm trial at the 'Joyce's Park' property of woolgrower Tony Butler near Newstead in central Victoria, who was featured in that Beyond the Bale article and in the article on the right of this page.

AWI will continue development and small-scale trialing of the system. Larger scale trials will then be undertaken to test materials and cultivate further applications prior to a public release, potentially expected later next year. В



Installing a solar powered wireless antenna on Tony Butler's property.

WIRELESS NETWORK INSTALLED

Victorian woolgrower Tony Butler has recently installed a wireless network on his property, which he found to be a relatively simple process.

Tony Butler runs 8,000 sheep in a mixed enterprise at his 2,600ha family farm 'Joyce's Park', near Newstead in central Victoria.

Tony featured in the September edition of Beyond the Bale as a woolgrower who was keen to implement the Ubiquiti wireless technology on his property. In the past month, Tony has indeed installed the technology to remotely monitor a distant section of the property that persistently has been the target of sheep thieves in the past. Tony is also trialing AWI's smart ear tags on some of his sheep.

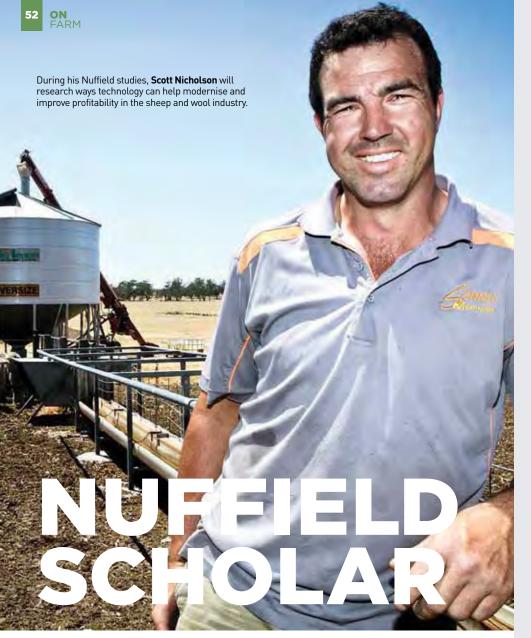
"The wireless network seems to be achieving our aims in the short term," Tony said. "We have it up and running and my nephew Matthew monitors it closely and we already have some dubious characters on film. We have been subject to quite a bit of stock theft over the years from this particular location and so security is the prime initial reason for us installing the network.

"I can see a wireless network having numerous other advantages. We are looking to extend the current system. Where we currently have our tower will give us a direct line of site to several other locations on the property that are relatively remote, and that should enable us to extend the system in the future and potentially install Wi-Fi spots.

"I think the greatest challenge in installing the network was picking a route for the optimum positioning of the microwave dishes because of the hilly nature of our property. It's not necessarily the shortest or direct route, but at the end of the day we did achieve the signal to where we needed it." B

Tony Butler examining a smart tag on one of his sheep.





FOCUSING ON TECHNOLOGY

Scott Nicholson from Stawell in Victoria has been awarded the **2018 Nuffield Scholarship supported by AWI.**

By supporting the Nuffield Scholarship program each year, AWI is increasing practical farming knowledge and management skills in the Australian wool industry.

2018 AWI-supported Nuffield scholar, Scott Nicholson, will research ways technology can help modernise and improve profitability in the sheep and wool industry.

Scott operates Bretton Estate, 2,900 hectares of owned and leased land with a mixed farming system that includes 4,500 Merino ewes for wool and lamb, broadacre dryland cropping, hay production and a lamb finishing system. Scott is also a partner in Sohnic Merinos at Marnoo, which is focused on breeding Merinos to optimise overall profitability.

He believes technology such as the adoption of mandatory electronic identification (EID) tags in Victoria has great potential to boost the industry through its improved traceability of individual sheep.

Scott said the industry can expand on this and will focus on researching technology in DNA and genomics; EID for performance recording and feedback; farm management software; handling and drafting equipment; drones and robotics; virtual fencing and remote sensors.

"Technology is everywhere, it's just a matter of sorting out the developments that can be of real benefit to the industry," he said.

Scott will travel to sheep producing countries to see the technology used in New Zealand, and North and South America to evaluate what could be adopted in Australia to make sheep producers' enterprises more efficient and profitable.

MORE INFORMATION

Information on previous
AWI Nuffield woolgrower scholars
and their reports are available
at www.wool.com/nuffield

BRETTON AUTO-FEEDER

Scott is no stranger to technology and innovation, and is an awardwinning inventor himself, having won an award at Sheepvention's 'farm inventors competition' for the Bretton Auto-feeder.

The Bretton Auto-feeder is an automatically filled feed trough for grain based finishing systems.

"With current climatic conditions a lot of the grass-based systems are falling short. Grain finishing systems are becoming a necessity if you want more options to finish your stock," Scott says.

"Anyone who has had experience feeding livestock in the traditional manner knows how time consuming it can be. An auto-feeder can save a lot of time and effort."

The Bretton Auto-feeder must be connected to a field-bin or silo at one end and power at the other end.

The feeder auger automatically switches itself on and off when required to ensure there is always feed available until the field-bin or silo is empty.

Scott says one feeder can feed up to 1,000 lambs, 500 per side/pen, based on an 18 metre feeder.

"One fill and you have feed for a month or more. An 18 metre feeder replaces the need for 6-8 (depending on size) traditional self-feeders, making the Bretton Auto-feeder very price competitive even without time savings.

"Other advantages include every animal gets the same feed mix as they are eating from one trough; it is filled from outside the pen; and minerals can be added when filling and will not block the feed trough."

MORE INFORMATION

View a video of the Bretton Auto-feeder on YouTube. Scott Nicholson, 0438 086 403, scott_nicholson@icloud.com

Scott Nicholson developed the award winning Bretton Auto-feeder.



TIME TO EMBRACE PRECISION **AGRICULTURE**

AWI-funded Nuffield Scholar Jack England has identified clear opportunities for woolgrowers to integrate precision agriculture (PA) and variable rate technology (VRT) in their businesses, to improve pasture efficiency and environmental outcomes.

2016 Nuffield Scholar Jack England manages his family's 3,200 ha mixed sheep, beef and cropping property near Kingston South East in South Australia. With a background in agronomy, he brought a scientific approach to his Nuffield farming scholarship, supported by AWI.

Variable-rate technology (VRT) is a technology that enables producers to vary the rate of inputs to their pastures or crops. It allows inputs such as fertiliser or irrigation water to be applied at different rates across a field, without manually changing rate settings on equipment or having to make multiple passes over an area.

"One of the largest overheads for a livestock business is the fertiliser bill. Yet despite limited global resources of fertiliser and associated future price increases, it is generally applied in a grossly inefficient manner where agronomic potential is left unrealised," Jack said.

"It makes economic sense for farmers, and society, to create more efficient livestock farming systems and make better use of the finite reserves of macro fertiliser nutrients, water and arable land. This also fits in well with society quite rightly demanding stronger agricultural nutrient run-off restrictions."

Jack's research took him to the UK. Israel and New Zealand, as well as Australia, to discuss the use of VRT with cropping and horticultural specialists, researchers and livestock producers. His goal was to establish an understanding of how PA and VRT could be extrapolated across the livestock industries.

Jack said his research was driven by his perplexity at livestock producers' willingness to acknowledge the cropping sector has enjoyed enormous efficiency and productivity gains using PA and VRT, while simultaneously having a resistance to applying the same technology to pasture.

"PA and VRT have been applied in cropping and horticultural industries to maximise plant biomass and quality parameters for many years, but are not yet widespread across pasture and livestock systems," Jack said.

"I believe livestock farmers must, like the cropping fraternity, make better use of

our finite resources by applying VRT to suit various agronomic growing conditions found within a field."

COST OF PRODUCTION

Reducing cost of production was a key driver of Jack's research. Discussions with livestock producers across the globe pertaining to their willingness to implement PA and VRT led to Jack developing a suite of recommendations based on soil science. plant monitoring and better understanding the relationship between animal behavior and nutrient removal.

These include the adoption of farm management software, use of spatial tools such as yield and topographical maps to identify variations in paddocks and biomass, fertiliser application based on zoning, objective measurement of treatment responses and continued monitoring of application sites.

Jack also recommended external assistance be sought by producers whose knowledge of PA or VRT is limited and a 'nursery' or staged approach to integrating this management framework by starting with a small number of targeted paddocks.

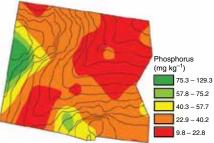
"Development of zone-based variable rate fertiliser applications, driven by an understanding of how all soil, animal and plant spatial datasets interrelate, could soon unleash substantial improvements in the livestock sector's productivity," he said.

"These systems will also enhance growers' ability to analyse enterprise and management differences.

"While presently a daunting task, development of spatial tools incorporated into easy-to-use commercial decision support applications will most certainly allow farmers to make better fertiliser investment decisions and grow more pasture more efficiently in the future."

MORE INFORMATION Access Jack's Nuffield report and view a recording of his Nuffield presentation at www.wool.com/nuffield





Phosphorus in-field variation in Australian livestock grazing system as measured using Colwell P. Five zones of Colwell P (mg/kg) are shown, depicting the effect of slope and vegetation, and showing the high concentration of P in stock camps. (Source: Trotter et al, 2014, Crop and Pasture Science).

KEY POINTS FROM JACK'S RESEARCH

- Variable rate technology has demonstrated significant productivity gains for the livestock sector through strategic placement of fertiliser.
- Mature animals absorb minimal phosphorus (P) obtained from grass, but redistribute nutrients and excrement to frequently used small parts of a paddock. Don't spread P here.
- Young, growing stock absorb the lion's share of P and are commonly weaned and grown out in the same paddocks annually. Replace what is removed using grazing data. Feeding to the farm average is potentially penalising pasture growth in these paddocks.
- Easy to use software programs capture individual paddock carrying capacities amongst other benefits. Fertilise appropriately, based on each paddock's stocking rate.
- Sensors fitted to an animal turns them into yield monitors and identifies where nutrients are being removed and redistributed.
- 'Soil tests from the sky', pasture quality and quantity measurements using optical sensors will aid targeted grid/ zone-based soil testing programs.
- Start somewhere. Start small and assess costs vs benefits. Paddocks with known pasture growth variability or soil constraints are a good place to start.



Bert Matthews and Carol Huggins, both from Hay in NSW, are the latest woolgrowers to graduate from the Australian Rural Leadership Program, and will use their knowledge and experience for the advancement of woolgrowers.

The Australian Rural Leadership
Program (ARLP) is rural Australia's
iconic leadership development program
that aims to produce a network of informed,
capable and ethical leaders who are able to
work collaboratively to advance the interests
of regional Australia.

AWI funds the participation of wool industry leaders in the ARLP. These wool industry leaders engage with AWI, the wool industry and community about the learnings from the ARLP and continue to use these learnings for the benefit of rural and regional Australia, and the sheep and wool industry in particular.

The ARLP course provides a series of challenging experiences to develop leadership capabilities. It consists of about 50 days face-to-face, delivered in multiple sessions over 15 months. Five of these sessions take place in locations across Australia, including the Kimberley, a state capital city and a regional area, and involvement in Canberra's political scene. One session takes place overseas with a visit to one of Australia's closest neighbours, Indonesia.

2016-17 WOOL INDUSTRY GRADUATES

Bert Matthews, who with his wife Liz runs 'Bedarbidgal' at Hay in NSW, and neighbour Carol Huggins who runs the nearby 'Eurolie' and 'Woodpark Poll Merino Stud', with her husband Stephen, graduated from the 2016-17 program in October thanks to sponsorship from AWI.

"Has this program changed me? My answer is most definitely 'yes'," Bert said. "There are so many things that have truly made this program a wonderful life changing experience and I am kicking myself because I should have done it earlier."

Before he went on the program, Bert already had a lot of leadership experience. He is the Captain of the local Bushfire Brigade and is on committees for the Hay Merino Sheep Show, Hay Merino Breeders, and Peppin Shaw Riverina Ewe Flock Forum. He was also President of his local golf and rugby league clubs.

"I had been thinking of withdrawing from community activity to let others – younger people with fresh ideas – be the catalyst for change. But a past graduate suggested I should apply to the program, and I am so glad that I did because it is one of the best things I have ever done in my life."

Carol also is very enthusiastic about her experience on the course and says she feels privileged to have done it.

"There were lots of highlights and it is hard to pick one," she said. "The program fast tracks a broad range of training and condenses years of experience into 15 months."

Carol serves on several industry boards and committees and is a founding board member of the grower driven sheep research and extension organisation, MerinoLink. She came to Hay from a childhood in WA's wheatbelt via a career in rural communication, facilitation and agribusiness.

"From a personal perspective, I would say the key thing the program has given me is a greater awareness of how I can use my various skill sets in strategic planning, business planning and media for the betterment of my industry and community," she said.

"More generally though, the exposure to and interaction with the other people on the course – and the benefits of having an extensive and supportive alumni network going forward – has been invaluable. The facilitated approach to the entire program was a real strength of the course too.

"The experience in the Kimberley was very interesting because we were all spending time with other leaders from different backgrounds that we wouldn't usually meet. It made you challenge yourself, test your own approaches to leadership, and take into account a range of perspectives."

Bert agreed and said the greatest attribute of the program for him was the bringing together of participants from such a diverse range of backgrounds, industries and communities, who have all shown an ability to lead.

"Allowing these individuals the time and space to safely and honestly give and receive feedback on my leadership style and personality is very rare in society today," Bert said. "Our initial two weeks in the Kimberley had a profound effect on me. For the first time in many years the thought processes in my mind were cleared and I was focused only on our group and the experiential learning that I could glean from the experience."

FROM WANGARATTA TO JAKARTA

Carol highlighted the benefits of how, later in the program, participants had the opportunity to immerse themselves into regional politics and business, around Wangaratta in north-east Victoria.

"There we were exposed to the theme of how to achieve a positive outcome," Carol said. "What we learnt is that to achieve a desired outcome, everyone needs to be jointly involved in the journey towards that outcome; and ensuring the outcome is one for the greater good of the community. Leaders have to focus on the 'why and how' to achieve an outcome."

Bert added, "It reinforced that as an individual we can achieve great things but as a collective we can achieve greater things. A good idea or project will not fly simply because it was a good idea; it is the people that create the change and as individuals we need to bring the people with us if we are to be successful in creating the change we wish to see."

The time towards the end of the program spent in Indonesia – a country of more than 250 million people – was a real eye opener for most of the participants.

"For a country where there is extreme poverty visible, there was a sense of happiness and well being amongst the people," Bert said.

"There was a valuable take home message here. If there is a problem that requires a solution then it only takes one person to lead the change if they bring the people with them. We witnessed this on many levels throughout Jakarta."

Carol said she too knew little about Indonesia before she visited

"It was interesting to see how leaders operate in a country very different to Australia. But in many respects farmers are actually the same everywhere – they all care about their community."

> **MORE INFORMATION** www.wool.com/ARLP



Woolgrowers Bert Matthews and Carol Huggins, who undertook the 2016-17 ARLP course supported by AWI, graduated in October. PHOTO: Fiona Myers/ Newspix



2016-17 ARLP course participants receiving thoughts on leadership during a panel discussion with Federal MPs Cathy McGowan (Indi, Vic), Joel Fitzgibbon (Hunter, NSW), Rebekha Sharkie (Mayo, SA) and Senator Fiona Nash (NSW) in Canberra in October.

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RETURNING TO THE FAMILY FARM

ADVICE FOR YOUNG FARMERS

What should young farmers consider when starting out on the family farm? That question was posed to the very knowledgeable agribusiness consultant Ken Solly at this year's BestWool/BestLamb Conference. He gave young producers – and their parents – some very valuable advice. Read on.

Winner of last year's inaugural Rural Consultant of the Year award, Naracoorte-based Ken Solly, has regularly supported and mentored young farmers for the past 30 years. So it was no surprise that his presentation on how young farmers can address the challenges of taking on the family farm was particularly well received at the conference.

Ken provided five key points on what young farmers must do to succeed.

"Firstly, you must have farming in your guts," Ken said. "If you don't have that intrinsic love for the land, you're probably going to struggle, because the two most important things in agriculture – the weather and the market – are out of your control and both will have a huge impact on your livelihood.

"Secondly, stay on a fast learning curve because you must aim to be in the top 20% of farmers.

"Have defined 20-year goals. You need to know where you and the business are heading. If you don't know where you are going, any road will get you there, but there is a fair chance you will be dissatisfied with your destination.

"You must also get some very good mentors around you, people that you can really learn from, people who will actually help with your discipline. There are too many 'gonnas' in agriculture; you need to have discipline to follow through with your plans.

"And lastly, you must hang around with better farmers than yourself. Make sure you try and ascertain who the top farmers are, and try and learn from them all the time."

BEFORE YOU COME HOME TO THE FARM

Ken said he reckons that in society, about 20% of people are in a job that suits them, 40% are not far off their right job, but 40% are in the wrong job.

"Before you decide on a career in agriculture, you should test-drive two other occupations outside of agriculture, so that you're then in a position to make an informed choice about your career going forward.

"If farming turns out to be your preferred choice, then work for at least three of the very best farm employers you can find – make sure they are quite different to each other, are top 20% farmers, and are

good teachers. Spend at least a year with each employer so you can see their whole business cycle and, most importantly, make your mistakes at somebody else's expense, rather than your own."

Ken advises young farmers that have decided to go home to the family farm to make sure their parents have written down a (1) Business Plan, (2) Personal Plan, (3) Succession Plan, (4) Estate Plan, and (5) Retirement Plan.

"When returning to the farm, you must understand what your parents' plans are, because these things are going to have a huge impact on you. Without knowing their plans, you're flying blind. The earlier the plans are defined and written down, the easier it will be for you.

"The written plans don't need to be complex. The best business plan I ever did was on one sheet of paper where we listed all the goals. Keep it simple.

"While the golden rule in business is 'don't go into business with family or friends', family farming of course breaks this rule so it's vital to get good structures and discipline to avoid problems."

YOUR 20-YEAR PLAN

Ken emphasised the importance for young farmers to set themselves 20-year goals.

"In your farming career, you will get about 40 seasons, 40 chances. There might be six or eight really poor seasons out of those 40, and you'll spend another eight to 10 years trying to make up for those lean periods. So you'll probably only get about half of those 40 years to be really profitable. Without a long-term vision, there would be times when you get very disheartened.

"Having 20-year goals also takes some pressure off succession."

Ken said there must be several important aspects that that underpin the 20-year plan.

"You must of course cash flow the plan – ensure there is a good return on assets. Make sure you factor in poor years.

"It's also important to ensure your family knows your plans and that it fits in with their own plans, and make sure your family are prepared to back you and be a guarantor. Make sure you understand the plans of others in the mix too.

"Aim to transition responsibility for the farm over time, and understand the impact of births, deaths, marriages and divorce on your plan."

ON RETURNING TO THE FARM

Ken said that, first and foremost, it's important that young farmers understand that agriculture is a people business.

"It's important to get the people right, and the rest can just follow. Lack of profit in the long term is a people problem. If you get the people right, the production and profit will follow.

"So assemble a good team around you, and work tirelessly on your relationships, not just with your family, but with your support team – this is what will make or break your future.

"Everybody on a family farm needs a job description, so there are clear responsibilities and no blurred lines. Revisit the job descriptions each year, and gradually reallocate responsibilities so that you take on more on the farm."

Ken advises that, as well as a 20-year plan for the business, you should have a personal development plan that is one per cent of the farm's gross income.

"Keep remembering, farming is a people business. You should each year be doing training courses in areas like communication, problem solving, negotiation, stress management, conflict resolution and leadership –for example to improve your ability to negotiate sales.

"Keep in mind the quote of leading American consultant Andrew Carnegie who said: '85% of your financial success is due to your personality and ability to communicate, negotiate and lead. Only 15% is due to your technical knowledge."

FORMAL MEETINGS

Ken is an advocate of having regular formal meetings involving the people in the business, to help decision-making and aid the efficient running of the farm.

"That half-hour operational meeting on a Monday morning can be very useful for most farms, but I think monthly planning and management meetings are really quite critical, to stay on top of the finances and be able to keep doing forward plans because nothing really stays the same for very long.

"In fact I think now, particularly where personalities are quite different on a farm, that there should be a family farm board, which could involve two members from outside the family who have skill sets in which the family is deficient. You might also invite one of your support team to come and make a contribution.

"Of course, it's always important to involve a consultant, agronomist, banker or accountant in major decision making."

Ken stressed the importance of having a process to resolve disagreements amongst business members about operational and strategic issues on the farm.

"Disagreements in the business are bound to occur; in fact they are usually quite healthy and can be quite productive. But if you can't come to a decision, you need to have somebody that you can call on to help facilitate, add further ideas, and help get to an agreed position."

BUSINESS SKILLS

Ken said it's important that young farmers learn the fundamentals of business.

"Regardless of what business you're in – it is all about margins," he said.

"Young farmers need to understand these three things: cash, profit, and wealth. It's all very well to generate a lot of cash, but you might have spent a lot getting it, so how much of that is actually turned into profit? And then it's all about how well that you actually use that profit to turn it into wealth? If you tend to spend a lot of this on depreciating assets, then over time, not a lot of wealth will be created.

"Understand the key drivers in the business. Allocate resources well. Have good planning, monitoring and analysis skills: Measure, record, measure, record, measure, record.

"As I said before, have great personal discipline and keep your eyes firmly on the goals of the business. Have a support team around you, and remain abreast of new technology.

"Perhaps the most important thing is to milk every mistake you make for all it's worth so you don't make the same mistake again and again – that's what good operators do. It's not a mistake the first time, it's a real learning opportunity."

Ken reckons that the basics of being a good business person boils down to these

five core things:

"Firstly, mindset. Your attitude is absolutely paramount. Recruit for attitude, train for skills.

"Secondly, structures and systems in your farm – you have got to have them.

"Planning. You need to make sure the five Ws – the What, When, Who, hoW, Why – underpin your strategies and tactics.

"The chemistry on the farm – is it right? Do the relationships gel?

"And lastly, the culture. Have your values on display: trust, honesty, integrity, time management, innovation. These things are really good on most farms, but it doesn't mean you can't find areas where you can improve."



CONCLUDING REMARKS

In closing his presentation, Ken provided some final words of wisdom to young farmers joining the family business.

"Your relationship with Mum and Dad is non-negotiable. It must be the best it possibly can be, and your attitude needs to be top, and don't ever see yourself as a victim of circumstance.

"Always elicit objective feedback. A lot of people might see that as criticism, but it's one of your greatest ways of learning. Always deal with the hard, cold facts of all situations and make sure the head, not the heart, is making the decisions.

"Always be sceptical of your own beliefs. I see so many people in the industry that have doggedly held on to their particular view on an issue over time. But you've got to keep yourself open to new opportunities because they could be better."

And finally, perhaps the best life advice of all:

"If work does not have elements of fun and enjoyment, then change things or rethink your future."

MORE INFORMATION:

Ken's presentation – along with 11 other presentations from the conference – was recorded and is available free on YouTube to be viewed by anyone across the country. Ken Solly, Solly Business Services 0427 620 895 kensolly@rbm.com.au



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NEW SHED FACILITIES

EASIER ON STAFF AND SHEEP

Woolgrowing and shearing have always been physically tough livelihoods, but the **state-of-the-art new shearing shed and handling facility** on 'Meander Lakes' in Westwood, Tasmania, has made the livestock operation physically easier, more efficient and safer.

established Meander Lakes in Westwood, Tasmania, is currently undergoing significant redevelopment through the work of owner Richard Carling and manager Ross Young. The property spans more than 5,000 acres with roughly 2,000 acres of bush country, 2,000 grazing and a further 1,000 acres of improved pastures and irrigation.

The enterprise is looking to increase stocking rates and run a mixed livestock operation of composite ewes and beef cattle. For Ross and the team, the initial plan included a complete redevelopment of infrastructure to facilitate growth.

"Richard purchased the property about 12 months ago. Since then, we've spent a lot of money on improvements such as fencing, irrigation upgrades and livestock handling facilities," Ross said. "The end goal is to run 4,000 composite ewes here plus some cattle."

As well as more than 20km of new fencing, the property redevelopment included a state-of-the-art shearing shed, and sheep and cattle handling facility in an effort to boost safety and efficiency of the livestock enterprise. With a large shelter covering both the sheep and cattle facilities, Ross and his team can work comfortably in all weather conditions while offering extended dry storage of sheep during shearing.

Other improvements include a kitchen and lunchroom facilities, toilets and a new workshop.

"When Richard bought the place, we sat down and drew up a plan of what we wanted to do in the next five years. Ideally we'll have this set up for a one-man operation and this facility is helping us make it a lot simpler and quicker.

"The shed here is a fair-sized shed for Tasmania standards. The idea is to get out of the weather when we work on the animals. Out of the sun, out of the wind and out of the rain. It just makes life a lot easier."

The combination sheep and cattle handling facility designed by ProWay stockyard designer Joe Hoban, is housed under a single gable roof structure supplied by Aussie Sheds Tasmania. The stockyards link strategically with the new shearing shed which holds approximately 400 sheep on elevated grating.

The shearing shed fitout features a 4-stand straight board design and is constructed with a combination of pre-fabricated, galvanised framework and cypress pine joinery on-site. The board is built with return races for animal welfare purposes and to improve the count out process, while individual catching pens are sloped for shearers, making the drag easier. Each shearer has an individual large shelf to house their combs, cutters and tools.

The grating in the holding pens is a contemporary fiberglass composite that boasts high strength, longevity and noise reduction. The product is relatively new to the market and supplied by Grating Tasmania with a surface that is also non-slip and easy to clean.

Much of the yards allow multi-species management with the addition of sheep proof cattle panels and gates, increasing the overall holding capacity and flexibility of the system. The sheepyards include a unique "lift-swing" sheep rotary force and curved sheeted race which leads up to a TePari Racewell Handler. Other features include a raised classing race, serpentine draft and concrete footbath.

All animals are managed through the facility for a variety of husbandry operations. EID ear tags are utilised, allowing Ross to track growth rates and progeny through the electronic scanning system, improving the overall traceability and genetic improvement on the property.

"Currently we bring the sheep in from the yards straight through to the shearing shed. They are shorn and we then take them back around the yards for weighing, drenching and electronic ear tagging. It certainly works and it works really well."

MORE INFORMATION:

For more information and a video of the shed in action, visit www.proway.com.
au/2017/06/meander-lakes



Manager, $\mbox{\bf Ross\ Young}$ overseeing the shearing at Meander Lakes.



The four-stand straight board **shearing platform.**



The Sheep Rotary Force featuring a lift-swing gate.



The Meander Lakes **sheep handling facility**, enabling work to be completed regardless of the weather.

'SHEAR EASY' TRAINING CAMPS

Training camps supported by AWI are providing shearers and woolhandlers with knowledge and advice to make their job easier with less stress on their body.

ore than 20 shearers looking to improve their performance in the shed or on the competition board attended a five-day training camp at Dubbo in August sponsored by AWI and The Evolved Shear Fitness.

The shearers learnt from some of the best in the industry. The camp was organised by fitness trainer and former shearer Dylan Fowler, and multiple times NSW representative shearer and AWI shearer trainer Wayne Hosie. Multiple world record holders and AWI trainers Stacey Te Huia and Dwayne Black also taught the group.

Each day consisted half a day of health and fitness training at a local gym and half a day of shearing training at Dubbo TAFE shearing shed.

"Shear Easy was put together to share our knowledge to help shearers do their job easier and become the very best they can be," said Dylan. "We showed participants how to improve their shearing pattern, footwork and gear and also improve their fitness, nutrition and how to take care of their body to reduce the risk of break downs."

FITNESS AND NUTRITION

Dylan said that if shearers want to make the most of their careers, having good fitness and nutrition is an absolute must.

"I spent five years as a shearer myself and was around the sheds most of my life, so I know the unique demands shearing puts on the body. If everyone looked after their bodies there would be better performances and a lot less injuries in the shed," he said.

"At Shear Easy, I showed the shearers how to increase their fitness for shearing. With the help of a physiotherapist we did daily mobility and recovery sessions, teaching them how to get their bodies more flexible and thereby recover faster and have less injuries. We also covered the best ways to do strength and endurance workouts in the gym and which muscles to target for shearing and handling big sheep.

"The participants were also advised how to make better nutrition choices to help them recover faster, shear more sheep and do it easier. For the whole camp, we supplied really healthy meals for the shearers so they could see how good nutrition affects them and gives them more energy. We also showed them how to prepare healthy food, so they'd know how to look after themselves better when they went home."

EASIER SHEARING

Shearing trainer Wayne Hosie said the aim of the course was to make the shearers' jobs easier and more productive.

"When it comes to shearing there are basic fundamentals and rules that apply to everybody. What we wanted to do was give the shearers different options around those rules (because we all have different goals with our shearing) so that the shearers at the end of the course could make more informed decisions.

"We covered topics like footwork, angles and sheep positioning; comb dressing; grinding and gear maintenance and stand set-up.

"The shearers at the course made massive changes and really noticed the difference inside the shed."

Shearer Michael Newton of nearby Gilgandra who attended the training camp said he would definitely recommend other shearers to do the course

"I wanted to get information on what fitness training would be good or bad for shearing, and how to train for shed shearing and records," Michael said. "What I've learnt during the week will definitely bump up tallies and enable me do it a lot easier.

"We've been taught a lot about gear and shearing technique, and I've especially appreciated learning how to better look after my body, how to loosen up and target areas where I have been tight, what heart rate to train at, and how to treat myself if I have injuries."

ADVANCED WOOLHANDLING

Another shearing training camp was held last month, which was run with an accompanying course for advanced woolhandlers, with top trainers Penny Clout and Rachael Hutchison.

Like the shearing course, the wool handling course was aimed to give participants the knowledge and advice to take their career to the next level.

"Participants learnt how to improve their skill set (timing and technique), the ins and outs of competition, how to fuel the body for a big day with good nutrition and fitness, how to do it easier every day in the shed and how to peak for competitions," Dylan said.

MORE INFORMATION:

For further information on upcoming courses, keep your eye on www.facebook.com/ShearEasy or contact Dylan Fowler on 0466 873 964 or info@theevolved.com.au



Shearers at the AWI-supported ${\bf Shear}$ ${\bf Easy}$ ${\bf training}$ ${\bf camp}$ at ${\bf Dubbo}$ in August.

COMPETITIONS PROMOTE EXCELLENCE

AWI provides support to shearing and woolhandling competitions at local, state and national levels. The aim is promote excellence and encourage better techniques in shearing and woolhandling.

WI once again sponsored the National Shearing and Woolhandling Championships and Trans-Tasman Tests. which were held this year at Bendigo in Victoria in October.

In addition to these competitions at the event, a highlight was AWI mentoring workshops at which novice, intermediate and senior wool handlers and shearers had the opportunity to learn and refine their skills from some of the very best professionals in the country, including shearer trainers Brian Sullivan, Tom Kelly and Arty Hauraki and wool handler trainers Penny Clout and Marion Kelly. They then also had the opportunity to compete in the novice to senior shearing and woolhandling competitions at the event.

AWI provides support for these events plus many local, regional and state shearing and woolhandling competitions across the country - with the main aims of promoting excellence within the shearing industry, and to encourage young people to join the industry.

AWI Shearing Industry Training Development Coordinator Jim Murray says AWI is keen to raise the profile and status of the shearing industry by enabling participation in well conducted shearing and woolhandling competitions.

"Competitions help encourage better techniques in shearing and woolhandling, which is for the benefit of the woolgrowing industry from which they derive," he said.

"AWI's support aims to encourage a quality workforce, an interest in wool, and an appreciation of the art and skill of shearers and wool handlers. AWI's financial support for competitions makes a significant impact on the viability of many competitions."

2017 NATIONAL SHEARING AND WOOLHANDLING **CHAMPIONSHIPS RESULTS**

NATIONAL SHEARING FINAL

- 1. Daniel McIntyre (NSW) 102.72
- 2. Jason Wingfield (Vic) 104.72
- 3. Shannon Warnest (SA) 105.58
- 4. Justin Dolphin (SA) 108.22
- 5. Nathan Meaney (SA) 108.72
- 6. Dan Mraz (Vic) 126.10

NATIONAL BLADES FINAL

- 1. Ken French (Vic) 63.22
- 2. John Dalla (SA) 63.90
- 3. Andrew Murray (NSW) 101.73
- 4. Terry Rowbottom (Vic) 103.48
- 5. Shaun Wilson (NSW) 109.50
- 6. Leearna Cook (Vic) 116.58

NATIONAL WOOLHANDLING FINAL

- 1. Mel Morris (Tas) 39.23
- 2. Sophie Huf (Vic) 45.53
- 3. Aroha Garvin (WA) 49.03
- 4. Janise Hebberman (SA) 56.13
- 5. Kelly Hazel (Tas) 63.90
- 6. Bruce Lines (Qld) 65.30

NATIONAL TEAM FINALS

- 1. Tasmania 80.67
- 2. Victoria 95.82
- 3. Western Australia 102.78

TRANS-TASMAN **TEST RESULTS**

TRANS-TASMAN SHEARING TEST

1. Australia 247.47

Daniel McIntyre 80.80

Shannon Warnest 81.92

Jason Wingfield 84.75

2. New Zealand 290.67

John Kirkpatrick 93.87

Troy Pypor 95.05 Rowland Smith 101.75

TRANS-TASMAN **BLADES TEST**

1. New Zealand 156.40

Tony Dobbs 75.22

Phil Oldfield 81.18

2. Australia 164.23

Ken French 80.28

John Dalla 83.95

TRANS-TASMAN **WOOLHANDLING TEST**

1. New Zealand 30.90

Joel Henare

Maryanne Baty

2. Australia 37.55

Mel Morris

Sophie Huf

The next Trans-Tasman Test will be held at the Golden Shears in Masterton, New Zealand, in March.



Daniel McIntyre (left) shearing in the National Shearing Final in Bendigo to become the 2017 Australian Champion, taking the crown of 2016 Australian Champion Shannon Warnest (right). PHOTO: Flick Wingfield



AWI mentoring workshops were also held at the National Shearing and Woolhandling Championships, with participants having the opportunity to compete in the novice to senior shearing and woolhandling competitions. Pictured are Novice Woolhandling Heats. PHOTO: Flick Wingfield

AVERAGE MONTHLY EMI COMPARISON

EXCEPTIONAL PERFORMANCE FOR FINER AND MID MICRONS

EMI'S STELLAR RUN CONTINUES

The chart opposite provides a snapshot of how well the AWEX monthly Eastern Market Indicator (EMI) and a range of microns have performed for the past three months (August 2017 – October 2017) in Australian dollar terms compared with the previous five years August 2012 to July 2017 (circles) and the decade previous to that, August 2002 – July 2012 (squares).

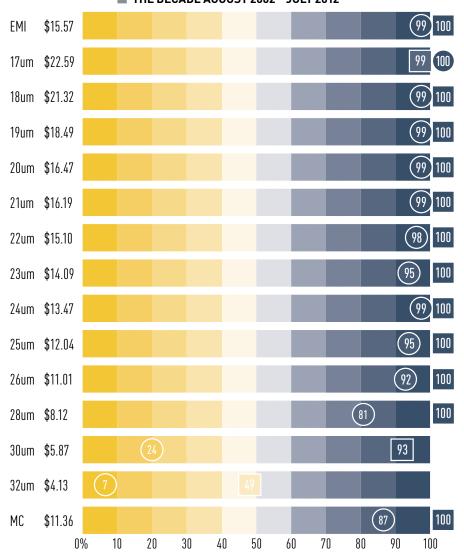
For the past three months, the monthly EMI averaged at \$15.57, tracking at the 99th percentile against the previous five-year monthly EMI. The percentile value (99th) indicates that the five-year monthly EMI recorded a price lower than \$15.57 for 99% of that time. Or to put it another way, in the previous five years the monthly EMI has recorded a price higher than the current \$15.57 (August 2017 – October 2017) for only 1% of the time.

While the EMI is tracking at the 99th percentile over the previous five years, it is at the 100th percentile when compared to the decade August 2002 – July 2012. This means the current EMI of \$15.57 (August 2017 – October 2017) is higher now than it was for all that decade.

The mid and finer microns and Merino Cardings (MC) have continued to perform particularly well recently. For the past three months Merino Cardings averaged at \$11.36, operating at the 87th percentile for the previous five years and the 100th percentile for the previous decade.

For the same period, 18 micron averaged at a monthly value of \$21.32 (99th percentile for the previous five years and 100th percentile for the previous decade), 21 micron averaged at \$16.19 (also 99th percentile for the previous five years and 100th percentile for the previous decade), and 28 micron averaged at \$8.12 (81st percentile and 100th percentile respectively).

AVERAGE MONTHLY EMI FOR AUGUST 2017 – OCTOBER 2017 COMPARED WITH PAST 5 YEARS AUGUST 2012 – JULY 2017 THE DECADE AUGUST 2002 – JULY 2012



MARKET INTELLIGENCE: FREE VIA SMS

In an initiative launched in March this year, AWI is sending wool prices and market intelligence direct to about 5,000 woolgrowers' mobile phones.

The woolgrowers receive the latest movements in the EMI in a simple text message (see left image), including a link to a full price report that provides more detail about price movements (see right image).

If you would like to subscribe to the free SMS service, visit **www.wool.com/sms** 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 by replying to the AWI SMS message.

MORE INFORMATION www.wool.com/sms





IGENCE REPORT

PRICE RISES DRIVEN BY DEMAND

The past six years at Australian wool auctions has seen powerfully increasing price levels (bull run) and is indicative of the strongest of demand signals, particularly more so given the relatively unchanged supply scenario.

his situation is perhaps compelling evidence as to why exporters and the majority of manufacturers for the past few years have been operating very much to a "hand to mouth" basis and reticent to lock in forward contracts at "today's prices or less".

To bet against market trends that have been in place for five or six years for any sort of exposed volumes would simply be called gambling and the modern day trade is first and foremost founded on risk adverse trading behaviour and cautious operational methods. Looking at Figure 1 (right), a price resistance situation has seemingly not been recognisable or predictable in any way, shape or form.

Today's situation within the Australian wool markets is thankfully a positive one, as woolgrowers are enjoying receiving some of the best clip returns they have had in decades. As at the end of the second week of November 2017, the AWEX EMI stood at 1681ac/clean kg and swiftly breached the record levels of 1614ac/clean kg for the week ending AWEX EMI figure. This level was set earlier in this season in August 2017 in Week 7 of the auction series. This represents a year on year increase of up to 30% of the value of Australia's wool clip.

Looking towards the Australian wool supply situation, the volume of all wool tested through AWTA Ltd has been relatively stable over the past six seasons. During that period the tested volume has been revolving around 360 million kgs greasy plus or minus 5%.

Early indications at the end of the first quarter of the current season show that production is on the increase once more, with 9.2% additional weight flowing through the test house as compared to the same time period of last year. This follows on from the 5% increase recorded last year to see wool volumes tested go to 357.9 million kgs from the 2015/16 season figure of 340 million kgs.

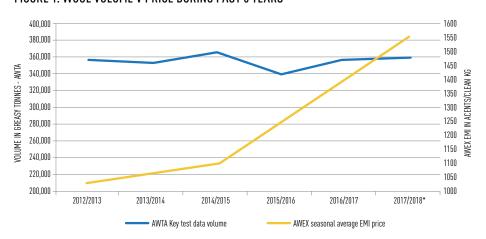
Within the overall supply figures, the breed make-up of the Australian clip has also barely changed. Recent anecdotal accounts of "everyone moved to crossbreds or fat lambs" and that is "why the total wool supply has remained constant" cannot be borne out by any figures of wool being tested through the AWTA Ltd. In fact, the opposite is being evidenced (see Figure 2). The past season has seen the lowest volume of crossbred micron

wools tested for eight years. Last season the crossbred micron wools made up 18% of the Australian wool clip tested compared to 21% back in the years 2010 to 2012.

What is clear from these data sets, is that a fundamental shift in demand for Australian wool has been rebuilt into the global textile industry over the better part of the previous decade. In very simple terms, consumers are exercising their discretionary spend on

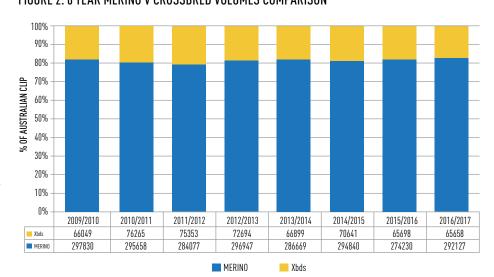
luxury items and that includes wool. The wool markets are sustaining the bull run on price, and this is in tandem with a very stable production scenario. These conditions have led us to a point whereby growers who have stood steadfast to their industry are justifiably and consistently being rewarded for their efforts. As economic conditions are forecast to continue to improve throughout the world, this should assist to enshrine these sorts of price levels into on-farm modelling.

FIGURE 1: WOOL VOLUME V PRICE DURING PAST 6 YEARS



Source: AWTA Key Test Data and AWEX - 2017/18* projections only

FIGURE 2: 8 YEAR MERINO V CROSSBRED VOLUMES COMPARISON



Source: AWTA Key Test Data



China-based wool agent **Lizzy Shen**

AN INSIDER'S VIEW ON

CHINA

China-based wool agent Lizzy Shen provides in this article, written especially for *Beyond the Bale*, her insights into the rising wool prices and low stocks of wool at Chinese processors.

A ccording to Chinese Customs, China imported 192 million clean kgs equivalents of raw wool from January to September 2017 from all origins, 2% more than during the same period of 2016. However, almost all Chinese customers feel there is not enough wool around. "Where has the wool gone?" they ask.

Most China top making mills are in a hand-to-mouth state since the beginning of the season. They have been afraid of price drops, thus they hadn't bought any extra stocks. Meanwhile, the traders have been quiet as they can see no profit margin in booking in US Dollars and then selling in RMB (Renminbi or Chinese Yuan CNY) after arrival of the wool in China.

The current situation sees China maintaining very low stocks of greasy wool, wool tops and yarns. The majority of wool processors were expecting the wool prices to drop, but the reality is the Merino prices are going higher and higher, no matter whether it's fleece, skirtings, cardings or dags! Everyone is bewildered why the prices are ever climbing up. The mill owners dislike the prices, but they cannot wait forever. They have to buy to keep their very expensive machines running. As one mill owner said: "When you drive a car, you have to buy gas no matter how expensive it is."

Why do the wool prices stay high? My personal reading is that apart from the usual regular demand, we have seen two top selling and recently new fabrics of double face and less popular wool fake fur. Both of these two types consume large amount of wool compared to the traditional woollen fabrics.

The unusual fake fur demand has really made the traditional wool users confused. When demand pushed the prices up, they were surprised. When the demand cooled off a bit and the price started to drop, they were lost as to what should be the right point to then buy. I have a number of Chinese buying customers who tried to predict the market but turned out to be wrong. From September to October 2017, they kept telling me that 19.5 micron and broader Merino had to come back in price. Some even sold the wool tops before booking the greasy, hoping to buy at a more favourable and profitable price level. Now they are very disappointed, and

obviously out of pocket, by the price rises. The longer they wait, the higher the prices have gone. With not much time left before Christmas break, they will eventually have no other choice but to buy. The increasing capacity of top making and good demand for

wool in China are a convincing support for the wool prices to stay in the high territory.

Based on all above facts, I am optimistic about the wool prices in the next three months. After that, it is too far to see.

AUSTRALIA LEADS GREASY WOOL IMPORTS INTO CHINA

China import figures supplied by Nanjing Wool Market for the period January to August 2017 (below), show that Australian wool comprises 68% of the volume of greasy wool imports, but more importantly 79% of the value. Not only is Australia dominant in terms of the amount (kg and \$) imported into China, but Australia also leads the world for the average US\$ per kg paid for the importation of raw wool into China.

IMPORTATION OF WOOL INTO CHINA

	Volume (kg)	Value (US\$)	IIC¢/kg
			US\$/kg
Australia	122,843,314	1,312,881,300	\$10.69
Argentina	3,719,935	38,771,613	\$10.42
Lesotho	1,553,956	15,977,368	\$10.28
South Africa	13,592,969	136,767,474	\$10.06
USA	1,261,036	9,570,049	\$7.59
Uruguay	3,056,854	22,014,680	\$7.20
Chile	1,669,311	10,818,175	\$6.48
Spain	3,412,150	17,916,130	\$5.25
New Zealand	13,621,069	60,762,322	\$4.46
Canada	70,471	291,331	\$4.13
Hungary	769,791	2,761,554	\$3.59
Belgium	1,509,893	5,158,416	\$3.42
France	1,260,229	3,817,780	\$3.03
Netherlands	588,838	1,763,332	\$2.99
Germany	811,211	2,127,933	\$2.62
Italy	725,508	1,744,036	\$2.40
UK	3,690,825	8,405,316	\$2.28
Ireland	281,716	611,255	\$2.17
Kyrghyzstan	203,034	182,730	\$0.90
Kazakhstan	2,504,620	2,050,512	\$0.82



NEW ONLINE PORTAL TO LAUNCH IN JULY

The new online portal now known as WoolQ will launch in July 2018. It aims to provide woolgrowers, classers, brokers and buyers with access to a host of pre and post trade information to improve efficiency and quality across the industry.

The Wool Exchange Portal project is well on track to deliver digital opportunities for the wool industry.

The new portal is now known as 'WoolQ', reflecting its aim to be a digital HeadQuarters for the wool Industry – a centralised, online hub where industry information, data, selling choices and trading opportunities are at your fingertips.

Whether you're a woolgrower, a wool classer, a broker or a buyer, the WoolQ portal will be a tool delivering many benefits to all its users.

The build of the WoolQ portal is currently under way and on track for the 'go-live' in July 2018.

In advance of July, there will be various updates and opportunities for woolgrowers and other wool industry participants to be involved in trialling the portal. Register your interest at www.woolq.com to ensure you are kept up to date.

WoolQ is the result of the Wool Selling System Review in 2014, which identified that a digital wool portal would support the advancement of the wool industry. Many months of industry consultation, debate and user workshops ensued, to determine the most desired functionality and best possible user experience.

Once launched, WoolQ will be available to users anywhere, any time. Whether users are in a woolshed or out and about, the WoolQ tool can still be accessed. WoolQ can be used on a mobile phone, a tablet, a laptop or desktop computer – 24 hours a day, 7 days a week.

For those situations where no Wi-Fi or internet connection exists, a WoolQ app will also be available, so that users can still access and record critical information, such



Once launched, WoolQ will be available to users anywhere, any time and can be used on a mobile phone, a tablet, a laptop or desktop computer.

as commencing or completing a digital speci in-shed. WoolQ then automatically syncs when users are back online, updating the data in the portal.

The functionality within WoolQ will be extensive. Some of the things you will be able to do on WoolQ include:

- Monitor your inventory
- See all your data at a glance
- Track wool price movements
- Complete and submit a speci
- Connect with the wool industry.

Once launched, there will be many features, including:

1. National Wool Industry Online Network & Forum

This will be an online registry and industry discussion forum, that will enable participants to build a rich profile of their business and to network with other wool industry groups and individuals.

2. Central Repository of Woolgrower Data

This rich store of data will capture in-shed wool classer data (which will be able to be captured electronically via a digital speci form instead of the current paper speci), as well as wool test results, plus current and historical pricing and sales data.

3. Virtual Selling Tool, or 'Ready Reckoner'

This will be a user-friendly, online evaluation tool for woolgrowers, providing them with the ability to gauge the value of their wool and determine the optimum selling approach.

4. Bulletin Board of Buying / Selling Interest

This feature will be added soon after the main July launch of WoolQ. This will be a visible, interactive marketplace open 24/7 that enables the matching of buying and selling interests for the sale and purchase of any tested/marketable wool. By no means will it replace the open-cry auction, but it will provide visibility and matching of buying and selling interests.

A collection of short, easy to follow online tutorials will be available prior to the launch of WoolQ, to help users fully understand the functionality of WoolQ and to maximise the value the portal can deliver to their individual enterprise.

A customer service team will also be on hand to answer calls and emails from WoolQ users as they familiarise themselves with the tool.

MORE INFORMATION

To learn more about the features and benefits of the upcoming WoolQ portal, or to submit a query, log on to www.woolq.com

If you submit a photo that gets published in Readers' Photos, you'll receive an autographed copy of Andrew Chapman's 'Woolsheds'.

This 216-page hardback book is an invaluable historical record of an Australian icon. It is also available to purchase from www.andrewchapmanphotography.com and good bookshops.

READERS' PHOTOS!

Have you got any interesting photos that you'd like to share with other readers of *Beyond the Bale?*

If so, please email the image and a brief description to the editor of *Beyond the Bale* Richard Smith at **richard.smith@wool.com**.

Here are a few photos that we have recently received from readers.

NATURE KNOWS BEST

Lisette Mill of the **Basalt to Bay Landcare Network** on the south-west coast of Victoria (pictured) sent in this photo of a fallen nest, of probably a red wattlebird, that the bird has lined with wool. It appears the wattlebird naturally knows that wool makes the most comfortable and warm interior for its home.





A GENTLE MUSTER HOME

Suma Reid of Pingrup, 210 km north of Albany in Western Australia, sent in this photo of their replacement ewe hoggets (and little lamb!) photographed from the back of Suma's faithful ex-racehorse, Crowne Pilot, who has taken to sheep mustering extremely well. Suma finds that, when time allows, mustering with a horse makes all the animals, and humans, calmer.



BATMAN AND JOKER

Kirsty Twigg from **Pyramid Hill** in **Victoria** sent in this photo of her two-year-old son Max, who after a morning of checking sheep with dad decided the two orphaned lambs they found were tired so he cuddled them to sleep. Now his pet lambs, the duo have been named **Batman and Joker.**







HIGH FLYING WOOL & YOU MAY NOW KISS

12-year-old Kathryn Box from Carboor in Victoria is a keen photographer and took this photo (left) when they were last shearing. Kathryn loves the way the wool fans out over the table – and as this was a particularly high throw, she has called this photo 'High Flying Wool'. Kathryn also sent in the above photo, which she calls 'You May Now Kiss' as it reminds her of a wedding.

AFTER A HARD DAY'S WORK

Lisa McMahon of Anakie, north of Geelong in Victoria, sent in this photo of her daughter Emily's dog, Will, after a hard day's work.



RELAXING IN THE RIVERINA

Jane Carter of 'Billigaboo West' at Narrandera, NSW, sent in this photo of their beautiful Billigaboo Corriedale ewes being a perfect audience as Jane shows them her third novel Prodigal Daughter, set on a sheep station in NSW, that was released in September by Harlequin Books.



WAITING FOR A RIDE

Lisa Davis of 'Bimbadeen' in Coonawarra, South Australia, sent in this photo which she took while heading out to check the stock after her husband recently went to the Royal Adelaide Show. Unfortunately he forgot to tell their pet lambs that they weren't invited, and here they are lined up and ready on the loading ramp just waiting for their transport.



BED IN THE SHED

David Quirk of Jemalong Wool Pty Ltd at Forbes in NSW sent in this photo of one of his clients' kids, asleep after helping out in the shed. The young lad, Braith, is the son of Chris and Alisha Morrison of 'Tarlemara' at Forbes.



TIANA AT KARMALA

Jan Lowing of Karmala Merino and Working Kelpie studs at Nobby on the Darling Downs of Queensland sent in this photo of her grand-daughter Tiana helping at shearing time.



AWI GROWER NETWORKS

PRODUCERS LEARNING FROM PRODUCERS

- AWI grower networks are present in each wool-growing state.
- They aim to increase the long-term productivity and profitability of producers.
- All woolgrowers are encouraged to get involved.



AWI-supported extension networks provide opportunities for producers to get involved in practical programs that focus on making positive changes to on-farm production and management practices.

Be involved as little or as much as you like: sign up for newsletters about local issues, attend local field days and workshops.

The networks are fundamental to:

- the spread of new ideas
- · continuing education
- the adoption of best practice
- giving AWI a direct link to what is happening on-ground.

Ongoing strong partnerships with state departments of agriculture, private providers and woolgrowers help ensure the grower networks continue to generate increased participation and reported benefits by woolgrowers.

To learn more about the networks and how to get involved, refer to the website of your state network, or contact the network coordinator below.





NEW SOUTH WALES

Coordinator: Megan Rogers 0427 459 891 admin@sheepconnectnsw.com.au www.sheepconnectnsw.com.au

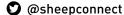
- @sheepconnectnsw
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