

Beyond the bale

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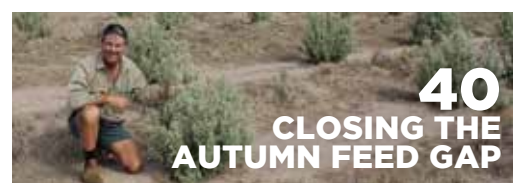
A MODEL COUNTRY GIRL ATTY MITCHELL



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Beyond the bale

www.wool.com/btb

EDITOR

Richard Smith
E richard.smith@wool.com

CONTRIBUTING WRITER

Lisa Griplas
E lisa.griplas@wool.com

Australian Wool Innovation Limited

A L6, 68 Harrington St, The Rocks,
Sydney NSW 2000
GPO Box 4177, Sydney NSW 2001
P 02 8295 3100
E info@wool.com W wool.com
AWI Helpline 1800 070 099

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Beyond the Bale is available free.
To subscribe contact AWI
P 02 8295 3100 E info@wool.com

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Ben Baker, Pulse Hub Pty Ltd
P 0429 699 553
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FRONT COVER

International fashion model Atty Mitchell is now based overseas, but a large part of her heart lies at her grandmother's wool-growing property at Bookham in NSW. See page 6.

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Bottom left image: Dermot Conlan

Page 2 top left image credit: Chris Hepburn



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- Sheep Production
- Woolgrower Services
- Processing Innovation & Education Extension
- Business Services

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View *Beyond the Bale* online with image galleries and video at <http://beyondthebale.wool.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

A STRONG START TO 2018

The increasingly strong prices for Australian wool that we saw in 2017 have continued this year, with the EMI well above 1,700 cents so far during 2018. These robust prices are fundamentally a result of a strong and consistent demand for our fibre. AWI's marketing in key northern hemisphere markets has been successfully cementing Australian wool as a premium fibre for which consumers are willing to pay a premium price. However, I believe that Merino is a \$20-fibre, because cashmere is a \$120-fibre and the fibre characteristics of cashmere and wool are precisely the same. While cashmere is slightly finer on average, Australia has Merino wools that are as fine as cashmere and have a better length.

Hear more of my thoughts on the wool market and how sustainable it is, in episode 25 of The Yarn. The Yarn is AWI's free podcast, launched 18 months ago, which has gone from strength to strength with 30 episodes released and a growing audience of Australian woolgrowers listening in on their smartphone or computer. All episodes of The Yarn are available at www.wool.com/podcast. I recommend that you take a listen.

WILD DOG COORDINATORS

I am pleased to announce that AWI has extended the funding for a wild dog coordinator in north-east NSW for a further three years. Dave Worsley, who has been the very successful coordinator since May 2015 will continue in the role, helping woolgrowers and other key stakeholders to work together to lessen the impact of livestock predation by wild dogs in the area. As well as the north-east NSW position, AWI also funds wild dog coordinators operating in western NSW, Victoria, Queensland and Western Australia. Wild dog coordinators facilitate collaboration between landholders (in new or existing wild dog management groups) and with other key stakeholders, locally and across shires; they also help coordinate on-ground wild dog control activities.

'BREED MORE MERINO EWES'

AWI continues to proudly support the Australian Association of Stud Merino Breeders' (AASMB) Breed More Merino Ewes campaign launched in September 2016. The campaign acknowledges the Merino ewe as the backbone of the Australian sheep industry. Merinos are achieving very profitable results for producers compared to other breeds and enterprises across Australia in a range of production systems and rainfall zones. By increasing Merino breeding ewe numbers in their enterprise mix, producers can take advantage of the enormous global fibre and food opportunities in the future.

WOOLQ: E-SPECI RELEASED IN MARCH

The first piece of WoolQ functionality, the eSpeci (an alternative to the current paper speci), is being made available this month. The developers of the WoolQ online portal have completed trials in a number of shearing sheds across the country, and the intuitive and user-friendly nature of the tool has been proven. As a result, anyone who registers with WoolQ can start using the eSpeci tool as soon as it launches this month. I therefore strongly encourage woolgrowers to register with WoolQ today – at www.woolq.com. Not only will you be able to use the eSpeci once it is launched, but you will be kept updated on further WoolQ functionality when it is released. See page 65 for further details.

AWI GRADUATE TRAINING PROGRAM

Joining AWI this month as part of an 18-month program are three Australian graduates selected to take part in the 2018 AWI Graduate Training Program. The calibre of candidates we received for this inaugural year of this program was outstanding. The program will provide the successful applicants with a thorough understanding of the wool supply chain from fibre to fashion. AWI is seeking applications next month for the 2019 program. I encourage graduates from a broad cross section of disciplines who have a background in or connection with the Australian wool industry to apply. See page 46 for further details.

RAMPING UP REPRO WORKSHOP

Inspection and preparation of your ram team is a critical part of the farm calendar to avoid unnecessary loss of production due to poor reproductive performance. AWI has therefore started rolling out a new hands-on workshop, held on-farm, to help ensure that woolgrowers get the most from their rams. Developed by AWI in partnership with Zoetis Australia, the RAMPing Up Repro workshop aims to build producers' confidence in managing their rams more effectively before and during joining. See page 38 for further details. The workshop complements AWI's popular Lifetime Ewe Management course which helps woolgrowers maximise the reproduction efficiency of their breeding ewes.

MERINO LIFETIME PRODUCTIVITY FIELD DAYS

The Balmoral Field Day at Harrow in Victoria was held last month, giving woolgrowers an opportunity to inspect first-hand the progeny from the diverse range of sires entered at the site and grab a copy of the latest site results – see page 50 for details. This month the MerinoLink site at Temora in NSW and the Pingelly site in WA are holding field days on 16 and 28 March respectively. On 11 July, the Macquarie site located at Trangie in NSW will host its first project field day. Sites will have between 15 and 30 sire groups on display along 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. Head to the AWI website at www.wool.com/MLP for more information.

WOOLPOLL

2018 PLANNING UNDER WAY



WoolPoll Panel Chair
Sydney Lawrie, with his
children Rafael and Xavier.

KEY FACTS

- WoolPoll is woolgrowers' opportunity to have a say on the Australian wool industry's collective investment in research, development and marketing.
- An 11-member independent WoolPoll Panel has been formed to oversee the conduct of the poll.
- WoolPoll and the independent review of AWI's performance are touchstones that drive and demonstrate AWI's accountability to woolgrowers.

As we move into 2018, we enter a WoolPoll year, a cornerstone of Australia's wool industry. It is that time when AWI asks woolgrowers what percentage of their wool income they would like to invest in research, development and marketing (RD&M) for their industry.

The levy rate that receives the highest number of votes will be paid by all woolgrowers for the next three years (2019-2022).

In delivering WoolPoll, AWI's focus is to:

1. meet the statutory requirements for conducting WoolPoll, as outlined in the Federal government regulations; and
2. maximise the number of levy payers who vote, ensuring a result that is representative of industry views.

2018 WOOLPOLL PANEL MEMBERS

Sydney Lawrie (SA), Panel Chair

Kristen Frost (NSW)

John Hassell (WA)

Ed Storey (NSW)

Candice Roberts (Qld)

Steve Harrison (Vic)

Rob Ingram (NSW)

Brenton Lush (SA)

Richard Keniry (NSW)

Joann Wilkie, Department of Agriculture and Water Resources

Jock Laurie, AWI Board member

ABOUT WOOLPOLL

WHAT IS WOOLPOLL?

WoolPoll is a poll of eligible wool levy payers, conducted every three years, to determine the levy rate paid to AWI for industry research, development and marketing. Currently the levy rate is 2% (of the sale price woolgrowers receive for their shorn greasy wool).

At WoolPoll, eligible woolgrowers are asked to consider five levy rate options.

It gives woolgrowers a say in the future of their industry by voting for the levy rate to apply for the next three years (2019/20 – 2021/22).

For each \$100 of levy paid over the past three years, eligible woolgrowers are entitled to one vote.

WHEN IS WOOLPOLL?

September: Eligible levy payers will receive their voting papers, a Voter Information Kit (containing details about how AWI proposes to invest the levy funds at each of the five levy rate options and AWI's recommendation) and a summary of the independent review of AWI's performance (2015-18).

17 September: Voting opens. Voting will be by mail, fax or online.

2 November: Voting closes.

23 November: The WoolPoll result will be announced at AWI's Annual General Meeting. The levy rate takes effect from 1 July 2019.



MORE INFORMATION

Emma Gittoes, AWI Corporate Affairs Manager
emma.gittoes@wool.com

APPOINTMENT OF THE WOOLPOLL PANEL

To make sure AWI delivers WoolPoll in line with the regulations, AWI is required to establish an independent panel of industry representatives – the WoolPoll Panel. The Panel examines and assesses the poll process and voting documentation, as appropriate, and plays a critical role in encouraging woolgrowers to vote.

In November 2017, AWI appointed South Australian woolgrower Sydney Lawrie to chair the independent 2018 WoolPoll Panel. Together with his wife Therese and young family, Sydney owns and manages a sheep and cropping enterprise at Tumby Bay on South Australia's Eyre Peninsula. His farming operation includes about 4,000 sheep and 7,000 acres of wheat, canola, barley, peas and oats.

"Based on the advice of the 2015 WoolPoll Panel and the AWI Board, I asked grower representative groups to put forward nominees that would reflect the diversity of the Australian wool industry: male and female nominees; young growers and the not-so-young; and importantly, those who are actively engaged in industry networks," Mr Lawrie said.

With each WoolPoll to date, AWI has improved the delivery of the Poll, ensuring robust processes and transparency. Towards the end of 2017, AWI proposed the establishment of an independent selection committee for the first time, to assist Mr Lawrie in appointing members to the 2018 WoolPoll Panel from the list of nominees.


Along with Mr Lawrie, the Selection Committee comprised Richard Halliday (WoolProducers Australia representative on AWI's Woolgrower Industry Consultative Committee), Joann Wilkie from the Australian Government, and Jock Laurie (AWI Director).

"There was a very strong field of nominees from across industry, making for some considerable deliberations by the Selection Committee," explained Mr Lawrie. "While it was difficult to whittle down, I'm confident that the collective skillset of the eight growers we unanimously selected (see below left) will represent the wide range of woolgrower interests and confidently perform the important tasks required of the WoolPoll Panel 2018."

Representatives from the Australian Government and the AWI Board are also included in the eleven-member Panel.

INDEPENDENT REVIEW OF AWI'S PERFORMANCE

Prior to WoolPoll, AWI must undertake an independent review to assess its performance that can help woolgrowers make an informed decision when voting on the levy rate.

The next independent review of performance will assess the period 1 July 2015 to 30 June 2018 and the summary report will be provided to eligible levy payers with their WoolPoll voting documents. 

AGM MAILING

During the lead up to the **2017 AWI AGM in November 2017**, reports emerged of persons claiming that they did not receive their voting papers in time to vote in the 2017 AGM. This article reports on the results of an AWI investigation into the issue.

When reports emerged of persons claiming they had not received their voting papers, AWI took immediate action to encourage affected persons to contact AWI's share registry (Link Market Services) or AWI itself to get replacement voting papers sent to them where possible. Some AWI shareholders were able to do this. On 8 November, AWI also sent an email message to AWI shareholders reminding them that they could lodge their vote online.

After the AGM, AWI decided to investigate the circumstances of the AGM mailout in 2017. As part of the investigation some industry bodies, after liaising with their networks, reported to AWI on persons affected. AWI also placed advertisements in rural newspapers nationally on two occasions in December inviting persons affected to contact AWI.

The total number of responses from these sources was 83. To put things in perspective, it is important to note that the AGM mailout comprised *posting hard copies* to 18,618 AWI shareholders and *emailing* to an additional 5,460 AWI shareholders. The 83 responses have all been individually investigated. Initially AWI determined whether or not the persons are indeed AWI shareholders and their notified preferences for receiving communications from AWI (*hard copy posting or email*). Link Market Services then followed up with phone calls to all the persons for whom AWI has a phone contact, and letters to persons where AWI does not have a phone contact.

Out of 83 responses, 63 had notified email as their preference for communications; 7 were not AWI shareholders; and only 13 had notified hard copy posting as their preference for communications. 15 of them had actually voted (online) after liaising with AWI in the final stages of availability for proxy voting. See below for a summary:

Emails delivered and opened	16
Emails delivered but unopened	18
Emails not delivered - temporary error (e.g. mail sent to junk; other set-up problem)	6
Emails not delivered - permanent error (viz. email address no longer valid)	23
Hard copy posted	13
Not an AWI shareholder	7
Total responses to AWI	83

CONCLUSIONS AND ACTIONS

The results of the investigation point to there being no significant failure in the *hard copy posting*. Nonetheless, AWI will assess whether a longer mail period than the present 3.5 weeks can be brought in for future AWI AGMs.


The more important issue identified in the investigation was with persons who had nominated *email* as their preferred means of communication. AWI will correspond with all AWI shareholders regarding their preferences. AWI has a principally rural and geographically diverse shareholder base and the advantages of email correspondence are self-evident. AWI shareholders are encouraged to notify the share registry of any changes in their email address, the same way as they would for a change of physical mailing address.

Further information about how to update contact details is available at www.wool.com/share-registry. AWI shareholders will need their Shareholder Reference Number to access this facility for changing their details. They can also call Link Market Services toll free on 1800 113 373 to discuss their circumstances.

Alternatively, AWI shareholders (and other wool levy payers) can complete the 'change of contact details' section on the mailing cover sheet that accompanies the hard copy of *Beyond the Bale*, and return the whole cover sheet to AWI as indicated.

There were some other learnings from the AGM process on this occasion. Some AWI shareholders had difficulty with accessing the online voting portal operated by Link Market Services, and AWI will work with the share registry to make the portal as intuitive as possible.

Some AWI shareholders expressed frustration in their dealings with the share registry when endeavouring to change an aspect of their contact or mailing arrangements. While security of shareholder information is the prime consideration, AWI believes that some flexibility may be available for dealings given that shares in AWI do not have a monetary value. AWI will liaise with the share registry on this.

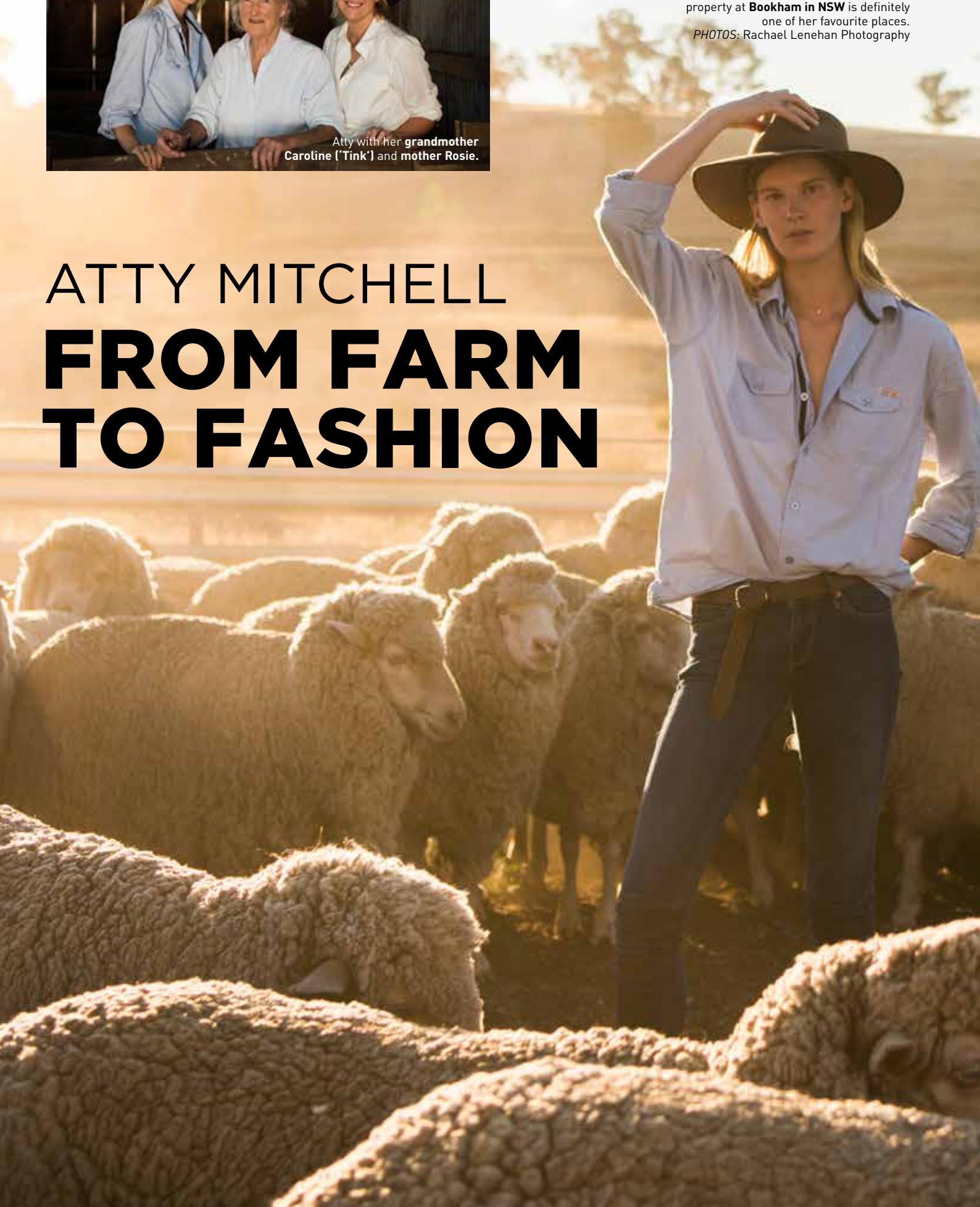
AWI encourages all wool levy payers to actively become an AWI shareholder and therefore be able to exercise their democratic vote at the AGM. Refer to www.wool.com/shareholders for further information on how to become an AWI shareholder. 



Atty with her **grandmother** Caroline ('Tink') and **mother** Rosie.

International fashion model Atty Mitchell has been photographed in glamorous locations across the world, but she says her grandmother's wool-growing property at **Bookham in NSW** is definitely one of her favourite places.
PHOTOS: Rachael Lenehan Photography

ATTY MITCHELL **FROM FARM TO FASHION**





There are not many international fashion models who would feel at home doing a day's hard work with sheep in the yards, but for model Atty Mitchell it's a way of life she grew up with on her grandmother's wool-growing property in NSW.

continues to serve as an inspiration for her high-achieving granddaughter.

"Tink is an amazing woman – she still runs the property herself, is very hands-on and really loves her farm," Atty said. "She has taught me so much, in the yards and around the farm. I used to ride horses when I was younger and she helped me a lot with that – in fact she only gave up horse riding herself a few years ago."

Caroline is the fourth generation of the family on the land, being the great granddaughter of Charles Mills of Uardry – so Merinos definitely run through her veins.

"I have been at 'Kingslea' for nearly 50 years now and currently run 3,500 18-19 micron sheep – we've used Grogansworth rams for more than 30 years, with great success," Caroline said.

"Over the years we have worked towards improving not only the wool quality and fleece weight but also the conformation of the sheep. They are now a dual purpose sheep. We like progressing – there is no point going up and down on the one spot.

"I love wool-growing. Well, it's a lifestyle isn't it? Living on the land is more competitive than it used to be and requires a lot more work and dedication. But wool is such a beautiful, natural and versatile product – and it's the only life I have ever known."

And what does Caroline think of her granddaughter's current career?

"I think it's fantastic," she says. "It's taken her so many places and taught her so much. Atty gets a lot out of it and I'm so proud of her. Of course, most of all, I love when she gets back to Kingslea and into the sheep yards!"



As one of the current faces of French luxury retailer Louis Vuitton, the life of fashion model Atty Mitchell seems worlds away from her wool-growing roots.

Originally from the Southern Highlands of NSW, Atty spent her weekends and school holidays in Bookham, two hours west in the Yass Valley, on 'Kingslea', the Merino wool-growing property of her grandmother Caroline Spittle, who is called Tink by Atty.

Atty was scouted at the Robertson Show near her hometown, and since finishing high school in 2015, she has spent most of her time abroad, most recently modeling Louis Vuitton apparel in fashion magazines and shows from Paris to Kyoto.

"It's been incredible," said Atty on a recent trip home. "This past year I have seen more of the world than in the rest of my entire life, and especially places that we wouldn't normally go, like Palm Springs, Miami, Tokyo. It's been amazing."

Despite the opportunities afforded her, Atty loves nothing more than coming home to Australia, and especially back to her grandmother's farm.

"Being overseas, I really miss my friends and my family, and so to come home and go to Tink's and spend time on her farm is the best feeling in the world," she said.

"I've been visiting the farm since I was born, and from a young age my mum and Tink taught me how to do the farm work, from mustering to drenching and tagging. I've always helped out around the farm and I still do so whenever I get to visit.

"I really enjoy putting on my 'Blunnies', workshirts and jeans, doing some 'proper' hard work. That's not to say that modeling isn't hard work, but I really enjoy getting stuck in and getting my hands dirty.

"I love the thrill of my modeling career, but I'm lucky that I have the farm to visit where I can relax with Tink and reset to a more grounded pace of life.

"The farm has been a big part of my life and I've always envisaged that I will eventually head back to living on the land."

Atty's grandmother, who didn't let being in her eighties stop her from winning the second shearing of the current Australian National Field Days Wether Trial in 2017,



Atty – at home in the woolshed and yards as she is on the fashion runway. PHOTOS: Rachael Lenehan Photography; top: Catwalking/Getty



The opening spread of a six-page feature on **Atty Mitchell** in the latest edition of **The Woolmark Company's WOOL magazine** for consumers, which focuses on women of wool. PHOTO: Georges Antoni



Atty and her **grandmother** at home on the farm. PHOTOS: Rachael Lenehan Photography



The Duchess of Cambridge talking with designer **Karen Walker** who collaborated with craftspeople from the Cook Islands on the design (left) made from Woolmark -certified wool flannel – at the Commonwealth Fashion Exchange reception at Buckingham Palace on 19 February. *PHOTO: Eddie Mulholland/Getty Images.*

COMMONWEALTH CHAMPIONS WOOL IN SUSTAINABLE FASHION

Wool has been showcased as the green thread in sustainable fashion at a special event held at Buckingham Palace as part of a new initiative called the Commonwealth Fashion Exchange.

The Duchess of Cambridge, Kate Middleton, has lent her support to a new initiative that highlights the sustainability and artisanal fashion skills within the fashion industries of Commonwealth countries.

As part of the Commonwealth Fashion Exchange, selected designers representing all 53 Commonwealth member countries presented their specially created 'looks' at a unique reception at Buckingham Palace during London Fashion Week in February.

Hosted on the behalf of the Queen by the Duchess of Cambridge – one of the UK's most influential female style icons – along with other royalty including Sophie the Countess of Wessex and attended by leaders in the fashion and sustainability industries, the event showcased wool as a natural, renewable and biodegradable fibre.

The designers included major names Burberry representing the UK, Australian label KitX, and Karen Walker representing New Zealand.

The designs were also given a public exhibition at Australia House and then moved on to other locations in London in the run up to the Commonwealth Heads of Government Summit in April.

The Commonwealth Fashion Exchange was

developed by brand consultancy Eco-Age, headed by Livia Firth, in partnership with AWI's marketing subsidiary The Woolmark Company and Swarovski. MATCHESFASHION.COM will launch an edited collection of the designers' outfits in September, giving consumers worldwide the opportunity to buy these unique wool garments.

The Commonwealth Fashion Exchange is particularly timely as a global wave of interest in handmade products and authentic luxury causes a reassessment of the artisan fashion trades.

"As a company that markets a premium natural fibre, AWI is very proud to be supporting this important project," said AWI CEO Stuart McCullough. "Australian wool has been cultivated by generations of Australian woolgrowers who care for their sheep and work tirelessly to protect and conserve the extensive pastures on which their flocks graze.

"It is important that AWI is active in the sustainability arena to clearly demonstrate the eco-credentials of wool. By supporting this global initiative, AWI is highlighting Merino wool as a natural, renewable and biodegradable fibre to a cross section of the world's most influential designers –

and helping secure validity for Merino's eco-argument from respected experts and ambassadors in the field of sustainability.

"Wool continues to be an important premium ingredient in the global fashion industry. It is therefore exciting to work with Livia Firth and Eco-Age to see their principles of sustainable excellence applied across the entire collections in this initiative and pleasing to see so much of our natural fibre, wool, being used."

Marrying ethics with aesthetics, Eco-Age is a globally respected brand consultancy working at the cutting edge of sustainability. Its founder and Creative Director is Livia Firth, wife of actor Colin Firth, who is a UN Leader of Change and has been recognised with the UN Fashion 4 Development Award.

"This is a project rich in partnerships and creative co-design," she said. "As someone who is passionate about joining the threads of global fashion and creating real partnerships you can imagine how exciting it is for us to be involved. The majority of the population of the Commonwealth is under the age of 30 so we needed to find something that spoke to the millennials, the young people." **B**

MORE INFORMATION
[www.eco-age.com/
commonwealth-fashion-exchange](http://www.eco-age.com/commonwealth-fashion-exchange)

Stephen Jabaut on a return visit to Lake George, New York State.

“WOOL SAVED MY LIFE”



Stephen Jabaut grew up in New York State’s Adirondack Park: a woodsman’s playground complete with mountains to hike, horses to ride, and lakes to sail – and in winter, it can be perfect for cross country skiing. However, it can also have its dangers, which Stephen found out on a recent ski trip. Luckily, he was wearing wool – and it saved his life. Read on for Stephen’s account of what happened.

It was a morning like any other. Just your typical Upstate New York polar vortex bringing the air temperature somewhere well below zero. It was however, a gorgeous day with blue skies and there was fresh snow on the ground.

I decided to go for a jaunt on cross country skis through our family’s backwoods out to the lake for some crisp air and exercise. Because it was so cold, I layered up. I put on some Merino wool knee socks with long underwear and topped with a wool sweater, jacket and cap to keep me cozy.

I made my way through the frozen swamp that leads to the brook and by the time I made it to the mouth of the winding estuary, I was feeling toasty from the work out and took a moment to enjoy the vista of the expansive mountain lake before me. Summer homes, long abandoned since the coming of the cold, dotted the shores of Dunham’s Bay as I entered Lake George.

Crack...

I was 100 feet from shore when I heard a noise, looked down and saw black water where white ice once was holding me. I immediately knew that I was going in. I was able to catch myself just below arm level and keep my head from going under water. Every time I tried to pull myself from the freezing waters, the ice broke beneath my body.

OK, breathe, focus, what do I do? I knew I had to lose my skis and poles but by the time I had my two poles and left ski and

boot off, my fingers had lost all dexterity and so I had to leave my last ski on.

I spotted the nearest dock, and in what felt like an eternity I did a series of pushups out of the water to break a path to shore – each time pulling myself from the water, feeling my muscles become more fatigued and useless, and each time breaking through submerging and becoming colder. But I had to breathe, I had to keep it together. Lose it and I’d be dead.

By the time I made it to the dock, the right side of my body was almost completely numb. Using the last (and I’m talking last) bit of strength in my body, I slung my deadened right arm around the dock post and leveraged my left upwards and somehow managed to pull most of my body out of the water.

So there I was, standing with one boot on, on an abandoned dock with no one around for miles.

I am out of the water, but I am not out of the woods. If I could not get warm, or get help, my organ systems might begin to fail. Luckily for me, I managed to find a summer house that I could punch my way into – cutting my hand wide open in the process – but there was no gas in the stove, the water pipes were frozen, and my fingers were too cold to light a fire.

And that’s when I saw it. Jammed under a desk was an old cellphone that looked like it came out of a 1970s office. This was it. Life or Death. I picked up the phone. A dial tone! I called 911, and even though the phone was not in service, you can

always call in an emergency. Always.

The paramedics later found me shivering violently, wrapped in a white quilt I’d found, and covered in my own blood. It was very apparent that this was a serious situation, and they shredded the clothes from my body and put me in a sort of incubator suit with heat pads on my fingers and toes.

Even after making it to the hospital and being put in warm blankets with hot air coming in, I did not stop shivering for several hours, but it looked like I was going to be OK. The doctor came in and spoke with me.

I had never really taken wool versus cotton into consideration before, but this doctor let me know:

“Wool keeps you warm even when it gets wet. If you were wearing cotton, it would have frozen and then you would have had sheets of ice stuck to your body. The wool helped save your life.”

I ended up losing all sensation in my hands for several months, but considering how it could have gone, I count myself as very lucky to have chosen wool that day. I continue to wear wool today. If it saved my life, there is a chance it could save someone else’s too. **B**

MORE INFORMATION

For a full account of Stephen’s escapade, head to the website of US brand Minus33 (Stephen was wearing Minus33 Merino wool clothing) at www.minus33.com/blog

WOOL A HOT TOPIC FOR SPORTS AND OUTDOOR BRANDS

Performance apparel is one of the fastest-growing sectors in the global textile industry, with much of this demand attributed to an emergence of new technologies, new sporting trends and a shift in people's attitude towards health and fitness.

With the sports and outdoor market continuing to play a large and increasingly important part in AWI's product development and marketing strategy, AWI once again exhibited at this year's ISPO trade show – the world's largest trade show targeting activewear and sports apparel. It was the biggest one yet, with ISPO welcoming 2,801 exhibitors and more than 84,000 visitors from 120 countries to the trade show in Munich, Germany.

Following the success of previous shows, AWI was instrumental in organising the 'Wool Lounge' – the fair's epicenter for all things wool and featuring leading brands including H. Dawson, Südwole Group, Shepherd, Italfil, Lavalan, Australian, Diyang, Marbäck Tricot, Engel, Utenos, Xinao, Schoeller, Blum Textil, Davifil and of course The Woolmark Company.

At The Woolmark Company's stand, the latest innovations co-developed by AWI's in-house technical team were on display, including wool footwear, seamless apparel and wool filling – which provides a natural alternative to traditional synthetic wadding. Also on show was the latest edition of The Wool Lab Sport, featuring a collection of the world's best technical fabrics and yarns.

"Our stand recorded the most number of visitors compared to previous years," said AWI sports/outdoor advisor Lars Ulvesund. "While many outdoor brands already have wool in their collection, we have seen a number of brands introduce wool into their high-intensity categories, with pieces suited towards cycling and running. We are also experiencing a higher number of lightweight Merino wool pieces being introduced for Spring/Summer collections.

"Many of the brands I spoke with are keen to focus on new developments to increase the versatility of their wool ranges, and the traceability of garments continues to be in high demand."

WOOLMARK PERFORMANCE CHALLENGE

AWI also took the opportunity of ISPO to launch a new competition called the Woolmark Performance Challenge, in partnership with leading sports brand adidas. The competition focuses on the development of innovative, forward-thinking products for the performance industry and in its first year is open to tertiary students in Europe and North America.

"This new competition is unique in that it offers the winner hands-on experience with a leading performance brand," said AWI CEO Stuart McCullough. "New talent is the future of our business and the industry, and AWI actively believes in education and fostering the development of the next generation of designers and change-makers.

"What makes this competition even more exciting is the focus on innovation. We have the utmost faith that all submissions will highlight the innovative nature of Merino wool, creating products which will not only take the fibre, but also the larger performance industry, into uncharted territory."

ERIN SNOW WOOLMARK SKIWEAR COLLECTION

For the first time, AWI exhibited at the USA's largest outdoor trade show, Outdoor Retailer, held in Denver, Colorado. Showcasing the latest edition of The Wool Lab Sport, along with the technical innovations in wool, the show also provided an opportunity to reach out to a new audience as AWI hosted a Wool Education Course to present the technical abilities of the fibre.



The stand of AWI's marketing arm, The Woolmark Company, at the ISPO trade show attracted record numbers and also played host to a press conference announcing the Woolmark Performance Challenge.

International media and retail buyers were also invited to view performance and skiwear designer ERIN SNOW's latest capsule collection at a special preview event. The brand has partnered with AWI to develop a 12-piece skiwear collection, comprising pants, mid-layers and outerwear, and is made using Australian Merino wool.

"The hallmark of ski apparel is wool; the incredibly warm and natural fibre has outfitted skiers, climbers and outdoor enthusiasts for generations," said designer Erin Isakov. "Replaced by synthetics in the 1970s, ERIN SNOW was one of the sport brands to pioneer the return of performance wool to ski fashion over ten years ago. Collaboration with The Woolmark Company on a complete sport capsule collection for Fall/Winter 18/19 is exciting and very fitting."

Designed to invoke the elegance and glamour of vintage sport style, while fused with the performance benefits of Merino wool, the collection provides winter enthusiasts with an innovative capsule for cold-weather performance.

"Skiwear holds a special connection with Merino wool, and one which will forever be connected by the fibre's most well-known benefit: warmth," explained AWI CEO Stuart McCullough. "Yet wool skiwear has come a long way since the bulky sweater of the 1970s, with Merino wool emerging as the ultimate performance fibre for luxury activewear."

"Our partnership with ERIN SNOW is a natural fit, with the two brands at the forefront of technical innovation and cutting-edge apparel. In addition, the eco-credentials of Merino wool – a natural, renewable and biodegradable fibre – perfectly align to the design philosophy of ERIN SNOW."

MORE INFORMATION

Hear more about AWI at ISPO in Episode 29 of AWI's The Yarn podcast at www.wool.com/podcast



AWI has partnered with **skiwear label ERIN SNOW** to release a Merino wool blend collection, unveiled at the Outdoor Retailer trade show in Colorado.



Australia's Jarryd Hughes (middle) on the way to getting the silver medal in the men's snowboard cross big final at the **2018 Winter Olympic Games**. PHOTO: Loic Venance/AFP/Getty Images

MERINO GEAR IN KOREA

At the Winter Olympics in South Korea, **Australian Olympic athletes were wearing Merino wool base-layers and socks** supplied by Australian ski and outdoor brand XTM.

The XTM Performance brand was established in 1999, however its alliance with the Australian Winter Olympic team goes back a lot further than that. XTM owner Pete Forras' aunt, Judy Forras, competed at the Olympic Games at Innsbruck in 1964.

By the age of 14, with a rich winter sports background in his blood, Pete decided he wanted to follow in his aunt's footsteps and after 10 years of hard work his dream became a reality at the Calgary Games in 1988.

After his skiing career ended, but reluctant to leave the ski scene, in 1999 Pete started the XTM Performance brand along with two close friends Bill Dalton and Gary Rea, with the goal to design world class ski and snowboard wear. Within a few years XTM had become one of the biggest skiwear brands in the Southern Hemisphere.

In 2004, Pete jumped at an opportunity to supply the whole Australian Winter Olympic team with XTM gloves. Since then, the XTM Australian Olympic range has grown considerably.

At the PyeongChang Winter Olympic games held last month in Korea, the Australian Winter Olympic team wore a Merino base-layer set of top and pants (and, in case

of extreme cold, a full Merino one-piece Woolzy), a Merino neck warmer, and three types of Merino socks.

Unlike the summer games, the winter athletes must deal with high altitudes, volatile winds and extreme cold. This mix can have major effects on the body. They can be standing static in extreme cold for long periods and then, all of a sudden, it's go time and they need to be ready. There is not much time to adjust, so having a fabric that can react as quickly as them in cold wet conditions is crucial.

XTM's Woolmark-certified Merino range is now the company's number one category, selling in more than 30 countries across the world.

XTM has recently been playing with a new concept called MERINOLite. Made from 50% Merino and 50% coarse wool, XTM says it is super lightweight, highly breathable, thermo regulating, extremely adaptable and 100% Australian.

This is something that XTM sees as the future of the brand. It has already had some great success using it in outerwear, mid-layers and gloves, but are also looking at putting it in footwear and some other applications that XTM anticipates will be coming to market over the next few years. **B**

P.E NATION

DELIVERS MERINO MENSWEAR COLLECTION

Australian lifestyle label P.E Nation has unveiled its first foray into menswear, including wool and wool-rich pieces, developed in partnership with AWI.

Australian sports and lifestyle brand P.E Nation – which has taken the world by storm in the short time since unveiling its first womenswear line – has launched its first menswear collection, available for purchase worldwide.

AWI's marketing subsidiary The Woolmark Company formed a relationship with P.E Nation last year during the Guest Nation program at the Pitti Uomo menswear trade show in Florence. As part of the program, The Woolmark Company showcased seven of Australia's most exciting, emerging fashion designers, including P.E Nation, who presented collections using Australian Merino wool, highlighting the versatility of the fibre and its suitability for all climates.

P.E Nation Co-Founder and Creative Director Pip Edwards said the brand's relationship with The Woolmark Company had enabled them to visit leading Italian mills and source innovative wool fabrics during the trip to Italy.

"In addition, we were able to show as part of Guest Nation at Pitti Uomo, which was pretty surreal given it's the biggest menswear trade fair in the world," she said. "We are so thrilled to have the support of such an established and knowledgeable brand."

As a result, P.E Nation developed its first menswear collection – comprising leggings, sweatpants, tank tops, T-shirts and shorts –

using technical Merino wool and wool blend fabrics and yarns to offer a selection of sophisticated performance pieces.

For Pip Edwards, the expansion into menswear was a natural progression of the brand's existing offering.

"We didn't intend for P.E Nation to only be for women," she said. "It's a brand with roots anchored in menswear. The desire to deliver to men what we deliver to women – effortless, comfortable, functional, everyday wear – this has always been our vision. From running to boxing to spin and everything in between, P.E Nation unites comfort and style for a fresh take on men's active and athleisure-wear.

"One additional feature to the collection is its use of Merino wool as part of a partnership with The Woolmark Company. Not only does Merino wool promise premium comfort and quality, it also acts as a thermal temperature control which cleverly works to keep you cool in summer and warm in winter."

P.E Nation's partnership with The Woolmark Company further cements Merino wool's position as a technical performance fibre in one of the fastest-growing apparel sectors. **B**

MORE INFORMATION

P.E Nation's wool menswear pieces are now available at www.pe-nation.com



A full wool look from P.E Nation's inaugural menswear collection.



Pip Edwards and Claire Tregoning of P.E Nation, with their menswear range, during the AWI-supported Guest Nation initiative at the Pitti Uomo trade show in June 2017.

LAST CHANCE TO GET YOUR WOOL IN THE BAGGY GREEN



AWI's Flock to Baggy Green project is scoring strongly, with more than 200 donations of wool sent in by generous woolgrowers from right across Australia to help create the next batch of Baggy Green caps. Woolgrowers still wanting to donate some of their wool have until the end of this month to post it in.



Grant Burge from Tanunda in South Australia has donated an entire bale of wool. PHOTO: Stock Journal

Australian growers have been putting their fibre behind our national game by donating wool to be made into the next batch of Baggy Green caps to be worn by Australian cricketers, as part of AWI's Flock to Baggy Green project. The novel idea is a collaboration between AWI, Cricket Australia and Kookaburra.

Woolgrowers have until 31 March to participate, by sending as little as a staple or as much as a fleece to:

Flock to Baggy Green

c/- AWI
GPO Box 4177, Sydney
NSW 2001

Wool from across Australia is being collected and processed into woven fabric to be donated as finished cloth to Cricket Australia next summer. Every woolgrower who donates wool is to receive a sample of the finished woven green fabric as a keepsake to place in their woolshed, office or local cricket club.

The Flock to Baggy Green project is the initiative of Marius Cuming and Stephen Feighan from AWI who have been delighted with the strong response.

"The generosity is wonderful. We've had donations of wool from prize rams and lots of envelopes and bags sent to AWI. It just shows the love people have for both cricket and the wool industry. All wool and any amount is most welcome," Marius said.

Barossa woolgrower Grant Burge from Tanunda in South Australia is one of the

donors and is worth a special mention given he has gone way beyond the call by donating an entire bale of wool! Grant has pledged a bale from his flock of 8,000 Merinos at the next six-monthly shearing. Needless to say, he is an avid cricket fan, who sponsored the South Australian Cricket Association for more than 20 years under his former Grant Burge Wines label.

"Wool is my business and cricket is my passion so I was happy to support it," he said.

Another significant donation comes from the Cox family of Bocoble Merino stud near Mudgee.


The family is donating the fleece from their grand champion ultrafine poll ram and supreme exhibit from the Armidale Show and sale last year. The fleece has great significance because Cameron Cox, a highly talented young cricketer, bred and showed the ewe but was tragically killed fighting a bushfire during a thunderstorm not long after the Canberra event last year.

As a passionate woolgrower and a brilliant cricketer, his passing at just 22 sent shockwaves through the industry and the NSW mid-western community, so much so that the annual cricket match between Mudgee and Gulgong is now named the Cameron Cox Cup.

Cameron and his brother Hayden were 6th or 7th generation woolgrowers in the district and follow a very long line of keen Cox cricketers.

Having wool that Cameron bred on the heads of future Australian cricketers is a fitting legacy of a brilliant life cut so short.

Donors to the project not only will receive a sample of the fabric to which they are contributing, but their location will be shown on a digital map to be launched at www.wool.com/baggygreen. This way, Australian cricket lovers will be able to see exactly where the Baggy Green is grown.

Cricket Australia CEO, James Sutherland, added: "The initiative is also a reminder of the strong link between Australian cricket and rural communities, with regional areas producing some of our most talented past and present players and many more people having a personal connection to cricket, and I am looking forward to hearing the stories of participating woolgrowers over the course of this project." 

MORE INFORMATION

www.wool.com/baggygreen

Hear more about Flock to Baggy Green in Episode 29 of AWI's The Yarn podcast at www.wool.com/podcast 



Wool shorn from the Perth Royal Show 2017 Grand Champion Merino Ram has been sent in by Eungai Stud at Miling in WA for the next batch of Australian Cricket Baggy Green caps.

LUKE HOOKE'S YEAR OF WOOL

Luke Hooke has committed to wear only wool clothing for a whole year in a bid to promote wool clothing to consumers – and promote the Australian wool industry.



Luke Hooke's family background is in wool-growing, but he is now taking a hands-on role in promoting the fibre to consumers by setting an example and wearing only wool apparel for 12 months. He is pictured here wearing a wool shirt by **Wool & Prince** and **R.M.Williams** wool denim jeans. *PHOTO:* Zoe Phillips/NewsPix

Luke Hooke from Melbourne is halfway through a year-long personal project, replacing his cupboard full of cotton and synthetic apparel, to wear only wool or wool blend clothing for 365 days. Since the project began on 1 October last year, there have been no exceptions (apart from shoes and belts). Shirts, pants, suits, jumpers, underwear, socks – they have all been made from wool.

“Setting out I thought it would be quite a tricky task, but wearing wool all the time hasn’t been as difficult as I thought it might be – in fact it’s turned out to be quite an easy habit to get into,” Luke said.

Luke grew up on a wool-growing property at Serpentine in northern Victoria, so he has been around wool his whole life. He now works a professional job in Melbourne, but had a hankering to do something to promote the fibre he loves.

“The project – titled Year of Wool – is about demonstrating the versatility of wool, promoting wool apparel products available at retail and encouraging more people to choose wool,” he said.

“I’ve had some good support from brands that I’ve approached, and I’ve been able to

give them some exposure on the Year of Wool website and social media, which is what the project is about. I want to show consumers that you can wear fantastic and superior wool products all year round.

“There are lots of practical benefits with choosing wool. For instance, due to the fibre’s odour resistance and durability, you tend to wear wool clothing for longer periods, so there is less laundry to do. My favourite product is a Merino wool shirt from Wool & Prince; I get five to six wears out of it before it needs washing – which is pretty good considering how hot it has been this summer – and I’ve needed to iron it only once in two months which is quite incredible.”

Luke said he is delighted with the brands that have contributed clothing towards the project. With six months still to run, brands can still contact Luke if they want to help out. “The Year of Wool has only been possible with the support of the wool fashion and textile industry, including AWI,” Luke added. **B**

MORE INFORMATION
luke@yearofwool.com.au
www.yearofwool.com.au
 Year of Wool is also on Facebook and Instagram.

LUKE'S WILSONS PROM OUTDOOR CLOTHING TEST

Luke recently ventured to Wilsons Promontory National Park, south-east of Melbourne, for a bushwalking and camping trip to test some of the outdoor clothing provided to him for the Year of Wool. The weekend provided mixed weather that gave Luke the opportunity to test out both warm and cool weather outdoor gear.

MINUS33 RIDGE CUFF WOOL BEANIE

100% superfine Merino wool, 18.5 micron, 230 gsm
Luke's verdict: “It surprised me. I don’t usually wear beanies so I was surprised when I found myself slipping this on every time it got chilly, including at 4am when the temperature bottomed out.”

BLUEY MERINO OUTDOOR T-SHIRT

100% Australian superfine Merino wool, 18.3 micron, 160 gsm
Luke's verdict: “Wool can keep you cool and this T-shirt is a great example. It is comfortable and handled the warmer weather really well. It can be worn day after day regardless of use.”

MINUS33 CHOCORUA MIDWEIGHT WOOL CREW

100% superfine Merino wool, 18.5 micron, 230 gsm
Luke's verdict: “Love it. The garment is uber comfortable to wear. It withstood the wind, and the wool naturally repelled the light rain we experienced.”

BLUEY MERINO URBAN BOXER SHORT

100% Australian superfine Merino wool, 18.3 micron, 220 gsm
Luke's verdict: “When you’re wearing them you hardly know they’re there, which is really what you want.”

HUMPHREY LAW GENUINE ARMY SOCK

77% wool, 22% nylon, 1% lycra
Luke's verdict: “Bloody good sock. Who am I to disagree with the choice of the army?” **B**



Luke testing out some wool clothing in the Wilsons Promontory National Park.

WOOL FACTS

WOOL IS NATURALLY ODOUR RESISTANT

Wool garments and textiles are naturally odour resistant due to the fibre's unique properties.

Wool fibres can absorb large quantities of water vapour – twice as much as cotton and thirty times as much as polyester¹ – helping to keep the skin drier and prevent the build-up of sweat, bacteria and unpleasant smells. The unique chemical structure of wool also enables it to absorb and lock away odours which may develop, and only release them on washing.²

WOOL NATURALLY RESISTS BODY ODOUR

Wool has a number of unique moisture management properties that allow it to minimise the effects of body odour².

1. Wool is a hygroscopic fibre, meaning it readily absorbs moisture – up to 35% of its own weight – keeping the skin surface drier and discouraging bacterial growth.
2. Wool absorbs and locks away odours during wear. The wool fibre actively binds odours within the fibre where bacteria do not thrive. As a result, the garment remains fresh for much longer.
3. These odours are then significantly released by wool garments when laundered, with wool garments retaining less odour than cotton and synthetics after washing.

Odour-wearer trials conducted by the CSIRO (see Figure 1 below) show that Merino wool socks were preferred for both lack of odour after wearing, and also for lack of odour after washing, especially when compared to synthetic socks.

Athletes such as mountaineers, who wear clothing for long periods without washing,

report less odour build up with wool apparel than with synthetics.² Merino wool's properties make it ideal for next-to-skin items such as underwear, base-layers, socks or T-shirts. Wool is suited for sports and travel as it can be worn multiple times without laundering and stays fresher for longer.

WEARING WOOL MEANS LESS SWEAT AND LESS BODY ODOUR

Perspiring is a natural way the human body regulates its temperature, especially in response to hot conditions or strenuous exercise. During exercise, our bodies can release one to two litres of moisture per hour.⁴ However, high levels of perspiration lead to liquid sweat which is the driver of body odour.

Sweat itself has no odour, but if it remains on the skin, the humid environment is perfect for bacterial growth, leading to body odour. Wool's natural breathability helps defer the onset of liquid sweating, which keeps the skin drier. Less breathable fabrics such as many synthetics will cause the wearer's skin to become moist, encouraging bacterial growth and odour development.

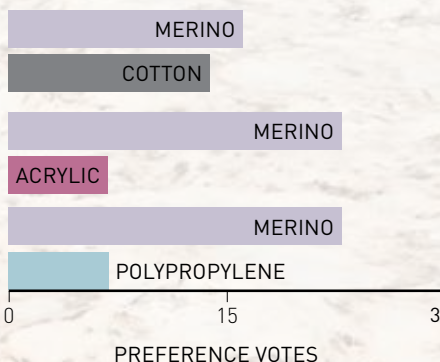
WOOL KEEPS YOU FRESHER FOR LONGER COMPARED TO APPAREL MADE FROM OTHER FIBRES

Wool fabrics⁵ are less odorous after wear than fabrics made from other natural or man-made fibres, such as cotton and polyester.⁵ Research has shown that high levels of odours persist in unwashed polyester clothes, but odour levels remain low in unwashed wool clothes.⁶ One New Zealand study which involved 13 skilled olfactory (smell) assessors found that wool fabrics on average retained 66% less body odour intensity than polyester fabrics and 28% less than cotton fabrics. **B**

REFERENCES

1. • The Wira Textile Data book, Leeds, A. Rae and R. Bruce, The Wool Industries Research Association, 1973, pp 64 – 72.
• Speakman J. B & Cooper C. A. The Adsorption of Water by Wool, Part I – Adsorption Hysteresis, Journal of the Textile Institute Transactions, 1936 27:7, T183-T185 [http://dx.doi.org/10.1080/19447023608661680].
• Urquhart, Alexander Robert B.Sc., A.I.C. and Williams, Alexander Mitchell M.A., D.Sc. The effect of temperature on the absorption of water by soda-boiled cotton, Journal of the Textile Institute Transactions, 1924, 15:12. [http://dx.doi.org/10.1080/19447022408661326]
2. CSIRO Odour and Toxics Absorption, 2006.
3. Merino Wool Sock Brochure, AWI, CSIRO, 2010.
4. B. Holcombe, Wool Performance apparel for sport, Advances in wool technology, 2009, Woodhead Publishing Limited, p. 268.
5. McQueen, R.H., Laing, R.M., Brooks, H.J.L. and Niven, B.E., Odour intensity in apparel fabrics and the link with bacterial populations, 2007, Textile Research Journal, 77, 449.
6. McQueen et al, Retention of axillary odour on apparel fabrics, 2008, Journal of the Textile Institute Vol. 99, No 6, 518.

PREFERENCE AFTER WEARING



PREFERENCE AFTER WASHING

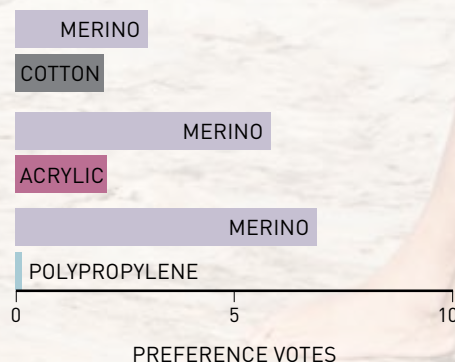


Figure 1: Odour-wearer trials studying sock performance in activewear.³

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INTERNATIONAL WOOLMARK PRIZE

2017/18 WINNERS ANNOUNCED



The winners (from left): two models of the **Innovation Award winner**; two models of the **womenswear winner**, womenswear winner **Ruchika Sachdeva** of **Bodice** (India), Innovation Award winner **Christopher Bevans** of **DYNE** (USA); menswear winner **Matthew Miller** (Britain); two models of the **menswear winner**.

The International Woolmark Prize generates long-term incremental demand for Australian Merino wool by connecting emerging designers, markets and consumers with Australia's versatile natural fibre.

In front of global fashion luminaries and media, the winners of the 2017/18 International Woolmark Prize were announced in January at a special event during the Pitti Uomo trade show in Florence, Italy.

Matthew Miller from Britain and Bodice from India are the winners of the menswear and womenswear categories. The USA's DYNE is the winner of the inaugural Innovation Award.

Relaunched in 2012 by AWI's marketing arm, The Woolmark Company, the International Woolmark Prize is designed to generate long-term incremental demand for Australian Merino wool by increasing the knowledge of and lifetime loyalty to the fibre amongst the competition's designers and alumni around the globe.

Furthermore, the phenomenal interest in these awards from fashion communities and media globally is helping put wool back on the agendas of a broader range of fashion designers, manufacturers, brands

and retailers, and consequently into retail stores for consumers to purchase.

The designs from the 12 regional winners were judged at the finals event in Italy by some of the most respected authorities on fashion along with representatives from the International Woolmark Prize retail partner network.

The world's most prestigious department stores and boutiques, including Harvey Nichols and David Jones, will showcase and stock the wool collections of the menswear

and womenswear winners. The Woolmark Company has also partnered with online showroom platform ORDRE for a second year to present the finalists' capsule collections to a retail network that will allow wholesale orders to be placed.

"Today we saw the world's best emerging designers present a true celebration of fashion design and innovation, as they shone the spotlight on Australian Merino wool," said AWI CEO Stuart McCullough at the finals event. "Each year, the competition has been fierce, and this year was no different. I would also like to commend the mills and spinners who supplied the labels with luxury fabrics and yarns and assisted in the development of innovative fabrications."

More than 65 designers from more than 60 countries were nominated for this year's award, with finalists representing six different regions around the world. The global finalists were Blair Archibald and Harman Grubiša (Australia & New Zealand), SixLee and KYE (Asia), Matthew Miller and Le Kilt (British Isles), L'Homme Rouge and David Laport (Europe), Antar-Agni and Bodice (Indian Subcontinent and Middle East) and DYNE and Zaid Affas (USA).

MORE INFORMATION
www.woolmarkprize.com

Hear more about the International Woolmark Prize in Episode 27 of AWI's The Yarn podcast at www.wool.com/podcast



INTERNATIONAL WOOLMARK PRIZE AT A GLANCE

- Connecting the world's leading fashion designers with Australian Merino wool is extremely important due to the **enormous influence these designers have in setting global textile trends** for mainstream retail brands.
- Every year, **up to 70 designers** develop and present the most innovative designs, made from at least 80% **Australian Merino wool**.
- Since its relaunch in 2012, more than **384 of the award's participating designers** from **65 countries** have received an extensive wool education from product development to sourcing.
- The competition's **alumni** (designers and judges) are imbued with a love of wool that often translates into their subsequent collections being wool-rich.
- The designs from the regional winners are judged by some of the most famous and **respected authorities on fashion**, and presented in front of the world's media.
- The winning collections are stocked (including online) by the program's **14 retail partners**, some of the world's most prestigious department stores and boutiques.
- The interest in the International Woolmark Prize from the global fashion and consumer media has been enormous – **\$190 million in editorial value** has so far been generated across traditional channels (magazines, newspapers), and **129 million people** reached across social media (Facebook, Instagram, Twitter and YouTube) in 2016/17 alone.



Menswear winner **Matthew Miller** (Britain) speaking with judge **Eva Galambos** of leading Australian multi-brand luxury fashion retailer **Parlour X**, during judging.

MENSWEAR WINNER

Using Australian Merino wool ranging from 17.5 to 20.5 microns, menswear winner Matthew Miller from Britain added multifunctional elements to his designs for different environments, such as the addition of a garment belt system which acts as a way to turn the garment into an accessory in warmer climates. He also included innovative treatments to create, for example, water resistant fabrics.

"Winning this award is amazing, it's a dream come true," he said. "To be listed alongside the previous winners of this prize is next level."

For *Vogue Italia* Editor-in-Chief Emanuele Farneti, Matthew Miller presented a well-balanced collection with attractive price points. "He showed a good combination between innovation, commercial viability and pieces which will be worn by men on the street."



Detail on a design from **womenswear winner Bodice** (India). PHOTO: Morgan O'Donovan

WOMENSWEAR WINNER

Womenswear winner Bodice from India was praised for its technique and manufacturing process. Collaborating with hand weavers and encouraging them to take an unorthodox approach to traditional techniques, Bodice produced an elegant collection honouring both Australian Merino wool and the artisans of India. Bodice also worked with Bio-Dye in Sawantwadi, central India, which makes all its colours from natural sources.

"This is a huge opportunity to expand on what I do and keep doing it," said Bodice designer Ruchika Sachdeva. "To get the chance to work with these retailers is incredible."

Womenswear designer Phillip Lim thought Bodice's collection was "completely thoughtful". "From the ingredients and dyes used all the way to the application and everything in between, her collection really represents a modern woman."

INNOVATION AWARD WINNER

This year's International Woolmark Prize also held its inaugural Innovation Award, powered by Future Tech Lab, to reward the collection with the most innovative and creative wool fabrication, process or development. This award aims to inspire the competition's designers to be more experimental when developing fabric or yarn for their final collections.

Inspired by learning to snowboard in the 1980s – in a wool bomber jacket – the winning collection of DYNE's Christopher Bevans comprises a technical snowboarding wardrobe, complete with an 'NFC chip' in the water-resistant wool jacket to track users in avalanches.

The collection is crafted from Merino wool ranging between 17 and 19.5 microns, and includes zip-up hoodies, track pants, trench coats and pullovers – with reflective overlays and inserts, functional pocket zips, laser-cut details and two-way stretch.

"It's an honour," said DYNE designer Christopher Bevans. "We pushed so hard and to be recognised for this is incredible. It doesn't get more special."

"For me he was definitely the leader in innovation," said Future Tech Lab founder/CEO Miroslava Duma. "The NFC chips he embedded in his collection, and the fabrication of the snowboard gear, really stood out. He really thinks about technology every step of the way."



Designs of the winner of the **Innovation Award**, **DYNE**. PHOTOS: Morgan O'Donovan

MARKS & SPENCER'S

WINTER WOOL CAMPAIGN IN THE UK

As the largest UK retailer of wool products, Marks & Spencer is a key brand with which AWI's subsidiary, The Woolmark Company, works collaboratively to help promote wool products.

The Woolmark Company has worked with M&S for several years, supporting product development, sourcing and marketing to help raise awareness amongst its customers of what wool can offer in terms of natural benefits and value.

Collaboration between the two companies continued during the recent UK autumn/winter season, through which M&S promoted its wool range in 142 of its UK stores, its website, newsletter to customers and advertising campaign in national magazines and newspapers.

M&S is a Woolmark licensee and has a strong focus on increasing its range of products containing natural fibres. The company's latest global campaign 'Spend it Well' is a direct reference to quality and conscious buying, which perfectly aligns to the messaging that The Woolmark Company promotes about wool. The campaign highlighted wool products across womenswear, menswear and kidswear and across categories from clothing to accessories.

The campaign was run in the UK at almost no cost to The Woolmark Company other than product and Woolmark ticket and labelling advice, with the Woolmark logo front and centre in M&S's marketing. The campaign was developed out of the willingness of M&S to promote natural fibres and quality assurance messaging and the ongoing work by The Woolmark Company with the M&S Product Development, Technical and Marketing teams.

MORE INFORMATION
www.marksandspencer.com

M&S
 EST. 1884

M&S ADVERTISING CAMPAIGN



The M&S wool advertising campaign had a **4 million print reach** in the UK and featured in key fashion publications including *Vogue*, *Vanity Fair* and *Marie Claire*, and key national newspapers including *The Guardian*, *The Times* and *Evening Standard*. The advertising featured the 'Proudly Supported by The Woolmark Company' logo as umbrella branding for M&S's Pure New Wool, Wool Rich Blend and Wool Blend Performance product range.

M&S WINDOWS AND IN-STORE



M&S featured the wool campaign in **142 stores** across the UK (including displays in **508 shop windows**) showcasing wool products available to purchase. The displays included the 'Supported by The Woolmark Company' logo and the statements: 'Be as warm as the wool you wear', 'Happiness is best worn naturally' and 'Good things come to those in wool'.

M&S STAFF EDUCATION



A **Wool Appreciation Course** was delivered to the M&S Customer Sales & Service team, which focused on wool's benefits, caring for wool products, and the meaning of the Woolmark logo.

M&S WEBSITE & NEWSLETTER



M&S included a **co-branded wool section** in its website for womenswear, menswear and kidswear that promoted wool and its wool products with direct links for consumers to purchase the products online.

M&S developed a **newsletter** with the concept 'You've got your woollens; here's how to care for them'. The newsletter was sent to customers that bought wool products and it also linked to the wool care-guide on the Woolmark.com website.

British menswear brand **Charles Tyrwhitt** – which also recently opened stores in the **USA** and **France** – started using the Woolmark logo in its tailoring range in the recent autumn/winter 2017 season.

CHARLES TYRWHITT'S MAGNIFICENT MERINOS

British menswear brand **Charles Tyrwhitt** has chosen to introduce the Woolmark logo into its knitwear and tailoring ranges to show its customers that it is using the best quality Merino.

“If Merino were a rockstar, I'd sing its name from the front row. If it were a footballer, I'd have it printed on the back of my shirt. I guess I'm what they call a super fan. But can you blame me? This delightfully breathable, temperature-regulating wonder does everything except your washing up, and it's blissfully lightweight and warm to boot. Mother Nature, you've excelled yourself.”

So says Nick Wheeler, the owner of renowned British menswear brand Charles Tyrwhitt (pronounced “Tirrit”), founded in 1986. Nick's full name is Nicholas Charles Tyrwhitt Wheeler – so now you know from where the company's name was derived. In fact, after Nick's full name are now the letters O.B.E., because he was awarded an Order of the British Empire by the Queen in this year's New Year honours list, for services to retail.

The Woolmark Company worked closely with **Charles Tyrwhitt** to develop **bespoke Woolmark tickets and labels**.

He says that the inspiration for starting Charles Tyrwhitt was that “I thought I could make a better shirt than anybody else”. Since those humble origins, he has expanded the business to include a full range of menswear including suits, casualwear, jackets and accessories, but still with the commitment to use only the “finest materials” in its products and ensure they are “built to last”.

The company now has 24 stores across the UK including the company's flagship store on the world-famous Jermyn Street in London, and the company has recently opened in New York, Paris, Washington DC and Chicago. Customers can also browse and buy its full collection online.

Charles Tyrwhitt's technical team contacted AWI's marketing arm, The Woolmark Company, in April 2016 because it was interested in knowing more about how it could use the Woolmark logo in its products. Since then, The Woolmark Company has been working closely with Charles Tyrwhitt in supply chain mapping and the development of bespoke Woolmark tickets and labels for its knitwear and woven collections.

Currently sourcing from a licensed supply chain, Charles Tyrwhitt used Woolmark tickets/labels on 60 different styles of knitwear and 20 styles of suits in 2017.

“Woolmark branding is a great way for us to reassure our customers that we are using the best quality Merino. Woolmark is a world recognised logo and I think it is great that we are able to include this on our product and use it as a marketing tool,” says Charles

Tyrwhitt Buyer, Sarah Hyams.

The Woolmark Company has also assisted Charles Tyrwhitt to introduce Woolmark branding into the company's promotional materials such as Point of Sale collateral, product catalogue and online. The Woolmark Company has developed a close relationship with the Charles Tyrwhitt technical and design teams to whom they have presented the Wool Appreciation Course and The Wool Lab sourcing guide.

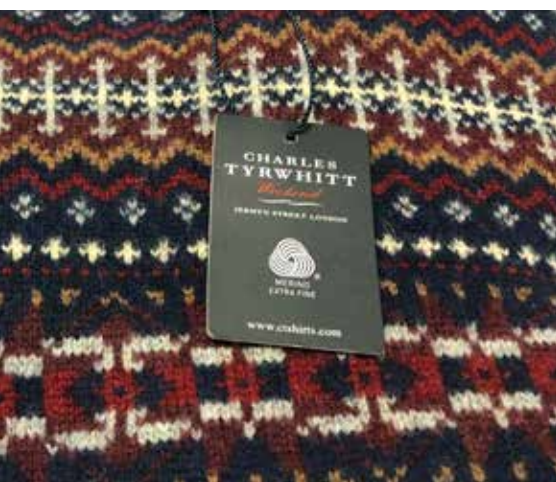
“Our range of Magnificent Merinos are lightweight yet warm, strong yet soft, and easy to care for. Not to mention their Woolmark certification, which means you can rely on the fact that ours is the world's best.”

**NICK WHEELER,
OWNER OF CHARLES TYRWHITT**

Let's finish with another splendid quote that Nick Wheeler uses in the promotion of his company's Merino wool products:

“Merino; the king of our hearts and wardrobes. Knitted from pure, super soft and extra fine Australian Merino wool, this fibre is one of Mother Nature's finest achievements. Our range of Magnificent Merinos are lightweight yet warm, strong yet soft, and easy to care for. Not to mention their Woolmark certification, which means you can rely on the fact that ours is the world's best.”

MORE INFORMATION
www.ctshirts.com



LAW AND ORDERS

Orders from law enforcement and other agencies for innovative wool-rich uniforms are soon expected, following an initiative by AWI with North American company 5.11 Tactical to regain a significant market share for wool in the uniforms sector.



5.11 Tactical's new wool-rich uniform collection was launched on the 5.11 Tactical stand at the Shot Show trade show in Las Vegas.

5.11 Tactical is a service apparel and gear manufacturer that originally made its mark in the early 1990s when its 5.11® Pant was adopted by the FBI Training Academy as its training pant. The company has evolved by developing an extensive range of law enforcement and public safety products, and today is also expanding into the outdoor and fitness markets. It has stores across the world including in Australia.

5.11 Tactical's uniform line is suitable for service personnel such as police and first responders. In fact, Australia's Northern Territory police force is dressed by 5.11 Tactical.

AWI's marketing arm The Woolmark Company has partnered with 5.11 Tactical, helping the company create a wool/polyester blend Class A (formal) uniform collection made using Flex-Tac® fabric, a specialised proprietary blend engineered to provide extreme durability and performance.

Australian Merino wool provides next to skin softness, while also resisting abrasion, and features natural stretch properties, while retaining shape and colour. The Flex-Tac® Poly/Wool line is the first ever Class A uniform with mechanical stretch that also has a Teflon® finish and is home laundry friendly. The garments resist soiling and staining and offer natural thermoregulation and UV protection.

The collection has Woolmark certification and includes men's and women's short-sleeve and long-sleeve shirts and pants. It was unveiled to media and wholesalers in January at the Shot Show trade show in the USA, with full market availability coming in Summer 2018. The collection will also be on display at the USA's

largest police uniform trade show, IACP.

"Our alignment with 5.11 Tactical not only highlights the versatility of Australian Merino wool, but is also a nod to the fibre's heritage," said AWI CEO Stuart McCullough. "Traditionally, wool has been used in a variety of uniforms, so it is nice to see the fibre return to this important sector. Highly breathable with superb thermoregulation properties and resistance to odour, Merino wool should be the natural choice for police and service personnel."

The partnership marks the beginning of a long-standing relationship whereby AWI will continue to work closely with and support 5.11 Tactical's design team, which has already viewed and utilised AWI's The Wool Lab sourcing guide for wool fabrics and yarns. AWI's USA, Shanghai and Hong Kong teams

have also supported 5.11 Tactical by providing wool appreciation courses for their design and development teams, and connecting their design team with the wool supply chain.

"5.11 leads with innovation in the design and development of all of our products – and our uniform line specifically demands the highest levels of functionality and durability," said David Hein, Vice President of 5.11's Professional Division. "Collaborating with The Woolmark Company shows 5.11's commitment to providing the highest levels of performance in our uniform offering. We are excited to be working with Woolmark on our Flex-Tac® Poly/Wool Collection and look forward to exploring additional opportunities to partner together in the future." **B**

MORE INFORMATION
www.511tactical.com



An example of the new **Woolmark-certified wool/polyester blend uniforms** from 5.11 Tactical.



These ten **Merino wool shawls**, unveiled in December at the **Taj Mahal Palace** in **Mumbai** in the presence of prominent industry professionals, are available in India from leading luxury ecommerce platform **Tata CLiQ**.

ECOMMERCE PARTNERSHIP IN INDIA

AWI's marketing arm, The Woolmark Company, has formed a collaboration with Tata CLiQ Luxury, a leading luxury ecommerce platform in India, to help build demand for Merino wool amongst premium Indian consumers.

As part of the collaboration, Tata CLiQ Luxury has launched The Shawl Project, which showcases the revival of one of India's most valued textile traditions, the shawl. Tata CLiQ Luxury and The Woolmark Company worked with 10 of India's leading designers who each created one unique shawl, using a minimum of 80 per cent Merino wool and embodying Indian artisanal expertise, which are being retailed on the online Tata CLiQ Luxury webstore.

"All ten designers have woven invaluable pieces of art with Merino wool and we

are sure that our discerning consumers will cherish it," said Vikas Purohit, Chief Operating Officer, Tata CLiQ. "This project is very dear to the brand, as it allows us to create awareness about traditional crafts and culture amongst our discerning consumers."

AWI Country Manager India, Arti Gudal, said the project has encouraged designers to rediscover Australian Merino wool and India's heritage. "This association will strengthen our effort to empower and promote both Australian wool and the

handloom industry in India through local retail and weave together two cultures – which will result in increased demand for Australian Merino wool," she said.

As part of the collaboration with The Woolmark Company, Tata CLiQ Luxury will also be the exclusive retail partner in India for International Woolmark Prize winning collections, which is particularly appropriate this year with Indian label BODICE winning the womenswear category (see page 18).

FROM MUDGE TO THE MIDDLE EAST

The interest in Merino wool in the Middle East has been boosted with a promotion of the fibre by AWI's marketing arm, The Woolmark Company, at a key retail forum in Dubai.



Left: An advert with **Shravan Reddy** and the winner of Australia's Next Top Model, **Aleyna Fitzgerald**, that was photographed on a wool-growing property at **Mudgee, NSW**. An accompanying video debuted at the Middle East Retail Forum in November.

Right: Renowned Indian actor and wool ambassador **Shravan Reddy** promoting Merino wool at the **Middle East Retail Forum**.



The Woolmark Company partnered in November with the Middle East Retail Forum, a unique gathering of leading retail executives from the region, to promote Australian Merino wool.

AWI Country Manager India, Arti Gudal, said the forum enabled The Woolmark Company to connect with like-minded brands within the Middle East and promote the latest wool trends, fabrics and yarns for activewear and luxury apparel.

"Held in the fashion hub of the Middle East region, Dubai, the forum was an ideal space to highlight the new opportunities for Merino wool in the contemporary fashion segment, which is crucial to cement wool's rightful place as a modern fibre," she said.

Renowned Indian actor and The Woolmark Company's wool ambassador Shravan Reddy helped promote Merino wool at the event in front of global media outlets and influencers.

A video of him showcasing a range of commercially available Merino wool styles, from the classic to the contemporary, was released at the forum. The video was filmed at Tim and Judy Rohr's 'Eastwood' wool-growing property at Mudgee, NSW, highlighting the farm to fashion journey.

At the forum, AWI Country Manager Italy, Francesco Magri, also gave a presentation on the latest edition of The Wool Lab sourcing guide.

MERINO PROMOTED AS A PREMIUM FIBRE DURING CHINA WOOL WEEK

To help increase the demand for Australian Merino wool in China, **three of the country's most stylish women have united with AWI and China's T Magazine to showcase the best new wool looks** whilst highlighting the numerous benefits of the fibre.



Fashion blogger **Cheng Xiaoyue** and actresses **Jiang Mengjie** and **Xin Zhilei** in one of the photos for Chinese **T magazine** promoting the latest Merino wool looks from well-known **Chinese fashion brands**.

With increased affluence and a tendency towards leading healthier lifestyles, discerning Chinese consumers are now favouring natural, long-lasting garments, more so than following the latest trends perpetuated by fast fashion. As a premium and luxurious natural fibre, Merino wool is one of the most coveted fibres in high fashion in China.

Following a successful joint campaign in 2016, AWI once again partnered last year with high-profile Chinese publication *T Magazine* to showcase to modern and cosmopolitan Chinese women the latest wool-rich Autumn/Winter collections from leading brands.

Under the theme 'Naturally Inspiring', a photo series in the magazine featured actresses Jiang Mengjie and Xin Zhilei, as well as fashion blogger Cheng Xiaoyue, wearing the latest Merino wool looks from well-known Chinese fashion brands

EACHWAY, EIN, JNBY, less, Marisfrolg, MO& Co. Edition10, nisiss, TINA GIA and Vmajor.

The photographs formed part of the China Wool Week campaign, an in-store initiative by AWI's marketing arm The Woolmark Company, that ran in November. Throughout the week, all 800+ outlets of the nine brands across China promoted the benefits and beauty of the Merino wool fibre through retail displays, social media and in-store promotions.

As part of the campaign, the three iconic women told their own stories through the shoot, while showcasing their beauty and unique style through Merino wool.

Xin Zhilei embraces the philosophy of "quality over quantity" in her acting career, sometimes choosing lesser-known roles over lead ones in order to perfect her craft and hone her talent. "Wool garments stand the test of time. People will always think

of wool during harsh winters, and I can see myself within this idea of beauty in simplicity," says Xin.

Likewise, actress **Jiang Mengjie** strives to challenge herself and break boundaries by pursuing a variety of roles. "Wool has been widely used for years, yet it constantly presents itself in new forms, without changing its status as an exquisite and elegant fibre," Jiang says. "I am the same when it comes to trying new roles while maintaining my own identity."

Fashion blogger **Cheng Xiaoyue** found her passion in avant-garde design and fashion, cultivating a unique, sharp style. Describing her fondness for wool, Cheng explains: "Wool has it all, both in visual appeal and in functional aspects. Wool is indispensable in winter, it is warm, yet is so adaptable to different styles and can be either girly or edgy. By displaying both style and inner beauty, wool mirrors my own life." **B**

A FIBRE FOR A NEW CHINESE GENERATION

One of China's most successful designer labels COMME MOI is telling the farm to fashion story to a new generation of Chinese consumers.

Lu Yan is certainly about humble beginnings. Growing up in a small mining village in Jiangxi Province, China, it was a chance encounter with a talent scout at a hotel lobby in Beijing at the age of 18 that saw her whisked off to Paris to pursue a career in modelling. Fashion magazine covers and runway appearances rained in during the next 15 years, and the once 'unconventional beauty' became China's first supermodel.

Returning to China and noticing a gap in the market, Lu Yan started her own fashion label in 2013, and COMME MOI was born. Starting with one collection comprising just 10 pieces, the label – known for its well-tailored and high-quality fabrics – quickly garnered a strong following and its second collection grew to 30 pieces and was stocked in Hong Kong's high-end retailer Lane Crawford.

Meeting with AWI's subsidiary The Woolmark Company in 2015, Lu Yan quickly became engrossed with the world of wool and the following year a partnership was announced between COMME MOI and The Woolmark Company, with the label releasing a wool-rich Autumn/Winter 'China Rouge' collection.

In 2017, COMME MOI returned to Merino wool, this time producing a collection using trans-seasonal Cool Wool fabrics. Lu Yan visited Australia in February to launch the Cool Wool collection in Australia, at the Sydney boutique Parlour X.

"I am grateful to Parlour X and The Woolmark Company for being the bridge between COMME MOI and Australian consumers," said Lu Yan. "Merino wool's high quality, softness and versatility works perfectly with my designs, ensuring excellent tailoring and making them inherently comfortable to wear."

China, in recent years, has fast become a large consumer of luxury goods. Once a manufacturing hub, the rise of middle income earners has seen a demand for high-end products, such as those made from Merino wool, which is great news for the Australian wool industry.

"Lu Yan's design philosophy highlights the importance of natural fibres and quality details, setting trends for the new generation of fashion-savvy consumers in China," explained AWI China Country Manager, Jeff Ma. "From being China's first supermodel to the founder of COMME MOI, Lu Yan continues to express her unique style through innovative thinking and design."



Chinese fashion designer Lu Yan, of COMME MOI, at Bloomfield Station near Yass, learning about the source of Australian Merino wool – a fibre which has been used in the label's past two collections. Pictured are AWI General Manager Eastern Hemisphere, John Roberts; designer Lu Yan; property owner Alasdair MacLeod and property manager Matt Crozier.

BACK TO THE SOURCE

While in Australia, Lu Yan also took the opportunity to visit a wool-growing property – 'Bloomfield Station' near Yass in NSW – to see the source of Merino wool and gain first-hand experience of life on the land. The visit coincided with an on-farm photoshoot for the Travel edition of leading Chinese publication *T Magazine*, which will see Lu Yan on the magazine's cover for the June edition.

"This is the first time I have visited a wool farm," she said. "It's so big; the landscape, the view, it's fantastic. I have even more respect for the woolgrowers after seeing the sheep, the shearing process and the long, difficult process in producing wool."

Bloomfield Station property manager Matt Crozier said opportunities such as hosting international designers were wonderful for promoting the Australian wool industry worldwide.

"It's been great to host Lu Yan; she's obviously a very famous person in China – both as a model and a designer. She's a great influencer in promoting wool all around the world," he said.

"I know she thinks it's a wonderful fibre and, in the past, has worked with The Woolmark Company. We're really excited she has chosen to use a considerable amount of wool in her range."

AWI General Manager Eastern Hemisphere, John Roberts, said that delegations like this one are extremely important for marketing wool.

"To see it come from a sheep's back, to smell a shearing shed, to see the properties and the work and the devotion that's put into it – that level of provenance, that story really creates a romance with the industry and really enhances our ability to market the product," John said. **B**

MORE INFORMATION

Hear more from Lu Yan's visit to the farm in Episode 28 of AWI's The Yarn podcast at www.wool.com/podcast



Customers queuing up to try on items from the COMME MOI Cool Wool collection at the collection's launch in Australia last month.



Founder and designer of Japanese brand FACETASM **Hiomichi Ochiai** during a recent visit to Australia.
PHOTO: Robert Lang Photography

JAPANESE LABEL CHAMPIONING AUSTRALIAN WOOL ON GLOBAL STAGE

A visit by Japanese fashion designer **Hiomichi Ochiai** to an Australian wool-growing property last year was the impetus behind the latest collection from his internationally renowned fashion label **FACETASM**.

Paris and Tokyo can seem world's away from the sheep paddocks of Australia, but all three came together in January when Japanese label FACETASM unveiled at Paris Fashion Week a wool-rich Woolmark-certified collection inspired by Australian Merino sheep, the fibre they produce and the woolgrowers that look after them.

The Autumn/Winter 2018 collection of FACETASM is a result of a two-season partnership with AWI's marketing arm, The Woolmark Company.

The collaboration has seen The Woolmark Company work closely with FACETASM's design team, showcasing to them The Wool Lab sourcing guide so that the designers can draw on the most innovative wool fabrics and yarns for their collections.

"This partnership deepens the relationship between the Australian wool industry and Japan's fashion industry, with FACETASM taking the two to a global audience via its extensive range of stockists," AWI CEO Stuart McCullough said.

"Japan is an important market for Australian wool; the partnership with

FACETASM and Hiromichi Ochiai's role as global wool ambassador for Japan will further expand Merino wool's legacy beyond traditional tailoring. Through partnerships like this one, AWI aims to provide a broader consumer choice in innovative wool garments."

To gain first-hand experience of the process of growing wool, FACETASM founder and designer Hiromichi Ochiai travelled to Australia in November and visited wool-growing properties 'Wannawong' and 'Kalenea Poll Merino' in Victoria. The opportunity to meet woolgrowers Michael and Alexandra Kelso, Kevin and Marg Mibus and Ben and Megan Mibus, and to see the initial stages of the wool supply chain gave Ochiai invaluable insight and inspiration for his collections.

"I saw how much the sheep farmers have loved the sheep, nature and their own land over generations," said Ochiai. "It was such a precious experience for me to actually talk to farmers and experience how Merino wool is produced. Although so far, I had seen Merino wool only at the fabric stage, through this visit I learnt it is actually based on so much love and history.



A piece from **FACETASM's** collection that was unveiled at **Paris Fashion Week** in January. The collection includes 100% Wool Denim trousers and jacket, 100% wool gabardine wide-leg trousers, pleated skirt and down jacket along with innovative wool fur fabrications.

"Merino wool is an essential ingredient for the brand to move onto the next step in its creations," added Ochiai. "Collaboration with The Woolmark Company is a great opportunity for the brand."

The two-season partnership will also see The Woolmark Company partner with FACETASM for its Spring/Summer 2019 offering. **B**

MORE INFORMATION

Hear more about Hiromichi Ochiai's visit to Australian wool-growing properties in Episode 23 of AWI's The Yarn podcast at www.wool.com/podcast



NANO UNIVERSE'S BIG MERINO PROMOTION

Nano Universe, one of the largest Japanese retail brands, has recently run a large-scale knitwear campaign in collaboration with AWI.

Nano Universe is one of the major multi-brand retailers in Japan selling quality casualwear to young women and men. The company has strong sales growth in its 64 shops across Japan and its online store.

The company's latest knitwear promotion was run in collaboration with AWI's marketing arm The Woolmark Company from October to December, to raise awareness and increase sales of Australian Merino wool products, specifically within the men's 18-30 segment.

Based on the success of a similar campaign run with The Woolmark Company in the previous year (which resulted in a 30% increase in sales), Nano Universe decided to heavily feature Woolmark-certified knitwear again in its Autumn/Winter 2017 campaign. 29,600 pieces were for sale (a 40% increase from 2016) in several styles and colours.

The knitwear was promoted in advertorials in two major men's magazines plus online, displays at 43 stores, a dedicated page on the brand's website (<http://store.nanouniverse.jp/feature/woolmark>).



Nano Universe heavily features **Woolmark-certified knitwear** again in its Autumn/Winter 2017 campaign.

New for the Autumn/Winter 2017 campaign, Nano Universe and The Woolmark Company also undertook a 'made-to-measure' Australian Merino wool knitwear program in which customers (unisex) could choose from a wide range of options such as yarn colour (120 colours), gauge, pattern and neck style.

This was the very first made-to-measure program for ordering Merino knitwear in Japan. The promotion included a video featuring a very popular dance group in Japan which helped the program achieve good editorial coverage.



Nano Universe and The Woolmark Company promoted a Japanese-first '**made-to-measure**' **Australian Merino wool knitwear program** for consumers – with the help of a popular Japanese dance group.

MERINO IN TOKYO

Iconic fashion designer Raf Simons has launched a 100% Merino wool sweater with the words 'I Love Tokyo' emblazoned in Japanese on the front as an ode to his love of the Japanese capital.

Made from luxurious Merino wool yarn spun in Italy by Manifattura Sesia, the Woolmark-certified oversized sweater was launched in November at the prestigious Dover Street Market in Ginza, Tokyo, with Raf Simons present.

Raf Simons is one of the world's most celebrated fashion designers, with *Vogue* citing him as "the most exciting, the most

innovative and ultimately the most important designer working in menswear today".

The release of the sweater is part of a partnership forged last year between the Belgian-born designer and AWI's marketing arm The Woolmark Company, which works closely with and supports the Raf Simons design team with innovation and sourcing of Merino wool.

"Raf Simons is one of the greatest designers of our time, whose distinct style and vision attracts a loyal following each and every season," says AWI CEO Stuart McCullough. "These sweaters perfectly connect Raf Simons' design aesthetic with his love for Tokyo, united by the world's most luxurious Merino wool.

"By aligning the Woolmark brand with one of the world's most respected designers, AWI continues to elevate the Woolmark brand's positioning in the luxury market as a symbol of not just quality but also relevancy and creativity."



Raf Simons' new 100% Merino wool sweaters at the launch in Tokyo (left) and being worn by singing sensation **Pharell Williams** on *The Ellen Show* in January (above).

TECH GEN LEARNS ABOUT WOOL



Students from **Scotch Oakburn College**, Launceston, with their teacher (and wool producer) **Madeleine Scott** using resources from AWI's Learn About Wool initiative.

As part of its commitment to help teach students about the unique and natural benefits of Australian wool, AWI has revamped its Learn About Wool website (first launched in 2015) to contain even more multimedia resources, lesson plans and educational experiences for teachers and students.

Aligned to the Australian Curriculum, the website offers opportunities to incorporate wool into everyday classroom activities through science, design and technology, geography, history, the arts and economics and business. With engaging content relevant for students from early childhood through to senior secondary school the Learn About Wool website covers in detail the on-farm production, processing, marketing and fashion aspects of Australian wool.

The website, available at www.learnaboutwool.com, was developed in conjunction with leading primary and secondary teachers and has been designed so teachers can now search for lesson plans and resources by year level, subject area and topics of interest.

As well as being available as an online resource, the free and popular Learn About Wool resource kit, which includes real fibre, yarn and fabric samples, multimedia presentations, factsheets and posters, is still being delivered to schools throughout Australia. The kit was initially launched in 2013 and has proved very popular; it can be ordered at www.learnaboutwool.com.

Agriculture and science teacher Nicole

Entz of Coodanup College in Mandurah in WA said many of her students have little knowledge about where their everyday food and fibre products come from.

"Many of the students are in small 400-600sqm rental housing and have never even had the opportunity to own a cat or a dog and learn the basics of animal husbandry and care," she said. "I see the Learn About Wool kit enabling me to utilise the only small agriculture area and resources that we have to help my students develop the knowledge they need to be more informed."

USING 'VIRTUAL REALITY' IN EDUCATION

Learn About Wool was promoted at the 2018 National Association of Agricultural Educators (NAAE) biennial conference, held in Tasmania in January and supported by AWI.

Also at the conference, through the support of AWI, keynote speaker, digital marketer and immersive educator Tim Gentle of Think.Digital shared to the enthralled audience his vision of how to bridge the digital divide between the city and country by using FarmVR, a Virtual Reality App.

"FarmVR is a free virtual reality agricultural experience, designed to 'immerse' people into various agricultural experiences so they can learn more about where their food and fibre comes from, consider agriculture as a career, and assist teachers to engage with their

students in the classroom," Tim said.

"FarmVR has an array of 360-degree video and photography experiences that, when viewed in a VR headset, place the viewer into the environment. This offers a new level of engagement to the viewer; they literally feel like are standing in, for instance, the paddock or the shearing shed.

"When students are immersed and engaged by such a 'virtual field trip', we are finding the learning outcome is so much better because the content is around them and they are fully engaged."

AWI is already involved in using virtual reality technology. For example, the company's marketing arm The Woolmark Company has used a 'virtual reality farm tour' at many trade shows and retail promotions, where visitors can wear virtual reality headsets and be 'transported' to an Australian sheep farm to visually experience first-hand the source of Merino wool.

In December last year, AWI also partnered with *National Geographic* to launch a virtual reality experience of explorer Pete McBride sharing the benefits of wearing Australian wool apparel on one of his adventures in Colorado.

Earlier this month, AWI also released a virtual reality experience of viewing five fabric innovations from The Woolmark Company.

These three virtual reality experiences can be downloaded for free from the Apple App and Google Play stores (search Woolmark VR).

AWI is also looking at ways to use 'augmented reality' in its educational and marketing activities. Augmented reality is a related technology that superimposes a computer-generated image on a user's view of the real world, thus providing a composite view (see bottom-right image). An example of its use might be a 'virtual dressing room' where an online shopper can see what a (computer-generated image of a) garment would look like on the user – effectively enabling the shopper to try on clothes from home.

Through an AWI augmented reality initiative, students could soon be taking a journey inside a wool fibre to explore the physical structures that make wool the world's most versatile natural fibre. **B**

MORE INFORMATION
www.learnaboutwool.com
www.woolmark.com/vr
www.farmvr.com.au

To help educate students about Australian wool, AWI has developed and rolled out **new school resources** and is looking at **innovative ways of using technology** to engage the next generation.



Top: A screenshot from **FarmVR** in Single VR Mode.

Middle: All delegates at the National Association of Agricultural Educators (NAAE) biennial conference received a Learn About Wool-branded **virtual reality headset** – for use with a smartphone. Delegates were shown how virtual reality can improve student engagement with the wool industry through immersive education.

Bottom: An example of **augmented reality** technology, which shows a computer-generated image of a sheep superimposed on a participant's view of Tim Gentle's presentation at the NAAE conference (as seen through the participant's smartphone).



The Year 10 winner of last year's competition – which had the theme 'favourite musician' – **Alice Wang** from **St George's High School** in **NSW**, had her design for musician SIA come to life, with fashion designer Jonathan Ward making the garment for an exclusive photoshoot with Frankie magazine. "The photoshoot was a truly unforgettable experience which encompassed an abundance of fun whilst providing great insight into the design industry," said Alice.

WOOL4SCHOOL 2018 REGISTRATIONS NOW OPEN

To be in the running to win a host of amazing prizes, Australian high school students are invited to **enter this year's Wool4School competition and design a multifunctional outfit made from Merino wool.**

Registrations are now open for the 2018 Wool4School design competition, with AWI encouraging all Australian high school teachers and students to register.

This year, Wool4School invites students to design a multifunctional outfit. From dresses turning into handbags, jumpers which can be worn as a skirt, or trousers becoming shorts – the possibilities are endless. The outfit should be designed to be made from at least 80% Australian Merino wool.

There are a host of amazing prizes on offer. Once again, the Year 12 winner will be granted a scholarship for the Whitehouse Institute of Design, giving those serious about entering the fashion industry some real life, practical experience.

By putting wool into the minds of Australia's future fashion designers, Wool4School encourages students' innovative thinking and creative design, in keeping with AWI's tradition of fostering the education of the future generation. **B**

HOW TO GET INVOLVED

WOOLGROWERS AND PARENTS

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

YEAR 7 -12 TEACHERS

Simply register your school and year groups at www.wool4school.com to receive a free Merino wool fabric pack and resource kit for the classroom.

YEAR 7 -12 STUDENTS

Learn more about the exciting competition at www.wool4school.com and talk to your teacher about getting involved.

KEY DATES

Registrations close: 31 May 2018
Submissions open: 27 July 2018



Parsons Paris students from the victorious REVOLUTION team and their winning Merino wool garments, created during an education program from AWI and French fashion house **Cerruti 1881**.

PARISIAN STUDENTS GET ULTIMATE INDUSTRY EXPERIENCE

To build their education and appreciation for Merino wool, leading Paris-based students were given the opportunity to work with the premium fibre alongside renowned fashion house Cerruti 1881, as part of a program co-developed by AWI.

AWI continues to foster the education and development of tertiary textile and fashion students – inspiring them in the early stage of their careers about the properties and benefits of Merino wool, and encouraging them to continue to use the fibre in their designs as they progress through their professional lives.

The latest initiative involved AWI's marketing arm The Woolmark Company working with French fashion brand Cerruti 1881 and renowned design school Parsons Paris – two establishments at the pinnacle of their respective fields.

Cerruti 1881 is a brand of the legendary fashion house Cerruti founded in 1967 in Paris. Its products are sold at hundreds of stores and outlets across the world. Parsons Paris is the European campus of The New School, an innovative university based in New York City. Its courses build on the curriculum of Parsons School of Design, a globally acclaimed art and design school.

Under the guidance of Cerruti's Creative Officer Jason Basmajian and his teams, Parsons Paris students were tasked to develop a wool-rich capsule collection, whilst gaining real-life experience across design, merchandising, and marketing. In

keeping with the tradition of fostering the next generation's education, AWI offered students the opportunity to experiment with a selection of luxury, fine Merino wool fabrics, which students used to create androgynous looks in line with the Cerruti heritage.

"The work produced by the students exceeded our expectations in terms of design, fabrication and their complete view to market, including pricing and merchandising."

STUART FORD
AWI General Manager

The results of AWI's unique collaboration with Cerruti 1881 and Parsons Paris came to fruition in December during a special event held in Cerruti's Paris showroom when a judging panel comprising fashion industry heavyweights chose one of the student teams, REVOLUTION, as the winner.

"The work produced by the students exceeded our expectations in terms of design, fabrication and their complete view to market, including pricing and merchandising," said AWI General Manager Western Hemisphere, Stuart Ford. "We are especially pleased as to the comments made by the designers about their exploration and

revelations in working with wool as a fibre and how they intend to make it an integral part of their future collections."

"We are so excited to have this opportunity with The Woolmark Company and Parsons, to really share our experience and an end-to-end process with the students," said Cerruti's Mr Basmajian. "Parsons students represent our talent in this business. The innovation with Woolmark, their support combined with our design and merchandising skills have really given the students a full 360-degree perspective of what it is like to work in the fashion industry today."

The student teams were asked to design an autumn/winter capsule collection, consisting of two full looks. Each look was to be modelled on both a male and female model, with androgyny being the key theme. REVOLUTION was chosen based on design, execution, business, marketing and visual presentation.

"The Cerruti and Woolmark project was one of the most rewarding experiences I've had through Parsons, not only because we were able to work and collaborate with the fashion designers and respected companies, but also because everyone was so engaged and passionate about the project," said Ashley Lee, Strategic Design & Management student and member of the winning team. **B**

STUDENT VISIT TO FARM EXPANDS KNOWLEDGE OF WOOL

AWI organised for a group of tertiary fashion and textile students from Melbourne to visit a wool-growing property and a knitwear manufacturer, to further expand their understanding of wool's farm to fashion journey.

A group of fashion and textile students got a taste of how Australian wool is produced during a visit to 'Poplars Merinos' near Geelong in Victoria, as part

of an AWI-organised tour to enhance their understanding of how wool is produced.

Owned by Graeme and Wendy Harvey – whose family has been on the property since the 1850s – Poplars Merinos is home to 8,000 Merinos that produce wool averaging 19 micron.

Graeme explained to the students what a life on the land is like, the importance of selective breeding, how often a sheep is shorn and how – as woolgrowers – they are true custodians of the land. In turn, students were able to ask Graeme and Wendy questions about the science and art of growing wool, compare fleece with fabrics and yarns, and gain a better understanding of Merino wool's origins.

The tour comprised students from Melbourne's Monash University, RMIT University's School of Fashion & Textiles and Whitehouse Institute of Design. By putting wool into the minds of Australia's future fashion designers, tours such as these encourage students' innovative thinking and creative design, in keeping with AWI's tradition of fostering the education of the future generation.

"I left this farm visit with a deeper understanding and appreciation for Australian wool farmers," said Advanced Diploma of Textile Design & Development student Amber Diffey.

"I cannot even imagine being responsible for 8,000 sheep! Graeme was a great host, I felt very welcome on his farm and he was able to answer all of our questions relating to wool-growing. I definitely would recommend this visit to anyone studying fashion and textiles."

"A beautiful opportunity to see wool growth, production and development from the farm gate to the factory floor,"

Christopher (Lachlan) Koren
Fashion Design & Technology student

The second part of the students' visit was to Melbourne's ABMT Textiles – a global leader in circular knit manufacturing, servicing a diverse customer base covering local fashion retailers through to global sports and outdoor brands.

ABMT's extensive assortment of knitting machines, in single jersey, double knit and jacquard, combined with the latest in low liquor ratio dyeing machines and broad finishing capabilities such as compaction, decatising and brushing, provide an enormous scope for circular knits.

AWI Group Manager, Trade Education, Julie Davies, said the tour aimed to inspire the students to work with Australian Merino wool throughout their careers.

"Organised as part of AWI's 'Naturally Inspiring' student seminar series, AWI offers a complete on-farm experience for students to enhance their understanding of farm life and the activities that woolgrowers undertake before the wool has left their gate," she said. "It creates a holistic experience for the students and hopefully increases their love of wool."

This project is part of a broader training and education program run by AWI, which aims to increase supply chain engagement with university level students overseas as well as in Australia.



Woolgrower **Graeme Harvey** of 'Poplars Merinos' near Geelong showing off some beautiful fleece to fashion and textile students from **Melbourne's Monash University, RMIT and Whitehouse Institute of Design.**



The students were part of an **AWI-organised study tour** to develop a greater understanding of Merino wool's source.



Hong Kong celebrity **Denise Ho** visited AWI's Wool Resource Centre for a photoshoot and interview to showcase wool apparel to *Lifestyle Journal*.

AWI'S WOOL RESOURCE CENTRE TAKES CENTRE STAGE

AWI's Wool Resource Centre in Hong Kong has graced the covers of two magazines recently, highlighting the versatility of Merino wool and also gain celebrity endorsement.

AWI's Wool Resource Centre is a multi-functional hub which has quickly become a global hub for the textile and apparel industries seeking knowledge and support. Since opening its doors in April 2016, it has welcomed more than 3,000 visitors – from global brands such as Hugo Boss and GAP to key regional brands and industry groups such as Li & Fung and the Hong Kong Apparel Society.

Educational institutions (see opposite page), international government bodies and Australian woolgrowers have also walked through the doors of the Wool Resource Centre, attending AWI-run events and also hosting wool-related events of their own.

HIGH PROFILE PHOTOSHOOTS

Recently, popular celebrity and singer from Hong Kong, Denise Ho, visited the Wool Resource Centre for a photoshoot and interview with *Lifestyle Journal*. The photo series saw her showcase the latest luxury wool-rich winter outfits from Louis Vuitton, Fendi and Céline, highlighting the natural beauty of Merino wool.

"Denise's photoshoot at our Wool Resource Centre graced the cover of *Lifestyle Journal*," said AWI Hong Kong Country Manager Alex Lai. "We took the opportunity to introduce her to the natural benefits of Merino wool and showcased the latest innovations the AWI technical team has been working on. She was so impressed by the fibre's versatility she shared images and information on her social media channels to her 250,000 followers."

A second high-profile photoshoot has also taken place at the Wool Resource Centre, this time with lifestyle publication *U Magazine*. The photoshoot was featured on the magazine's cover and focused on dance and activewear, featuring a local ballet dancer and young artist – both wearing items from The Woolmark Company x Lane Crawford Fitness Fashion collection, with pieces designed by sports brands Particle Fever and Helen Lee.



Top: A photoshoot at **AWI's Wool Resource Centre** featured in lifestyle publication *U Magazine* showcasing wool dance and activewear.

Right: **Wool footwear**, developed by AWI's technical team, that was featured on some of the pages of the photoshoot.

WOOL FOOTWEAR

Also featuring in the photoshoot is the latest in wool footwear – shoes that enhance the fibre's natural properties whilst constructed in a way to aid performance. AWI's technical team has been working to create shoes that are not only comfortable and allow your foot to breathe, but are also resistant to odour and wick away moisture.

Working closely with leading knitting machine manufacturers – such as Shima Seiki, STOLL and Santoni – AWI has created several footwear prototypes using advanced wool yarns to enhance the inherent benefits of the fibre. For example, by combining yarns

together and 3D knitting, the entire upper can be free of cutting and sewing. Comfortable for wearing next to skin by using a 100 per cent Merino wool yarn as an inner surface layer, the latest spinning technology helps to knit the fabric onto the outer face of the shoes' upper, enhancing the abrasion resistance.

Australian woolgrowers visiting Hong Kong are welcome to visit the Wool Resource Centre and utilise it as an office space for meetings or presentations.

MORE INFORMATION
HKresourcecentre@wool.com



The Origarmet team of **Sivaan Walker, Isabella Worsley, Clive Chen, Robert Sloan** and **Neelam Gopalani** with their completed wearable technology at **AWI's Wool Resource Centre in Hong Kong.**

TECHNOLOGY EMBEDDED WITHIN APPAREL

24 UNSW students visited Hong Kong, Beijing and Shenzhen last year to design a range of wearable technology prototypes in collaboration with Chinese manufacturers and students.

Technology is evolving at a rapid pace. Mass markets are now beginning to adapt and transition from portable devices (such as mobile phones and tablets) to wearable devices (such as smart glasses and motion sensors).

The next step is the incorporation of technology into the very fabric of clothes. Obvious applications include health monitoring, sports training, military tracking and innovative fashion. However there are many more applications waiting to be discovered.

Always keen to be at the forefront of new opportunities for wool and encourage innovative thinking, AWI through its marketing arm, The Woolmark Company, was involved in the 2017 HIF Cloud program, run by the University of NSW (UNSW). During the program, 24 UNSW students travelled to Hong Kong and China in November with the aim to design futuristic prototypes for the next generation of wearable technology.

The 20-day China experience began for the UNSW students in Hong Kong with a series of HIF Cloud workshops with students from partner universities Hong Kong Polytechnic University, City University of Hong Kong

and Queensland University of Technology. It brought together varied disciplines – including textiles, computer science and engineering – and international cultures.

The program saw students working directly with manufacturers, giving the artists and designers easy access to supply chains, tools and materials such as hardware, 3D printing transformers and electronics.

“We need to design technical wearables to help adapt to the constant changes to our environment,” said Dr Patricia Flanagan, UNSW Art & Design lecturer and program coordinator. “The program challenged students to work across disciplines and cultures and envision what wearables could eventually look like.

“The Chinese wearable technology market is growing so quickly that the students had greater access to electronics and tech manufacturers. Designing in China also meant the students had a platform for broader debate around the future of wearable technology. Many of the pieces created by the students were speculative, designed to generate conversation.”

SUPPORT FROM AWI

Prior to the trip to China, the UNSW students visited the AWI office in Sydney, in June, where they were taught about wool and shown the latest in wool product innovations and the some of the world's best wool fabrics in AWI's The Wool Lab. The students said it opened their eyes to the modernity and possibilities of wool.

When their overseas trip began, a presentation and launch involving 80 stakeholders was undertaken at AWI's Wool Resource Centre in Hong Kong. It brought together industry practitioners, entrepreneurs, professors and students to explore the future of wearables. Dr Flanagan said the venue met all their requirements and was especially appropriate for the Australian attendees who are so proud of their wool heritage.

The students then headed to Beijing and Shenzhen to work in small groups on their prototypes for two weeks, before returning to Hong Kong for the last day of the course where their finished prototypes were presented, again at AWI's Wool Resource Centre.

THE PROTOTYPES

Each of the students' prototypes was based on wool.

ORIGARMENT (pictured above): This garment includes a conductive thread in an embroidered pattern and thermochromatic dyes that **change colour** when the current is passed through the thread, without causing any harm to the fabric or wearer. It is also a multifunctional piece that can be worn in four different ways, for instance, a poncho or a skirt, which reduces the amount of items in a wardrobe and provides a sustainability element to the design.

TECHNO ADAPTION: An anti-smog scarf that aims to draw attention to China's ongoing air pollution crisis. The scarf has air pollution sensors that vibrate when levels get too high and servomotors that automatically signal the scarf/mask to lift over the wearer's face.

COCOON: An anti-stress meditation hood that has a camera inside to block out advertising logos and other outside stimulation. It is designed to be portable and discreet in order to create a space of reclusiveness in busy environments.

FUTURE PRIMAL: This project's garment showed visual representations of the **instinctual responses** that the body has. The students used wool because it has the natural quality of an animal but at the same time they embedded a lot of technology into it.

WANDERER: The idea for this garment was the ability to **harness energy** from the wearer's movement (of arms, legs etc) by embedding technology in the fabric and using the resultant power. Wool was ideal for many reasons including its elasticity.

The prototypes will be exhibited at this month's Sydney Design Festival. **B**

MORE INFORMATION
www.triciaflanagan.com/HIF%20Cloud

MERINOS

AS A SIMPLE, LOW COST, PROFITABLE ENTERPRISE

When Hay Plains farmer Ian Shippen drifts off to sleep each night, he rests easy, knowing his sheep will have grown him seven more bales of wool by the morning. It's a comforting thought for the passionate Merino producer, who has poured over the sums for many years and worked out early in his career that wool is a consistent winner.

Averaged over 52 weeks, the Shippen family's 44,000 self-replacing Merino flock fill around seven bales per day, essentially culminating in more than 2,600 bales per year and a very efficient operation.

It's always been about getting the most from their Merinos for Ian and wife Camilla, who are big supporters of the Australian Association of Stud Merino Breeders' (AASMB) latest Breed More Merino Ewes campaign.

In order to build their own Merino ewe numbers, the Shippens have spent many years gradually expanding their enterprise through buying and selling property, taking some big risks and shifting further afield from irrigated areas to more pastoral plains.

From the very beginning of their farming career, the Shippens wanted to run a thriving large-scale Merino operation and set about building that dream by initially purchasing the modest 1,821ha family farm 'Banyandah' from Ian's parents.

They were young, enthusiastic and driven to succeed, eventually increasing their landholding to its current total of 105,000ha, the majority of which is situated at Moulamein in the Hay Plains of NSW (330mm average annual rainfall), with 5,700ha of it located at Wagga Wagga (500mm average annual rainfall).

"When I left school I did a lot of sheep husbandry around the place and got a feel for what makes a good Merino," Ian said.

"The bottom line was we wanted to run a profitable Merino operation, so we took some big risks to do that. We bought and sold a lot of country, grew rice, traded water licences and expanded into predominantly pastoral areas.

"We enjoy the challenge of trying to better ourselves and find more ways to improve and breed a profitable sheep each year."

Ian and Camilla Shippen

"There's no exact science to breeding top quality wool on sheep, but everyone seems to be looking for a computer program to find the perfect formula. You need to physically look at, touch and closely study thousands of sheep and ask the question, what is a productive sheep?"

"There's a lot of knowledge and skills disappearing from the wool industry along with our older generation of sheep farmers, and we really need to tap into that before all of that knowledge is lost.

"I have been very fortunate to learn a lot of what I know about sheep from the older generation."

So much so, that when Ian purchased a retiring Bob Simpson's sheep back in 2001, the two like-minded producers realised they shared the same vision of a productive and profitable Merino, and Mr Simpson has classed the Banyandah flock ever since.

KEEPING A SIMPLE BUT STRICT ANNUAL SCHEDULE

When asked about the intricacies of his Merino operation, Ian said he keeps it very simple, only handling his flock of 30,000 Merino ewes at Banyandah three times a year, and running to a strict annual schedule.

He has a similar approach to the additional 14,000 Merino ewes residing at the Wagga Wagga property, consisting of 5-year-olds and overflow younger ewes that are joined to Poll Dorset rams.

Ian's golden rule is to run his sheep program to a precise calendar, kicking off between Christmas and New Year's Eve, when his rams are joined with the ewes for a 14 week mating period.

The longer than usual joining works within this system, as the Shippens pregnancy scan the ewes in April, while simultaneously removing the rams.

Those ewes that scanned empty are then pregnancy tested six weeks later, and Ian said around 50% of those late joiners scan pregnant.

When the later lambs arrive, they are weaned quite early and sent to the Wagga Wagga property to grow out, in an effort to let the mothers recover and fall back into line with the main ewe mobs for the next joining.

Rams are bred on-farm as part of the Shippen's Merino stud, which consists of 3,500



BREED MORE MERINO EWES

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

SUPPORTED BY



ewes from around six different families, with fresh bloodlines arriving annually after Ian purchases three or four new sires.

Those April-scanned ewes achieve between 90-95% conception rate, and of those scanned ewes, their lambing percentage consistently reaches between 120-125%.

During the last week of July, the second big sheep husbandry event on the Shippens calendar occurs when the ewes and lambs are brought into the yards to undertake several jobs all at the one time, which includes mulesing and marking the lambs and crutching the ewes.

The third and final event occurs in the third week of October, when the gigantic task of shearing 55,000 grown sheep, 40,000 lambs across all of Ian and Camilla's operations gets under way.

A TRUE WOOL ENTHUSIAST

The scale of the event does not intimidate Ian, a true wool enthusiast, who revels in watching his 21 micron wool clip be shorn and packed into more than 2,600 bales.

"Wool is very important to our operation and making our numbers work," Ian said. "Fifty per cent of our gross profit is attributed to wool, and we sell 40,000 sheep a year to make up the remaining fifty per cent of our income.

"I'm very passionate about wool; you really can have a profitable dual-purpose animal, and that is the Merino sheep.

"First and foremost, when we select our breeding stock, we look for size and staple length. I love big back ends on sheep, because it gives you another kilo or so of wool without compromising fertility, and that is the key.

"Merinos are a simple, low cost, profitable operation."

Ian and Camilla Shippen

"What fertility and wool cut comes down to is keeping your ewes in good condition, and that means feeding them in February on the assumption that autumn is going to fail.

"We budget on spending \$5 a year per ewe on feed, just to be prepared for the lulls.

"That's also why lambing percentage has never been an issue for us, we've always worked on being proactive rather than reactive when it comes to feed supply and ewe condition."

Ewes in good condition inherently produce more healthy lambs, but also plenty of top quality wool, so when Ian talks about wool characteristics, he looks for a big, bold crimping, free-growing fleece with plenty of lustre.



In October the gigantic task of shearing 55,000 grown sheep and 40,000 lambs across all of Ian and Camilla's operations begins. Their 21 micron clip fills more than 2,600 bales.

LOOKING AFTER THE LAND

With the majority of their operation centred in pastoral country, the Shippens tend to understock their land, primarily suited to livestock rather than cropping.

However, to maintain the delicate synergy that exists between the natural pastoral landscape of perennial grasses and livestock, the family has sewn more than one million saltbush plants to restore health to the soil and provide an alternative feed source.

Merinos work within our environment, our natural landscape and it's about looking after our country and getting the best out of it."

Ian and Camilla Shippen

As for any future plans, Ian said their large-scale Merino operation suits their pastoral area perfectly and they won't be making drastic changes any time soon.

"I would dearly love to run a wether operation, purely to indulge myself and grow more wool," Ian said. "But I still think a self-replacing Merino flock is the most profitable operation for us, than any other breed mix.

"In the pastoral zone, we look at the production per unit, not per hectare as in the higher rainfall areas, because we have to take care of our country. The land is too fragile, so we have to breed the most productive unit we can, rather than looking at things like DSE per hectare.

"At the end of the day, we set out to breed good sheep with plenty of wool, good fertility and keep it very simple, just perhaps on a larger scale than most."



Camilla and Ian Shippen run Merinos on their 105,000ha, the majority of which is located at Moulamein in the Hay Plains of NSW.

WOOL-GROWING COUPLE'S CHANCE OF A LIFETIME

After taking part in a Lifetime Ewe Management course, the husband and wife team of John and Jenny Ridley, who run 1,550 Merino ewes on their property in the Central West of NSW, have achieved excellent productivity improvements in a very short period of time.

John and Jenny Ridley run a self-replacing Merino flock on their 1,700 hectare home block at 'Round Cowal', 60km south-west of Forbes, on the eastern side of Lake Cowal, the largest inland lake in NSW.

They currently run 1,550 Merino ewes of which 1,100 are classed and joined to Merino rams, and the remaining 450 (classed as 2nd grade) are joined to Border Leicester rams and their progeny sold at seven months of age.

Their grown ewes cut 7.3kgs of 19–21 micron wool with staple length of about 94 mm; their weaners cut 5.2kgs.

The Ridleys also have 200 Hereford cows and calves and fattening steers to 590kg, plus 250 hectares share farmed and sown to faba beans. They also own another 1,500 hectares leased out at nearby Burcher.

John and Jenny started a Lifetime Ewe Management (LTEM) course two years ago with the South Forbes Group run by trainer Megan Rogers of Sheepsmart Solutions.

Jenny had recently started helping out on the farm and encouraged her husband to attend the course. Keen to get more involved, Jenny enrolled herself too.

The South Forbes LTEM Group was established after a previous attendee of one of Megan's LTEM groups suggested to woolgrower Sharon Maguire of nearby 'Coo-ee' that she and her husband Kevin should do the course. So, rather uniquely, with Jenny and John Ridley and also Sharon and Kevin Maguire doing the course, there were two husband and wife combinations in the group.

Megan said that, as the trainer, she enjoyed the fact that Jenny and Sharon were interested and proactive.

"The main reasons for them joining the course were to gain some increased knowledge and support their husbands in improving their sheep productivity; their participation no doubt allowed a more informed and detailed discussion to take place between husband and

wife about sheep matters," Megan said.

"They were open and frank in their approach towards learning and asking questions, and the other participants were very comfortable with them being in the group."

ABOUT LIFETIME EWE MANAGEMENT

The LTEM course, supported by AWI, aims to increase producers' understanding of the influence of ewe nutrition and management on overall reproduction rates and lamb and ewe survival. Producers develop the skills to manage their ewes to achieve condition score targets and explore the economics of supplementary feeding and pasture management to review stocking rates.

LTEM groups meet six times in the annual sheep calendar during a period of 12 months. The course is very hands-on, being based in the sheep yards, shearing sheds and paddocks of participating woolgrowers, which enables participants to share and learn from



John and Jenny Ridley, with their son **Sam**, checking the condition score of their ewes. As a result of John and Jenny doing the **Lifetime Ewe Management** course, the Ridleys now regularly condition score their ewes.

one another.

LTEM was developed using research outcomes of the AWI-funded Lifetime Wool project (lifetimewool.com.au), which ran from 2001 to 2008, and involved growers and researchers in WA, Vic, NSW, and SA.

LTEM BENEFITS FOR JOHN AND JENNY

Until John and Jenny started the LTEM course, they had an emphasis on determining whether their ewes were 'wet' or 'dry' at marking time. They also had a very long joining period of about 12 weeks, taking the rams out at shearing.

John and Jenny decided to adopt LTEM principles whilst still doing the course. They took the rams out earlier and scanned for the very first time, going all out for multiples.

As a result of doing the LTEM course, the Ridleys now regularly condition score their ewes, scan for multiples and feed them according to their pregnancy status, and lamb down their ewes in small mobs. They continue to wet and dry their ewes at lamb marking and make culling decisions according to rearing capability.

"As a consequence of the tight joining, scanning for multiples and lambing in small mobs, we marked a much higher percentage of lambs and scanned a low percentage of dry ewes," John said.

"Our classed ewes now wean 105% lambs from ewes joined, and our Merino twins marked 168% with 84% survival.

"Our dries are now really low in all our Merinos as well – our maidens scanned only 4% dry – illustrating that our improved management has delivered the results we were after."

Jenny said one of the key benefits of the course was learning the consistency of condition scoring their ewes on a regular basis.

"We focused on maintaining good condition scores of 3 and keeping condition scores as high as practicable for those key times of stress for the ewes, such as joining, shearing, lambing, droughts and floods," Jenny said.

"The course emphasised accurate feed budgeting to match pasture quality and quantity with the ewes' requirements – and helped us calculate the amount of supplementary feed needed for the sheep.

"Scanning ewes for pregnancy status and then drafting them into appropriate mobs has also proven important as we have applied different management strategies for each of the different mobs – dries, singles and twins."

The Ridleys added that fox baiting continues to be a very worthwhile activity in their area, to reduce lamb fatalities, and give great returns.



Jenny showing her son Sam how to condition score ewes, with Jenny using the **Lifetime Ewe Management smartphone App** developed by AWI (available free from the iTunes Store and the Google Play Store).

"There is no doubt about the benefits of removing foxes; we need to save only four or five lambs through the whole flock to pay for the baits," John said. "Once foxes are eliminated, the ewes lambing at night are completely calm, sitting down and completely relaxed with zero disturbance."

FUTURE DIRECTION OF ROUND COWAL

Looking to the future, John and Jenny say they aim to increase their Merino ewe numbers from 1,550 to 2,200 head, selling down the 2nd grade ewes and building up the flock numbers to all classed ewes.

They will continue to run 200 cows but will sell steers at lower weights (480-500kgs) to allow them to run more sheep.

They also plan to move out of cash cropping by the end of 2018 and increase pasture cropping to enable increased stocking rates and maintain an appropriate condition score for their ewes.

"Ultimately, we plan to increase the weight of our annual wool cut per head of sheep, while maintaining our micron and staple length, and maintaining or improving our wool quality," John said.

"We want to maintain and improve the brightness of our wool. The wool from the Egelabra bloodline we use is renowned for its

brightness and ability not to discolour during wet summers, and therefore does not suffer from fleece rot problems which reduces flystrike issues.

"We like the good blocky wool tip which forms a barrier against the elements, helping to protect against dust and weather. We cull ewes that are open wool sheep."

ONGOING NETWORKING

Following the completion of their LTEM course, the members of the South Forbes LTEM group have kept in touch through further networking and learning opportunities in their area – including a ladies' discussion group, where ideas are shared with other members about how to make their businesses more efficient.

"We are trying to streamline our production records," Jenny said. "We are also interested in learning more about the business records, including enterprise analysis, where we can analyse income and expenses on a per hectare basis, and learn more about overheads, gross margins and profit and loss within our business."

MORE INFORMATION

For more information, or to set up or join an LTEM group in your local area, call RIST on freecall 1800 883 343 or visit www.rist.edu.au/lifetime-ewe-management
AWI: www.wool.com/LTEM

RAMPING UP REPRO WORKSHOP

A new hands-on workshop is being rolled out across the country to give sheep and wool producers the skills to **improve ram health, performance and longevity in their sheep breeding enterprises.**

Rams are a considerable investment for a woolgrower's business, with the rams' performance impacted by management and preparation for joining.

To help ensure that woolgrowers get the most from their rams, AWI in partnership with Zoetis Australia has developed a new hands-on workshop called RAMping Up Repro.

The half-day workshop is being rolled out across the country, in conjunction with leading deliverers, via AWI's state networks.

AWI Manager, Woolgrower Education & Capacity Building, Emily King, said the RAMping Up Repro workshop is designed to give producers the skills across the key components of what drives ram performance, to help improve the profitability of woolgrowers' enterprises.

"RAMping Up Repro covers the importance of ram health, pre-joining management, sound purchasing decisions and how best practice ram management impacts on reproductive health," she said. "The workshop provides a hands-on guide to making ram examination practical and achievable and helps woolgrowers manage their ram teams through joining with confidence."

RAMping Up Repro workshops were piloted early last year by leading sheep veterinarian Dr Matt Playford in southern NSW and by Dr Paul Nilon in Tasmania. After good feedback from the producers who attended, AWI decided to roll them out across Australia.

"We held six pilot workshops last year and the response was very good, especially because it's hands-on, which builds producers' confidence in managing their rams more effectively before and during joining," Emily said.

A series of RAMping Up Repro train-the-trainer events aimed at sheep veterinarians was subsequently held across the country in August at Bendigo, Dubbo, Hamilton, Murray Bridge, Clare, Kojonup and Albury, equipping about 80 veterinarians and providers to run the extension workshops.

AWI's state network in NSW, Sheep Connect NSW, has begun rolling out RAMping Up Repro workshops for woolgrowers in the state. Sheep Connect NSW coordinator Megan Rogers says RAMping up Repro is a

very practical workshop to assist with best practice ram preparation on commercial properties.

"As we all know, rams have an important function, and they require careful management and preparation that starts a few months out from the start of joining. The workshop focuses on timing of preparation of rams, as well as the practical aspects of preparing rams for joining," she said.

"Topics covered include nutrition and condition, animal health and management, checking the 4Ts (teeth, toes, tackle and testicles), managing shearing, assessing for structural soundness, and all things in between.

"The beauty of this workshop is that all participants are able to participate in the practical sessions, meaning that they are more confident in using this management on

their own properties with their own sheep. We know that hands-on learning is very valuable in this context, and these events are an excellent example of using a practice setting to improve the skills and confidence of the attendees.

"The events run for a good half day, are held on-farm and are run by deliverers who are local and experienced."

The RAMping Up Repro workshops complement AWI's popular Lifetime Ewe Management course which helps woolgrowers manage the nutrition of their breeding ewes and maximise reproduction efficiency (see previous page). **B**

MORE INFORMATION

For more information on upcoming RAMping Up Repro workshops in your area, contact your AWI state network coordinator (see opposite).



Left: Veterinarian **Dr Matt Playford** demonstrating ram testicular palpation at a RAMping Up Repro workshop. Right: Checking teeth as part of the 4Ts assessment (teeth, toes, tackle and testicles).

FAST FACTS

- 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 listed right.

AWI GROWER NETWORKS



PRODUCERS LEARNING FROM PRODUCERS



STATE	GROWER GROUP	REPRESENTATIVE	CONTACT DETAILS
NEW SOUTH WALES	SHEEP CONNECT NSW	Megan Rogers	0427 459 891 admin@sheepconnectnsw.com.au www.sheepconnectnsw.com.au
VICTORIA	BESTWOOL/ BESTLAMB	Lyndon Kubeil	(03) 5761 1649 lyndon.kubeil@ecodev.vic.gov.au www.agriculture.vic.gov.au/bestwool-bestlamb
SOUTH AUSTRALIA	SHEEP CONNECT SOUTH AUSTRALIA	Ian McFarland	0437 659 353 ian.mcfarland@sa.gov.au www.sheepconnectsa.com.au
WESTERN AUSTRALIA	THE SHEEP'S BACK	Andrew Ritchie	(08) 9736 1055 andrew@sheepsback.com.au www.sheepsback.com.au
QUEENSLAND	LEADING SHEEP	Nicole Sallur	(07) 4530 1270 nicole.sallur@daf.qld.gov.au www.leadingsheep.com.au
TASMANIA	SHEEP CONNECT TASMANIA	James Tyson	0409 006 774 james.tyson@utas.edu.au www.sheepconnecttas.com.au

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CLOSING THE AUTUMN FEED GAP



Tammin woolgrower **Rodney Stokes** in his **Anameka™ saltbush** plantation.

Four years after the release of a new and easily digestible saltbush variety, woolgrowers are making otherwise unproductive agricultural land profitable, particularly in mixed cropping and livestock businesses.

Filling the late summer/early autumn feed gap is a constant challenge for woolgrowers in dryland farming regions, particularly Western Australia's central wheatbelt.

With limited nutritional value available in a dry stubble paddock, purchasing and planning for alternative feed sources such as hay and grain can be costly and unpredictable.

Many woolgrowers are turning to perennial plants, such as Anameka™ saltbush, to close this feed gap and provide an alternative source of nutrition for their livestock.

Commercialised by CSIRO in 2014 after 10 years of research, Anameka™ has been ticking many boxes for woolgrowers, being a successful feed source in both mid-summer and autumn when there is a feed shortage, and also used in the lead up to seeding time when sheep flocks are relocated out of grain paddocks.

Tammin woolgrowers Rodney and Janet Stokes planted 60 ha of salt-affected land to Anameka™ saltbush almost four years ago, not long after it was made commercially available. Within six months, their Merino-based flock was happily grazing on the bushes.

Rodney believes the plantation has been such an effective strategy for his business that he is planning to double his area of saltbush plantings in the coming 12 months.

He estimates his saltbush plantation provides

approximately five kilojoules of energy to each sheep daily.

"Each sheep requires a daily intake of around 12-13 kilojoules, or up to 28 kilojoules during lambing, to stay in good condition, meaning we still need to supplement the feed throughout autumn, usually with hay and grain," he says.

"But having the saltbush available as another feed source is an important tool for our sheep business.

"It also allows us to free up paddocks we need to spray or clean up in the pre-seeding period."

The Stokes' farm is approximately 180km east of Perth, where the saline Mortlock River riverbed dominates the landscape. Large areas of the property will never be productive cropping land because of this dried up river system.

But it's the perfect environment for the Anameka™ saltbush, and Rodney's plantation is a green healthy oasis against the dry stubble in the dusty paddocks surrounding it.

The region often receives less than 300mm annual rainfall, and this plant appears to not only survive, but thrive in the tough conditions.

Rodney says the plantation is a long-term strategy, with each plant costing around 75 cents.

"It is an expensive investment initially but over five or six years, we believe we will be in front financially given that saltbush will fill

a significant percentage of this autumn feed gap," he says.

"But that aside, this area of land is unproductive for anything other than bluebush or saltbush, and so it didn't take much convincing for us to plant the area out to the new Anameka™ variety."

Typically, 800-1,000 plants are required per hectare, but this rate is often lower in the more saline areas.

With a tractor drawn mechanical tree planter,



The **Anameka™ saltbush**. It ticks all the boxes for digestibility, palatability and bio mass.

up to 10,000 seedlings can be planted in a day, utilising two people.

The bushes are planted in rows approximately four metres apart, with a gap of around two or three metres between each plant, equating to around 600 plants per hectare.

According to CSIRO Principal Research Scientist Hayley Norman, the uptake of this new variety has been significant right across Australia, not only by woolgrowers with saline affected land in lower rainfall zones but also by farmers with non-saline soils.

Hayley says the Anameka™ variety was selected for improved palatability and digestibility from a collection of 60,000 plants.

"Anameka™ was selected by both scientists and our Merino sheep taste testing teams in Tammin (WA), Condoblin (NSW) and Monarto (SA)," she says.

A recent CSIRO experiment has demonstrated that a diet of around 25% Anameka™ saltbush leads to a 25% increase in clean wool growth.

"This may be due to the high crude protein and sulphur in Anameka™," Hayley says.

"Anameka™ improves profitability because it enables poor-quality crops and pasture residues to be utilised, and this reduces the need for supplementary feed (up to 60% per pasture ha).

"Anameka™ also enables farmers to rest pastures from grazing over winter, leading to improved pasture productivity.

"The benefits of Anameka™ are greatest in poor seasons, so it's a good risk mitigation strategy."

Hayley and her team are now investigating ways to halve the up-front establishment cost of these high value shrubs, which may be a barrier to adoption for some growers.

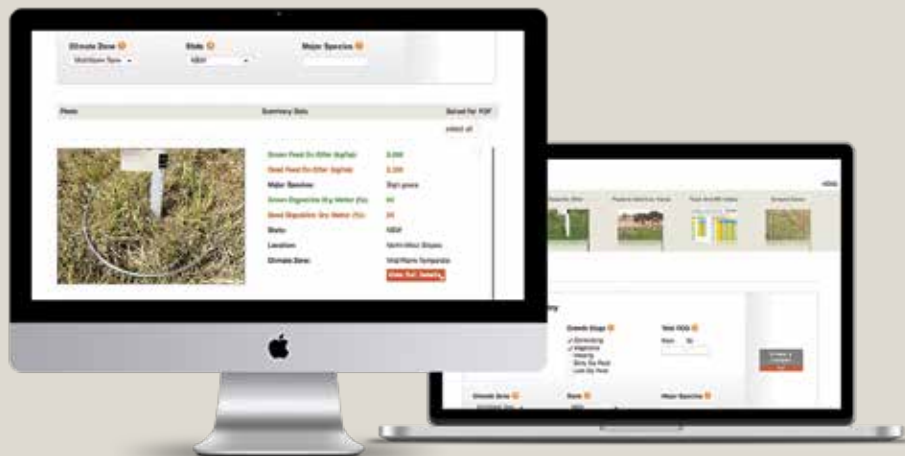
The development of the Anameka™ variety was run by scientists from CSIRO, SARDI and the NSW Department of Primary Industries working through the Future Farm Industries CRC, of which AWI was a partner. The variability in nutritional value of saltbush, and the ability to select better varieties, was first noted during CSIRO research as part of the AWI's Land, Water and Wool project.

Chatfields Tree Nursery in Tammin, Western Australia, has the exclusive rights to propagate and supply the Anameka™ variety. Chatfields delivers Anameka state-wide and posts or couriers to the eastern states. **B**

MORE INFORMATION
Contact Chatfields on
info@chatfields.com.au or
www.chatfields.com.au

FEED ON OFFER PHOTO GALLERY

AWI has funded the inclusion of an extra 210 photos in its web-based photo library of FOO standards to help producers better assess Feed On Offer (FOO) in their pastures.



Example results containing pasture images and corresponding nutritional information from the **online Feed On Offer photo library** available via www.wool.com/foo. You are able to download the search results as a PDF document directly to your computer.

Feed On Offer (FOO) is the amount of pasture in a paddock at any given time, measured in kilograms of dry matter per hectare (kg DM/ha). FOO required to achieve production targets are available for different types of livestock.

Given the influence of nutrition on the performance of sheep, properly assessing FOO is a skill that can boost on-farm productivity by enabling better decisions to be made regarding allocation of stock to paddocks or supplementary feeding.

To help producers to better assess FOO in their pastures, AWI, has recently been updated with a further 210 photos a web-based photo library of 500 FOO standards. This online photo library, now containing 650 images allows producers to estimate the FOO and nutritive value of grazed pastures by comparing their own pastures to reference photos in the online library.

Recent additions have come from the Central West Slopes and Plains (NSW), Southern Wimmera (Vic), Great Southern (WA), Mid North (SA), South West Slopes (NSW), Maranoa (Qld), North West Slopes and Plains (NSW) and the Snowy Mountains (NSW). These are in addition to the 500 collected across Vic, NSW, Qld, WA and SA in 2013.

Every photo comes with a full set of nutritional information including protein, digestibility, metabolisable energy (ME) content, legume content, ground cover and pasture height.

FOO is central to the skills developed through the Lifetime Ewe Management (LTEM)

program. The photo library can be used in conjunction with the LTEM feed budgeting tables available at www.lifetimewool.com.au. The library is searchable which allows users to access photos relevant to their region. It covers a wide range of production zones, including cool climate, Mediterranean, warm temperate and pastoral species.

The 650 available records were collected by experienced agronomists across Victoria, NSW, Queensland, WA and SA, from typical pastures in each region in summer, autumn, winter and spring with a range of FOO values at each harvest. **B**

MORE INFORMATION
www.wool.com/foo



To help producers access key information from the photo library, AWI is also making available at www.wool.com/foo **PDF documents that have already been specially prepared** for a range of 53 key state and climatic regions and pasture species. Pictured is a page from the 8-page 'NSW Summer' PDF document.

WILD DOG CONTROL SUCCESSSES IN NORTH-EAST NSW



AWI's provision of funding during the past three years for a wild dog facilitator in the north-east of NSW is helping to reduce dog predation in the region.

AWI-funded wild dog facilitator for north-east NSW, **Dave Worsley**, based at Armidale. *PHOTO: Fairfax Media*

The wild dog facilitator position was set up three years ago in the north-east of NSW to assist woolgrowers and other key stakeholders to work together to lessen the impact of devastating livestock predation by wild dogs in the area.

The position is helping to reduce these attacks and therefore improve on-farm productivity, rural community wellbeing and rural biodiversity.

For the past three years, the position was funded by AWI and managed by the Invasive Animals CRC in partnership with AWI, NSW Department of Primary Industries, NSW Farmers, Northern Tablelands Local Land Services and local Landcare. AWI is funding and managing, directly, the wild dog facilitator for another three years.

THE FACILITATOR ROLE

The north-east NSW position complements the AWI-funded wild dog coordinators currently operating in western NSW, Victoria, Queensland and Western Australia.

Wild dog coordinators facilitate collaboration between landholders (in new or existing wild dog management groups) and with other key stakeholders, locally and across shires. They also help coordinate on-ground wild dog control activities. This is vital, but can be challenging for landholders without the external help provided by an

independent coordinator.

The coordinators use a 'nil-tenure landscape level' approach with local communities that highlights the benefit of focusing on the 'common problem' rather than attributing ownership of the wild dog problem to individual land managers.

This approach encourages good working relationships between private and public land managers. More importantly, it can have a positive impact on the emotional well-being of farmers in the area who now feel that something positive is being done to address the constant financial and emotional impact of wild dogs.

The wild dog facilitator for north-east NSW is Dave Worsley, based at Armidale. Dave has been a livestock farmer in the Northern Tablelands for more than 20 years which, backed by a degree in Agriculture, has given him a very sound knowledge of agricultural practices and wild dog control in the region.

Dave took on the new wild dog facilitator role in May 2015 and quickly started meeting with landholders and stakeholders in the region to help them improve communications and develop collaborative plans.

WILD DOG CONTROL MANAGEMENT PLANS

Dave says his first year in the role revolved

largely around the Armidale region dealing with massive wild dog issues, mainly to the east.

"At the commencement of the role, there weren't any wild dog and fox management plans in the Northern Tablelands signed off by livestock producers and other stakeholders such as the National Parks and Wildlife Service (NPWS) and Local Land Services (LLS)," he said.

"However, there are now 28 new signed management plans and five final drafts in the Northern Tablelands region in the process of being signed. These plans commit all parties to five years of control at a minimum level of the 2017 effort (see box on opposite page).

"This is a substantial achievement, particularly given the turbulent history of wild dog management in the Northern Tablelands. It has been hard to account for and overcome entrenched historical difficulties and the need for very specific wording to satisfy all parties."

Collaboration between stakeholders – although vital – can be challenging without the external help provided by an independent facilitator, as was the case at Wongwibinda – see the article in the December 2016 edition of *Beyond the Bale*.

"One of my first tasks was to help move forward with development of the

Wongwibinda Wild Dog Management Plan – involving the Wongwibinda, Chandler River and Jeogla wild dog associations – and seek all stakeholders’ agreement with the Plan. This involved negotiating difficult historical issues and driving negotiations,” Dave said.

“These three plans took 12 months of persistent negotiation and consultations with all the stakeholders involved and required significant effort to get agreement prior to being signed off. The benefits were, however, extraordinary.”

This sentiment is echoed by Janelle Brooks, the NPWS area manager for the Dorrigo Plateau during the development of the Wongwibinda Wild Dog Management Plan.

“By approaching his role in such an independent way, Dave made a real difference in building trust back in the process,” she said. “It is testament to the value of the role and Dave’s approach as a neutral facilitator that implementation of these three wild dog management plans continues to be successful in minimising stock losses and effectively coordinating control measures across tenure.”

General Manager of the Northern Tablelands LLS, Paul Hutchings, also expresses strong support for the outcomes achieved by the wild dog facilitator position.

“The wild dog facilitator has been a great success in our region and has contributed significantly to the strategic and operational management of wild dogs in the Northern Tablelands,” he said. “I look forward to an ongoing working relationship with AWI and the wild dog facilitator to address the ongoing

impacts of wild dogs in our region.”

Dave added that one of the most significant achievements of his role has been the escalation of Forestry Corporation to an active member of the wild dog community. “This year they committed to pay for all costs of aerial baiting on their land for the first time and have gone on to sign up to management plans to maintain the level of commitment for the next five years.”

To increase the coverage of nil-tenure planning, Dave has also been involved with management plan development in the neighbouring Hunter Valley, North West, Central West and North Coast LLS regions.

“For example, my intervention on behalf of the Hernani and Bostobrick associations led to the instigation of aerial baiting in the area after a break of more than 20 years and a signed management plan through facilitated sessions,” Dave said.

WILD DOG CONTROL GROUP SUPPORT

As well as helping in the development of strategic wild dog management plans, Dave has also assisted wild dog control groups in the region with on-going long-term wild dog control. During Dave’s tenure, five new wild dog control groups have been established in the region, with further new groups planned.

He has been extensively involved in organising and running field days, training and workshops. He has also provided wild dog control groups with assistance in writing funding applications for training, awareness

and resources such as cameras, freezers, drying racks, Canid Pest Ejectors (CPEs), traps and trapping support.

Another key example of Dave’s support for control groups is his assistance in coordinating aerial baiting. This year’s aerial baiting program on the Northern Tablelands was the biggest ever and has continued the trend of rapid expansion and demand from landholders. For the first time ever, aerial baiting ran in one continuous program from North West LLS into Hunter, Northern Tablelands, across into North Coast then back into the Northern Tablelands and all the way to the Queensland border.

There were an additional three participating associations (26 up from 23), 396 individual participating producers (an increase of 83 or 26%), 2,298km of private bait lines (up by 494km or 27%) with 91,932 baits (up by 19,774 baits or 27%), 915km of bait lines on National Parks’ estate (up by 147km or 19%) with 36,608 baits (up by 5,909 or 19%), 29 National Parks were involved in the program, and 418km on Forestry Corporation estate.

For the past two years, Dave has edited and navigated in the air all the bait-lines for the Northern Tablelands, North Coast and Upper Hunter regions. “It has given me great credibility within the dog-affected community and a far greater understanding of the nature and extent of the issues we face,” he said.

The CEO of Fleet Helicopters of Armidale that undertakes the aerial baiting, Mike Watson, said he believes that Dave acting as navigator for the aerial baiting program has provided the single biggest benefit of any change to the program during his ten-year involvement. “The benefits are related to the overall safety of operations, the general logistical organisation and planning leading to increased efficiencies and the wonderful ability Dave has surrounding landholder engagement to build the profile of the program,” he said.

IMPORTANCE OF TEAMWORK

“I have been very lucky to work within a great team environment which make things possible and I acknowledge their support and input because every achievement is a team effort,” Dave said. “In particular: Ian Evans (AWI), Greg Mifsud (Centre for Invasive Species Solutions), Peter Fleming and Guy Ballard (NSW DPI), Mark Tarrant and Melissa McLeod and staff (Northern Tablelands LLS), National Parks and Wildlife Service and Forestry Corporation – and of course the many woolgrowers that I am here to support.”

Communication and support among the other AWI-funded wild dog coordinators has also been a highlight for Dave, and although they all work remotely they keep in regular contact and support each other. “It would not be possible to function in this role without the network,” he added.

WHAT THE WILD DOG MANAGEMENT PLANS MEANS

- Commitment by NPWS to source funding and pay for all control on National Parks’ estate for the next five years at minimum 2017 levels.
- Commitment by Forestry Corporation to source funding and pay for all control on Forestry estate for the next five years at minimum 2017 levels.
- Commitment by all wild dog control associations and Northern Tablelands LLS to maintain control on private land at minimum 2017 levels for the next five years.
- Commitment by Northern Tablelands LLS to source funding and pay for all control on private land, including the supply of meat to associations unable to supply their own or reimbursement to those who do at \$2.30/kg for the main autumn campaign (both aerial and ground) for the next five years.
- Commitment by Northern Tablelands LLS to assist associations and coordinate aerial baiting for the next five years.
- A standardised nil-tenure process for dealing with reactive control where all parties participate in baiting and other control activities.
- Supply of a professional wild dog controller to landholders adjoining a National Park or State Forest when predation events occur.
- Key contacts nominated by LLS, NPWS and Forestry Corporation to expedite any reactive work and simplify planning processes.
- Agreement to share data and open lines of communication.
- A stable environment in which it will be possible to run sheep with the confidence that wild dogs are being controlled across the entire region and there will be no reduction or withdrawal of effort by any party for at least five years.

EXCLUSION FENCING ENABLING STOCK INCREASES

Woolgrower Donald Truss, who has installed a 100km exclusion fence around his property, has joined AWI's Leading Sheep grower network in Queensland so he can share his pest management experience with other producers.

After erecting more than 100km of exclusion fencing, woolgrower Donald Truss from South West Queensland hopes to increase his flock from 9,000 to 11,000 head.

It's not the only positive news for the young man, who is the newest member of the South West Committee of AWI's Queensland grower network Leading Sheep. Donald, from south of Quilpie, joins six other regional producers of Leading Sheep South West, responsible for setting local priorities for the program.

He said his motivation for joining Leading Sheep stemmed from a desire to share his pest management experience and support other producers to adopt new business practices that maximise production.

"The wake-up call for my family came this time last year," he said.

"We had had a couple of good years, but wild dog numbers were high – when 10 to 20 wild dogs were being captured annually, we realised we needed to take urgent action if we wanted to maintain profitability.

"So in the past 12 months we have built 103km of exclusion fencing around the perimeter of our property and already our wild dog control

has seen a reduction in wild dog numbers."

Donald, with his wife Laura, manage two family properties, 'Boran' and neighbouring 'Wareo', with a total of 45,730 hectares of Mulga country currently carrying around 9,000 sheep and 500 cattle.

While the exclusion fencing upgrade represents a significant investment for the family, the young grazier believes it will bring major production advantages and protect his livestock for the next 80 years.

"Exclusion fencing will allow us to increase our flock size to 11,000 sheep and reduce our cattle numbers," he said. "Sheep are much more suited to the Mulga country and are a more profitable option for us.

"It has been a major financial investment in our future, but now that it is installed, I believe maintenance will be minimal and the production gains significant."

As the family business shifts its focus to increasing wool production, Donald is optimistic about the future of the Queensland sheep and wool industry.

Donald said Leading Sheep ensured producers received the latest information on industry issues, as well as advice on new practices and technologies that would lead to long-term sustainability for the Queensland industry.

"It's important that there is collaboration within the industry, and the South West committee – one of three regional committees in Leading Sheep – is working hard to ensure they understand producer issues and can provide information that improves productivity and profitability," he said. **B**

MORE INFORMATION
www.leadingssheep.com.au

Wool producer **Donald Truss** from **Toompine**, south of Quilpie, with his son **Henry** and a stretch of the wild dog exclusion fencing on his property.



POSITIVE OUTLOOK WITH 'GLENELG' FENCED

Woolgrower and Deputy Mayor of the Maranoa Region in South West Queensland, Jan Chambers, whose family completed an exclusion fence in 2016, provided her insights into wild dog control at a recent Predator Control Field Day held at Surat.

Graham and Jan Chambers are dedicated woolgrowers at 'Glenelg', just south of Mungallala on the Warrego Highway west of Roma.

Glenelg had been under increasing pressure from wild dogs, despite ongoing baiting and trapping.

Jan, in her role as councillor with the Maranoa Regional Council, had been the inaugural chair of the Maranoa Wild Dog Management Advisory Committee, a group of Maranoa graziers who make recommendations to council on wild dog control. Jan had also organised the Mungallala area aerial baiting.

In 2014 the Chambers family decided to erect their own exclusion fence, spending \$180,000 on materials. Much work was put into fence line preparation, with great importance placed on runoff diversion. The Chambers erected the fence themselves with help from their son Matthew, completing it in 2016.

Jan was among the guest speakers at a free Predator Control Field Day held in Surat on 22 November. The day was organised in partnership between Maranoa Regional Council, Balonne Shire Council, AWI's Queensland grower network Leading

Sheep and the Queensland Department of Agriculture and Fisheries.

Jan said despite limited rainfall, 2017 saw their sheep in their best ever condition at shearing.

"With the dogs we were losing a couple hundred of sheep a year," she said. "Currently our stock numbers are at 4,000 sheep and 250 head of cattle.

"Removal of the dogs has had a huge effect. The stock are calmer and we are now able to better manage grazing pressure because of the exclusion fence.

"Fencing has made a phenomenal difference to the condition of the sheep and also the amount of wool grown and the lambing we have had.

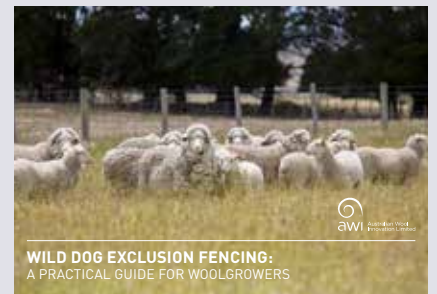
"To privately fund our own fence was the best investment we have made and should have done it many years ago."

Landholders at the Predator Control Field Day had the opportunity to talk to experts about different feral animal control methods, visit displays and demonstrations on site that included exclusion fencing (traditional and electric), fence construction machinery, baiting materials, trapping suppliers and remote cameras. **B**



Queensland woolgrowers **Matthew, Jan and Graham Chambers** with their completed exclusion fence. Their fence is being used successfully to protect their sheep and control total grazing pressure. PHOTO: Sonia Jordon.

AWI PRACTICAL GUIDE TO 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 by woolgrowers on other properties.

The 36-page 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.

To complement the AWI guide, AWI is also making available the 14-page Kondinin Group Research Report *Exclusion Fencing, Fighting Ferals* that was produced in January 2016. **B**

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.

2018 NATIONAL MERINO CHALLENGE



Registrations open in March for this year's National Merino Challenge which is being held in Adelaide. The National Merino Challenge is an AWI initiative designed to allow young people to engage with the Merino industry by developing their knowledge, skills and networks.

The 2018 National Merino Challenge (NMC) is heading to the Adelaide Showgrounds on 19 and 20 May to encourage the next generation of the wool industry.

Now in its sixth year, the annual event has provided around 500 secondary and tertiary students with the basic skills involved in the wool industry – both traditional and modern methods – as well as an understanding of the career opportunities within the industry.

Run by AWI, the two-day NMC involves presentations and demonstrations from industry professionals. Students participate in seven 'mini-challenges', testing their knowledge of Merino fleece, production, breeding and selection.

Techniques from several well-known industry initiatives, such as MERINOSELECT, Lifetime Ewe Management and Visual Sheep Scores, are used throughout the NMC, giving students a realistic and practical insight into the tools available to growers to make more informed decisions.

The NMC has two sections – late secondary and tertiary – and is open to years 11 and 12 and tertiary students, Australia-wide. The tertiary sector includes university students and those studying through TAFE

or another registered training organisation.

An NMC Industry Dinner will also be held enabling the students to spend an evening with a range of wool industry participants, from woolgrowers to wool brokers and researchers.

Emily Attard who competed last year as part of the University of Melbourne team and who won the individual award in the tertiary division said she found the NMC to be a very informative and rewarding experience.

"It is practical and hands-on, with a range of industry professionals imparting their experience and advice to students," Emily said. "It is great that AWI runs this initiative as it enables ag students to get involved in the sheep and wool industry and see the opportunities in it – there is nothing like the NMC in any other industry." **B**

MORE INFORMATION

To register for the 2018 National Merino Challenge in Adelaide or for more information, visit www.awinmc.com.au. Registrations open this month.



Students testing their skills in sheep selection at last year's **National Merino Challenge**.

AWI GRADUATE TRAINING PROGRAM APPLICATIONS

AWI is now seeking applications for the 2019 program.

The AWI Graduate Training Program is aimed at graduates from a broad cross section of disciplines who have a background in or connection with the Australian wool industry.

The 18-month program starts each year in March and provides the successful applicant with a thorough understanding of the wool supply chain from fibre to fashion.

Based primarily at the AWI office in Sydney, the graduate will also be given the

opportunity to gain a global exposure to the wool supply chain through two three-month international rotations.

Whilst in Sydney, the graduate will gain exposure to the following areas of the business:

- Sheep Production
- Woolgrower Services
- Processing Innovation & Education Extension

- Marketing (including Marketing Services, Digital, and Fashion Communications).

Applications for the 2019 AWI Graduate Training Program open on 1 April and close on 30 April. **B**

MORE INFORMATION

To apply, please select the AWI Graduate Training Program at www.wool.com/careers or apply through Seek or LinkedIn.

Woolgrowers and sheep producers are invited to attend LambEx 2018 in Perth, WA, in August.

More than 800 delegates are expected to attend LambEx, which will include informative and inspirational presentations, trade displays, entertainment and networking opportunities.

For the first-time since its inaugural event, LambEx 2018 will return to Perth, Western Australia, on 5-7 August, with Australian woolgrowers and the Australian sheep and lamb industry invited to attend.

The event is shaping up to be one of its best-ever, with an exciting program featuring a star line-up of international, Australian and local speakers who will present on a wide-range of topics within the sheep and lamb industry.

Internationally recognised CEO for The Center for Food Integrity in the US, Charlie Arnot was recently announced as a keynote speaker, discussing the importance of building trust with consumers through shared values. His presentation will also cover the role technology will play across all facets of the industry in the future.

"LambEx attracts more than 800 delegates and 70 exhibitors and is a great opportunity to promote WA's world class lamb industry," LambEx Chair Bindi Murray said.

"All sectors of the lamb industry have come together to build on LambEx's previous success and to ensure the Australian sheep and lamb industry continues its proud



Woolgrower and LambEx Chair **Bindi Murray** at the event's location, Perth Convention and Exhibition Centre.

tradition of showcasing its industry.

"Australian producers are world leaders in the production of wool and lamb and we're excited to be able to grow the event and showcase our awesome and innovative Australian sheep, lamb and wool industry."

As a major event partner of LambEx, AWI will be promoting the role of Merinos within lamb enterprises and showcasing opportunities to sheep producers who might not normally associate with Merino or wool enterprises. As Merinos account for upwards of 75% of the national flock, it is crucial to promote the value Merinos contribute to the Australian wool and sheep industries as a whole, and their importance in rebuilding the national flock.

AWI is sponsoring the LambEx 2018 GrandsLamb Dinner – an evening with great entertainment and fabulous food, which is sure to be a memorable experience for delegates.

Early bird registrations for LambEx will open in March. The two main LambEx conference days are 6-7 August with registration and the official welcome to be held on 5 August, from 4pm until 8pm. Post conference tours are offered on 8 August. **E**

MORE INFORMATION

Visit www.lambex.com.au or contact Event Organiser, Rebecca Jeisman, [AgCommunicators on rebecca.jeisman@agcommunicators.com.au](mailto:rebecca.jeisman@agcommunicators.com.au) or 08 8332 3277 to find out more.

Lambex 2018
AUGUST 5-7
PERTH, WESTERN AUSTRALIA
www.lambex.com.au

WELCOMING OUR YOUNG GRADUATES TO THE WOOL FAMILY

AWI is delighted to announce the three graduates that have been chosen to take part in the inaugural 2018 AWI Graduate Training Program. The calibre of candidates we received was outstanding, and it was an extremely rigorous process for our graduates to get through to the final stage. Congratulations to our successful graduates, who started at AWI this month.



ELLIE BIGWOOD

Ellie was born and raised on a Merino sheep farm in the Great Southern region of WA. She has just graduated with a Bachelor

of Science, majoring in Animal Science and Biological Sciences at Murdoch University. Ellie was the recipient of a \$3,000 scholarship from the Australian Government to study aspects of the agricultural supply chain in China.



BEN MADGWICK

Ben grew up on properties throughout the Liverpool plains of NSW and spent his formative years assisting his family in wool

production. Ben has graduated from the University of Sydney with a Bachelor of Design Computing and, while studying, has maintained employment related to his studies to develop his skills in the digital/marketing space.



BLAKE CHANDLER

Blake has just graduated from the University of Sydney with a Bachelor of Agriculture Economics. While completing his

degree, Blake immersed himself into agriculture. Obtaining casual employment with Hassad Australia – an international agribusiness – he spent some time in rural NSW working on Merino farms and learning about the wool industry.



FUTURE LEADERS' OPTIMISM FOR WOOL

The 23 participants at the 2018 Breeding Leadership course at Clare in South Australia.

AWI held a five-day professional development course in February for 23 enthusiastic young people working in the wool industry – the industry's next generation of leaders.

The future of the wool industry is in good hands judging by the latest group of Breeding Leadership participants.

23 wool industry representatives, from every wool-growing state, participated in AWI's Breeding Leadership 2018. Held every two years, Breeding Leadership arms the young participants – selected from throughout the wool industry, from on-farm to education and wool marketing – with the skills and tools to become better leaders.

The program develops skills and knowledge in personal leadership as well as strategic planning and team leadership. It also provides an excellent opportunity for participants to network with 22 other like-minded people from across Australia, as well as the skilled program deliverers and others from the wool industry.

Now in its seventh year, the five-day course has helped progress the careers of more than 150 young people within the wool industry, many of which hold leading wool roles today, such as 2018 WoolPoll Chairman, Syd Lawrie.

The course this year was held at Clare in South Australia. The group also toured two wool-focused businesses: Michell Wool in Adelaide and Anlaby Station near Kapunda, gaining valuable insights into their vision and business strategies.

AWI CEO, Stuart McCullough delivered a session at the event, sharing AWI's strategic direction and information on current and planned projects.

"It was great to meet these young people and speak with a room filled with optimism and

hope; I gained some great insights into their vision for the future of wool," he said.

Course participant Ross Fletcher (pictured far left above) from Walcha in NSW said Breeding Leadership had been "great mental stimulation" for him.

"It was enlightening to hear the different experiences and perspectives of the broader industry, from both the other course participants and those that we met that work in the wool industry," he said. "It has also been invaluable for me to gain a greater understanding of my personality and how that influences how I am perceived by others. I'd recommend the course to others."

Funded by AWI and delivered by Rural Directions Pty Ltd, Breeding Leadership forms a key part of AWI's growing commitment to education in the wool industry.

Other initiatives include the National Merino Challenge and support for the Hay Rural Education Program, Nuffield Scholarship, Australian Rural Leadership Program, Horizon Scholarship, Monaro Farming Systems traineeship program, Young Stud Masters Muster at the Australian Sheep & Wool Show, University of New England Farming Futures and Farm Business Boot Camp to name a few.

MORE INFORMATION

www.wool.com/breedingleadership.
Hear more from the attendees in Episode 30 of AWI's The Yarn podcast at www.wool.com/podcast



2018 BREEDING LEADERSHIP PARTICIPANTS

NEW SOUTH WALES

Alexandra Cesnik	Gumly Gumly
Jayde Cluff	Deniliquin
Roy Elliott	Eumungerie
Jock Fisher	Gulgargambone
Ross Fletcher	Walcha
Ally Jaffrey	Crookwell
Henry Ridge	Sydney
Mark Scott	Sydney

QUEENSLAND

Benn Wilson	Dirranbandi
-------------	-------------

SOUTH AUSTRALIA

Angus Ashby	Gulnare
Chelsea Dahlenburg	Naracoorte
Angus Halliday	Bordertown
Royce Pitchford	Clare
William Sandow	Watervale

TASMANIA

John Chester	Campbell Town
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VICTORIA

Sam Crawford	Dunkeld
Oliver Vidor	Derrinallum

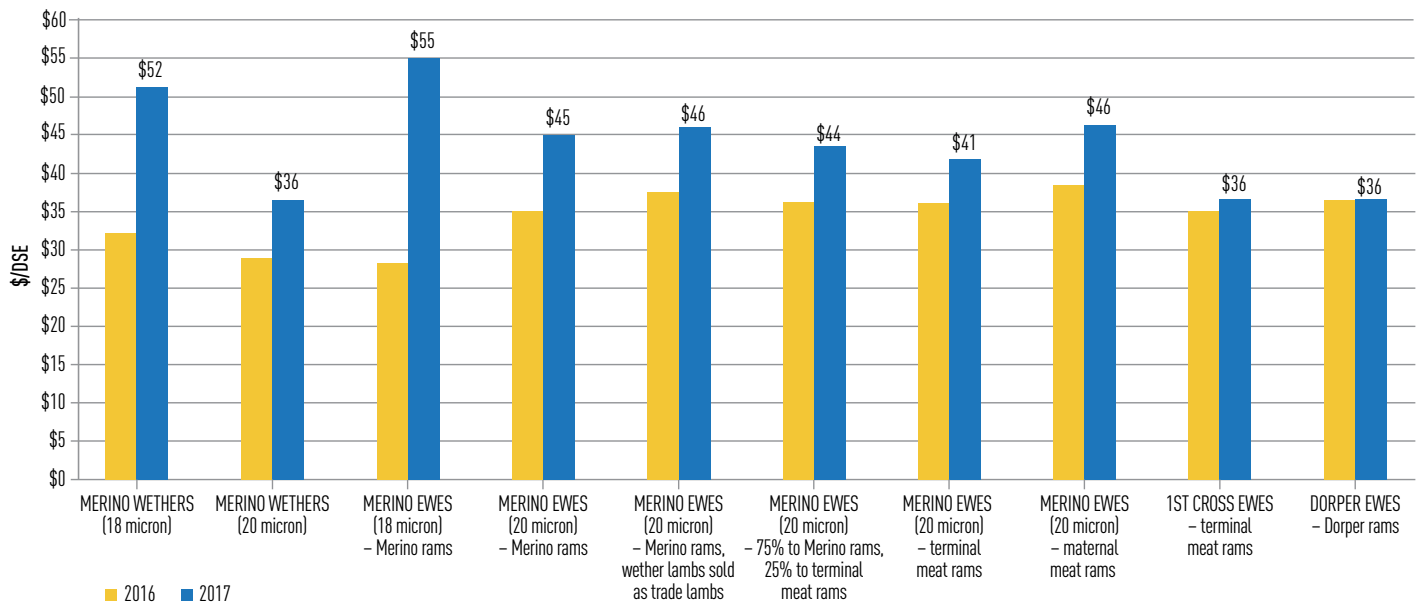
WESTERN AUSTRALIA

Stephen Chappell	Lake Grace
Daniel Dempster	Goomalling
Kyle Gumprich	Narrogin
Justin Haydock	Narrogin
Alex House	Claremont
Carl Storer	Cunderdin

WOOL FOCUSED ENTERPRISES BOOMED DURING 2017

Buoyant Merino wool prices are rewarding sheep producers that have stuck with Merinos, according to analysis by NSW Department of Primary Industries of the gross margins of ten types of wool and sheep meat enterprises.

NSW sheep enterprise gross margins for 2016 and 2017*



*Gross margin calculations based on average wool and sheep prices from 1 March 2016 to 30 September 2016 and 1 April 2017 to 1 September 2017.

Wool enterprises have boomed in 2017 with sheep industry analysis showing gross margins for Merino fine wool enterprises have risen by 55% since 2016 to generate \$554 per hectare.

NSW Department of Primary Industries sheep development officer, Geoff Casburn, said the story was positive for sheep across the board, with a wether enterprise proving a real winner.

“We saw a huge 61% leap for 18 micron wether enterprises, generating \$51.73 per DSE or \$517 per hectare,” Mr Casburn said.

“Self-replacing Merino flocks with 18 micron wool had the highest gross margin at \$55.43 DSE, and the two top enterprises benefitted from high prices for finer wool.”

Merino-based breeding enterprises (20 micron wool) achieved gains ranging from 29% for ewes solely joined to Merino rams to 11% for ewes solely joined to terminal rams. The difference between the two is primarily due to the increased value of surplus ewe hoggets in the breeding enterprise and the cost of replacement ewes joined to terminal sires.

The 20 micron wethers achieved a 25%

increase with a gross margin of \$35.98/DSE, reflecting a lower price rise in medium compared with fine micron wools.

The meat sheep enterprises of 1st Cross ewes joined to terminal rams and the self-replacing Dorper enterprise only maintained their gross margins, achieving around \$36/DSE.

For those producers who have achieved strong genetic gain in their wool enterprises by using sound ram buying strategies and careful ewe selection, increasing their wool cut while maintaining or reducing micron, their gross margin gains could be even greater.

“Compared with average results, producers who took advantage of genetic advances to lift both the adult wool value and wool cut by 15% could expect to see returns of \$81.29 per DSE for 18 micron wethers or a total of \$812 per hectare.

“When we applied the same market sensitivity to 18 micron ewes, a 15% increase on average returns saw the enterprise delivering \$65.02 per DSE or \$650 per hectare.”

Mr Casburn said cost structure helps explain performance differences

between enterprises.

“The highest costs per DSE were found in 20 micron ewes joined with terminal rams, due to the higher replacement ewe and fodder costs,” he said.

“Whereas self-replacing 18 micron ewe enterprises had the second lowest costs, which combined with high returns delivered the highest average gross margin.

The aim of the farm enterprise budgets prepared by NSW DPI is to provide producers with an additional planning tool to help evaluate their own budgets and options. The budgets also include sensitivity tables that allow producers to assess the impact that changing prices and production levels will have on the gross margin. Producers are advised to develop their own gross margins using actual costs and income. **B**

MORE INFORMATION

To access the full gross margin outputs, visit www.dpi.nsw.gov.au/agriculture/budgets/livestock
Geoff Casburn, NSW DPI Wagga Wagga, (02) 6938 1630, geoff.casburn@dpi.nsw.gov.au

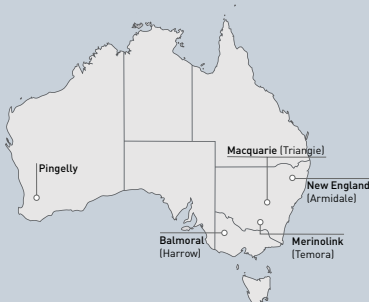
MERINO LIFETIME PROJECT UPDATE



A mammoth **50 pens of ewes** on display at the 2018 **Balmoral field day**.

FAST FACTS

- The AWI-funded Merino Lifetime Productivity (MLP) project is a \$7 million (plus \$5 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 better understand how current selection approaches relate to lifetime performance and to learn more about the genetics and economic interactions, across a diverse range of Merino types delivering high quality wool, lambs and meat through life.
- The MLP project runs at five sites where sire evaluation trials operate for the first two years and then continue to track the 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 assessed annually.



BALMORAL FIELD DAY HELD ON 16 FEBRUARY

The first drop of F1 Merino Lifetime Productivity (MLP) project ewes to have completed a full production cycle were on display at the Balmoral field day on 16 February at Harrow in Victoria. Along with the 2016 drop, these 2015 drop ewes were held in 50 pens representing the progeny of 46 diverse industry sires. The Balmoral ewes along with 4,000 others will be tracked through life across five differing environments capturing lifetime fleece, carcass, reproduction and visual records.

The data will be collated into a unique and important Merino dataset that will be used to review our current selection systems and the ability to select for lifetime performance at a young age. It will also create an opportunity to explore the drivers and the economics of lifetime productivity and better understand the lifetime relationships between wool, meat, disease resistance and reproduction performance.

The MLP Balmoral Site Committee, and site hosts Tuloona Pastoral, put on an excellent display for their annual field day with sheep in good commercial condition. In a first for the project, a unique MLP field day booklet was created that packaged results in a range of formats including raw data, adjusted sire means plus breeding values and indexes.

It was AMSEA Executive Officer Ben Swain's role to walk the crowd of 140 people through the newly created results booklet. Ben emphasised that although the early results were interesting, we need repeat records before we can draw too many conclusions.

"We have our first set of reproduction results in the project, which are 500 records of what will be 25,000. For a trait like reproduction, we need be patient, we need depth of data to be confident in the results," Ben said.

"Something we can talk about now are the results of the first syndicate joining.

"The site joined the 2015 drop F1 ewes to a syndicate of rams and used DNA to establish the parentage of the F2 progeny. The results from this first joining showed that of the 11 rams joined to the 580 ewes, one ram sired 33% of the progeny and 30% of twins were actually sired by two different rams," Ben said.

Although the outcomes of syndicate joinings are not a key focus of the MLP project, the project may gather new practical joining knowledge following the 45 natural joining programs.

The reports from the day are on the AWI website at www.wool.com/MLP and will be updated following the Balmoral site shearing in April.



AMSEA's **Ben Swain** addressing the 2018 **Balmoral field day** attendees.

PRODUCTIVITY



UPCOMING FIELD DAYS

The MLP field days are a great way of seeing first-hand the diversity of sires and sites involved in the project.

Three field days are planned for the coming months that will feature a mix of sheep displays, guest speakers, the new MLP report and other local demonstrations.

Visit the MLP page on the AWI website at www.wool.com/MLP for more details:

Date	Site	Contact
16 March	MerinoLink Temora, NSW	Sally Martin 0400 782 477
28 March	Pingelly, WA	Bron Clarke 0418 957 293
11 July	Macquarie Trangie, NSW	Kathryn Egerton-Warburton 0429 943 708



The **Balmoral field day** gave woolgrowers an opportunity to inspect first-hand the progeny from the diverse range of sires entered at the site.

FINAL MLP AI PROGRAM (NEW ENGLAND)

The tenth and final artificial insemination (AI) program in the MLP project will take place in April at the New England site (Armidale, NSW). At the conclusion of the AI program, a total of 15,000 ewes will have been AI'd to 135 unique sires in order to generate the 5,000 F1 ewe progeny that form the basis of the project. This is a huge feat by the five sites involved.

At each of the five MLP sites, industry sires are joined for two years having been selected to provide a balance of different types, performance, sire age, horn status, industry impact, and breeding philosophies. A stocktake of sires involved in the project mid last year showed that the sire listing was close to being industry representative, although there was a need to involve greater ultra-fine genetics.

The project received a total of 40 industry sire nominations for the New England joining, including a good representation from the ultra-fine sector. The planned list of sires selected for AI in April 2018 is outlined on the right. We look forward to following their progeny through life and learning as much as we can about the drivers of productivity in a summer rainfall, worm-challenged and mules-free environment.

- Alfoxtton, 150430 (Industry Impact Sire)
- Avington Poll, 160047
- Bungulla, 160350
- Clovernook Poll, 160095
- Cressbrook, 140055 (Link Sire)
- Eilan Donan, Harvey (5145) (Industry Impact Sire)
- Europambela, 120101
- Hillcreston Park Poll, 120143
- Hilltop, HT Poll 156
- Karori, 150222
- Nerstane, 150073 (Link Sire)
- Petali Poll, 160849
- Tallawong (Poll), 150280
- Wurrook, 130149 (Industry Impact Sire and Link Sire)
- Yalgoo, 160070

A complete list of sires for the MLP Project can be found on the AWI website at www.wool.com/MLP

MORE INFORMATION
www.wool.com/MLP

PROJECT CONTACT DETAILS

Date	Site	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

DIGITAL AGRICULTURE COULD UNLOCK PRODUCTION GAINS

Achieving the full potential of digital agriculture in Australia could boost the value of production across all agricultural sectors by \$20.3 billion, according to the findings of Australia's first whole-of-industry digital agriculture research project.

The project that brought together all 15 rural Research and Development Corporations (RDCs) – including AWI – evaluated the current and desired state of digital agriculture in Australia.

Digital agriculture is defined as typically involving both the collection and analysis of data to improve decision making, leading to better business outcomes. Examples of digital agriculture include machinery automation to make animal handling more efficient, genetic gains through using objective data for animal selection, and tailoring inputs such as fertilizer to pasture needs.

The project concluded that if digital agriculture was fully implemented in Australia, producers across all agricultural sectors in Australia (represented by the 15 RDCs) would benefit from an estimated overall increase in production value of \$20.3 billion, a 25% increase compared to 2014-15 levels, while also securing their global competitiveness.

For the wool sector, the project estimated that the value of agricultural production would increase by 18%, which is a \$452 million boost to the sector's gross value of production. The overall potential increase in national gross domestic product, including the flow-on effect to other parts of the Australian economy, by the increase in production in the wool sector is estimated to be \$1.128 billion.

PRECISION TO DECISION PROJECT

The Accelerating Precision Agriculture to Decision Agriculture (P2D) project was set up by the Commonwealth Department of Agriculture and Water Resources in 2016 to provide recommendations that help ensure Australian primary producers are able to overcome the challenges currently limiting digital agriculture.

Producers across the nation were surveyed to better understand the current perceptions and needs for digital agriculture, with eight regional stakeholder workshops (including two that included a focus on wool, at Tamworth in NSW and Northam in WA) held in five states.

Despite the opportunity for enormous benefits from digital agriculture, the P2D project team found that transition from



If **digital agriculture** was fully implemented in Australia, the wool sector's gross value of production would receive a \$452 million boost.

analogue business and production models to digital is also creating challenges for farmers. Current barriers to digital transition include poor connectivity, a lack of confidence in returns from investment in digital agriculture, poor knowledge and support to assess options, and trust and legal issues around data ownership.

In its recently released report, the P2D project delivered 13 key recommendations (aggregated from 67 detailed recommendations) designed to catapult Australian agriculture into the digital age. It also provides direction on the next steps required to implement the recommendations.

P2D project researcher Richard Heath, from the Australian Farm Institute, said the P2D recommendations call for a "big picture fix".

"Our economic analysis, supported by international value proposition case studies and domestic best-practice benchmarking, gives us a window into the right formula for delivering maximum returns, specific to each industry," he said.

"But to capture the maximum potential, and secure our position as a world leader in agricultural production, we are going to need to act quickly and cooperatively to coordinate a national approach.

"If we get this right, agriculture in the future will be digitally enhanced throughout the value chain from producer to consumer, through increased automation, smarter use of inputs, accelerated genetic gains and improved market access and biosecurity."

AWI ALREADY ON FRONT FOOT

AWI Program Manager for Farm Automation & Reproduction, Carolina Diaz, said AWI is already on the front foot by having a Farm Automation & Software Development strategy in the company's current three-year Strategic Plan.

"Through our program of investment, AWI seeks to ensure Australian woolgrowers are availed of practical, low cost digital tools which automate routine operations, support productivity and welfare improvements, and genetic progress," she said.

"In seeking to actively lead and catalyse developments in this space for woolgrowers, AWI is working with leading edge commercial technology developers and IP owners to minimise R&D costs, risks and development timeframes, and also actively co-invest with relevant partners including other RDCs."

In 2015, AWI set up Digibale, a commercially focused company responsible for developing and distributing digital tools for Australian woolgrowers and other supply chain participants. Some of the products developed to date include phone Apps like Lifetime Ewe Management (LTEM), Sheep Breeds and Bale Weight Calculator, LandLinks website, several collaboration tools and wireless sensor and data analysis projects.

The program's current research focus includes the development of low-cost smart tags capable of generating maternal pedigree (mothering up), monitoring the location and movement of individual sheep in a flock, and other behavioral information such as wild dog and flystrike alert notifications - see article to the right.

Other initiatives under way at AWI include the development of simple and cost-effective wireless networks that enable the remote monitoring of, and the provision of internet to, distant parts of a property, and the development of platforms to enable automated pasture production assessment and its integration into farm Apps such as the LTEM App.

"AWI looks forward to continuing to work with the other RDCs to transform farm business management and decision making through effective digital agriculture adoption," Ms Diaz added. **B**

MORE INFORMATION

www.farminstitute.org.au/p2dproject

NEW GENERATION LOCATION TAGGING TRIALED BY AWI

The next generation of smart sheep tags, capable of tracking real-time location of sheep, are being trialed on-farm by AWI.

With bluetooth technology now a proven technology for pairing ewes and lambs for parentage, the challenge now is to explore the benefits of tracking the location of sheep in real time. When coupled with predictive software, algorithms and passive data collection, such technology will evolve to become a valuable on-farm tool, offering woolgrowers brand-new insights into sheep behaviour and flock management.

By tracking individual animals across a flock, the technology ultimately could assist in optimising grazing management, alert woolgrowers to animal husbandry issues including predation, lambing trouble, flystrike and could potentially prevent stock theft.

The early detection of the dangers of wild dogs or foxes, ewes at lambing, flystrike or even footrot is an example of where state-of-the-art digital technology could be incorporated with best practice animal welfare for the benefit of both sheep flocks and woolgrowers.

AWI CEO Stuart McCullough said the technology had been trialed in the lab and undergone initial field trials by AWI's digital

farm automation platform known as Digibale, but placing the latest generation tags on farms to focus on real-time location services was the important next step to developing the suite of commercial tags in the future.

"We have to make wool-growing easier and more profitable and by trialing the very latest digital technology in an on-farm context is very exciting," he said.

"Expanding the basic parentage functionality with the real-time location data will take time to collect much more real-life data as there is still a lot of work to do to test further our proof of concept of our advanced features. In turn, predictive analysis and decision-making may lead to better monitoring and management tools to help save on time and labour.

"I know these technologies at first appear a way off for some woolgrowers given poor connectivity in many wool-growing regions but it is AWI's role to explore what potential there is for woolgrowers in this age of exponential digital growth." **B**

MORE INFORMATION
www.wool.com/smartags



Ear tags in place during an AWI farm trial.

RESEARCH INTO EARLY DETECTION OF WORM BURDENS

New research will get under way next month into a real-time sheep monitoring system that will enable producers to be alerted when their sheep are showing early behavioural changes associated with increasing worm burden.



Dr Jamie Barwick at the **University of New England's SMART Farm Innovation Centre** interrogating some data streams coming off the UNE SMART Farm.

Imagine this: a woolgrower is sitting at the breakfast table with his cup of tea. Before heading off into the paddock to do the daily activities, he checks his iPad. On the screen he can see the location of all his sheep and a health status icon hovers over each sheep providing an indication of any problems. A small sensor has been monitoring the behaviour and activity of each animal 24 hours a day, providing an early warning of any behavioural changes. The woolgrower can now prioritise his routine inspections and potentially implement treatments well before he would have traditionally noticed a problem.

Whilst this may seem fanciful, this is already a reality in other livestock industries and a new project funded by AWI aims to help make this a reality in the Australian sheep industry.

The research will be undertaken by 28-year-old Dr Jamie Barwick, an associate lecturer in precision agriculture at the University of New England, Armidale, who was presented with a Science and Innovation Award for Young People in Agriculture earlier this month.

The cost of internal parasites to the Australian sheep and wool industry is more

than \$430 million annually which, after neonatal mortalities, is the highest animal health cost the industry faces. The costs are not only associated with the treatment of affected animals; approximately 80% of total costs are associated with lost production.

Dr Barwick said remote monitoring of sheep activity and behaviour has the potential to substantially reduce the current high levels of lost productivity associated with worm burdens.

"If producers were able to identify worm infections earlier than current diagnostic measures, which include worm egg counts and visual observation, the potential benefits of a behaviour alert system to the sheep and wool industry could be enormous," Dr Barwick said.

"There are already established links between animal activity, such as a change in grazing activity, and the animal's health status. Furthermore, there are also several studies that have identified the capacity of on-animal sensors to predict animal behaviour. So the goal of this project is to produce an algorithm that will enable the sensors to identify the sheep's behavioural changes associated

with increasing worm burden, and then alert producers.

"The project will also investigate the development of a paddock-based auto-drafting system that will help with the targeted treatment of selected animals and therefore help to reduce the time and labour the producer needs in animal management."

Similar modelling principles could be applied to the identification of other diseases, such as flystrike, therefore contributing to further research in the field of animal health and welfare.

Dr Barwick said he is keenly optimistic about precision agriculture in the livestock industry and believes it has the potential to assist graziers' management operations in the 21st century.

"This project will fulfil a personal goal of developing an autonomous disease detection system for the Australian sheep industry," he said. "I hold a strong belief that digital agriculture technology must offer a direct benefit to the farmer, either through more efficient allocation of resources, informed decision making, optimised productivity and sustainability levels and ultimately an improved pathway to profit."

Dr Barwick's project will begin next month and be completed 12 months later. The results of his study will be written and submitted for publication in refereed scientific journals. Findings will also be communicated with tech development companies involved in real-time livestock monitoring, allowing potential incorporation of the behaviour models into their pathway to market.

The Science and Innovation Awards for Young People in Agriculture are coordinated by ABARES and are open to young people aged 18-35 years working or studying in rural industries. The annual awards aim to encourage the uptake of science, innovation and technology in rural industries. **B**

MORE INFORMATION
jbarwic2@une.edu.au

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.



MANAGING BREECH FLYSTRIKE

(June 2017)

This 44-page manual is designed to help woolgrowers further reduce their flock's flystrike risk. It includes coverage of management options, breech modification, scouring and worm control, breeding for breech strike resistance and moving to a non mulesed enterprise.



DAFWA BREECH STRIKE RESISTANCE PROJECT NEWSLETTER ISSUE 7

(July 2017)

CSIRO ARMIDALE BREECH STRIKE GENETICS NEWSLETTER ISSUE 7

(November 2016)

Newsletters from the Breech Strike Genetics project funded by AWI.



BREEDING LOWER WRINKLE AND DAG

(June 2017)

PAIN RELIEF: FREQUENTLY ASKED QUESTIONS

(March 2017)

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



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. **B**

PLANNING TO MOVE TO A NON MULESED MERINO ENTERPRISE



A new AWI report that is intended to assist woolgrowers in planning to move to a non mulesed Merino enterprise is available in hard copy and online.

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

While mulesing has been shown to reduce breech strike by 90%, in 2016/17 7% of the Australian Merino clip (less than 24.5 microns) was declared as non mulesed through AWEX's National Wool Declaration. Moving to a non mulesed enterprise isn't easy, however there is a trend to non mulesed wool. Key learnings to keep in mind from these businesses when considering a move to a non mulesed Merino enterprise include:

- It is important to have a detailed plan in place that has the support of everyone in your business – including staff, contractors, shearers, livestock agents and ram suppliers.
- The business needs to be brave, organised and determined to make it work in the early years.
- Moving to a non mulesed enterprise often requires fundamental change to the whole business. **B**

MORE INFORMATION

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

MORE INFORMATION

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

EWES: HOW THEY CAN SABOTAGE YOUR WORM CONTROL

wormboss

For most properties, a breeding ewe flock rather than wethers drives profit, but they also drive worm contamination of pastures. This results in an ongoing source of infection, not just for the ewes, but also for their lambs and other sheep on the property. However, a number of strategies can be used to combat this issue.

WHAT IS THE PROBLEM?

Ewes start to lose immunity to worms during late pregnancy with the effect starting earlier and being more severe with poorer feed quantity and quality. The establishment rate of worms, that is, the percentage of infective worm larvae consumed with pasture that establish to become adult worms in the sheep, increases at these times.

To put this into perspective, only 5–10% of worm larvae will establish in a dry ewe in good condition and on good feed. During early lactation, that may rise to a level where 40–60% of the infective larvae are able to establish to adult worms.

Before worm egg counts (WEC) start to rise,

changes occur in the immune response of the pregnant ewe that signal the ewe is losing immunity. These changes can occur as early as three weeks prior to lambing and lead to an increase in worm egg count and worm burden. The rise in WEC is worse in ewes with multiple lambs and on low nutrition, and they will also take longer to recover after weaning.

Figure 1 right shows a comparison of worm burdens of ewes on either a low or a high-quality diet and in different reproductive stages. It shows that the dry ewes had a very low burden of worms – no bars are evident as the result was close to zero for both the low- and high-quality diet. However, during pregnancy and lactation the average counts rose considerably more in ewes on a low-quality diet. However, the counts of ewes that

had lambs weaned early dropped noticeably, and more so in the ewes on a high-quality diet.

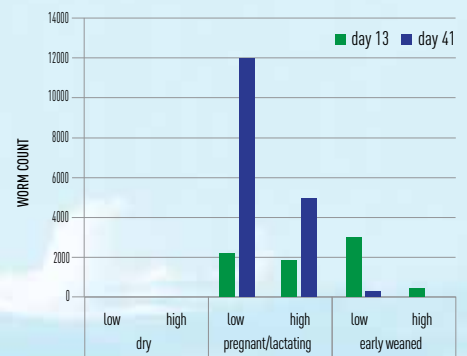


Figure 1. The worm burden (black scour worms) of dry, pregnant/lactating and early-weaned Merino single bearing and rearing ewes on either a low or high-quality diet. Source: Lewis Kahn.

Ewes with a higher body condition score and receiving good quality pasture through lambing maintain better immunity against worms.



WHAT IS THE CAUSE?

The main cause of the loss of immunity is the negative nutritional balance of the late pregnant and lactating ewe. Put simply, ewes generally lose weight during this time and can typically lose 30–50% of their fat and 10–20% of their protein reserves from two weeks prior to five weeks after lambing.

While not fully accounting for all the changes that increase susceptibility of reproductive ewes to worms, these losses are the main cause. Increasing the quality of the diet results in lactating ewes eating more and being in better condition and this improves worm resistance and reduces worm burdens.

WHAT CAN YOU DO ABOUT IT?

Both breeding and management approaches can be used to deal with the increased susceptibility of the lambing ewe to worm infection. These involve increasing immunity or decreasing the worm challenge.

IMPROVE THE IMMUNITY OF EWES TO WORMS

- All ewes should be in good condition by lambing and have sufficient pasture by following the Lifetime Ewe Management program (see page 36).
- In barber's pole worm regions, vaccinating

with Barbervax® can result in ewes better able to kill the worm larvae they ingest; commence a vaccination program well before lambing.

- Breed worm-resistant ewes by using rams with more negative Worm Egg Count Australian Sheep Breeding Values (ASBVs).

These strategies, in turn, also contribute to fewer worms on the pasture.

REDUCE EXPOSURE OF LAMBING EWES TO WORMS

- Use a grazing management strategy to provide low worm-risk paddocks for lambing ewes, particularly in spring lambing barber's pole worm regions.
- Remove worms from the ewes just prior to lambing with an effective drench:
 - A short acting product is generally all that is required, particularly in southern Australian scour worm-areas and anywhere that lambing paddocks have been prepared as low worm-risk.
 - A long acting product may be indicated if lambing paddocks are known to be heavily contaminated, but take care because:
 - any long acting product has

greater potential for accelerating development of drench resistance

- drench resistance of barber's pole worm to moxidectin (the active in the commonly used long acting injections) is already very widespread (an effective primer drench should be used concurrently)
- moxidectin transfers from the ewe to the lamb through milk, resulting in the lamb receiving too low a dose of the active, which may accelerate drench resistance development.

Your location in Australia will determine which of these strategies should gain the most focus on your property. But in most regions, late summer and autumn is a critical time to address these in one way or another.

WormBoss Worm Control Programs have been developed for eight regions in Australia and describe the recommended strategies and when and how to implement them. **B**

MORE INFORMATION

www.wormboss.com.au/programs.php



ProWay

Livestock Equipment

Well-designed wool sheds and stock yards make your livestock operation more profitable for the following reasons:

- Provide the safest working environment for you and your staff.
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LOADING RAMPS

HANDLING EQUIPMENT

FREE HARVESTING VIDEOS FEATURE TOP TIPS

A series of short training videos for shearers and wool handlers, **to promote better techniques and improve clip preparation practices in the industry**, is available free from AWI.

Woolgrowers are reminded that a comprehensive series of about 200 short videos to improve skills in shearing sheds are available free from AWI on a USB.

The AWI videos cover all aspects of wool harvesting and are a complete reference guide for shearers, wool handlers, woolgrowers, instructors and students working in various areas of wool harvesting.

Packed with tips, hints and practical advice, the videos include advice from experienced shearers, wool handlers and wool classers including Shannon Warnest, Dwayne Black and Racheal Hutchison.

Also available on the USB is a series of four recent training videos that highlight the Shear-

THE USB INCLUDES VIDEOS IN THE FOLLOWING SECTIONS:

- BASIC WOOL HANDLING
- NOVICE SHEARING
- IMPROVER/PROFESSIONAL SHEARING
- WOOL HANDLING AND SHED SKILLS
- EXPERTING AND GRINDING
- WOOL INDUSTRY
- CRUTCHING

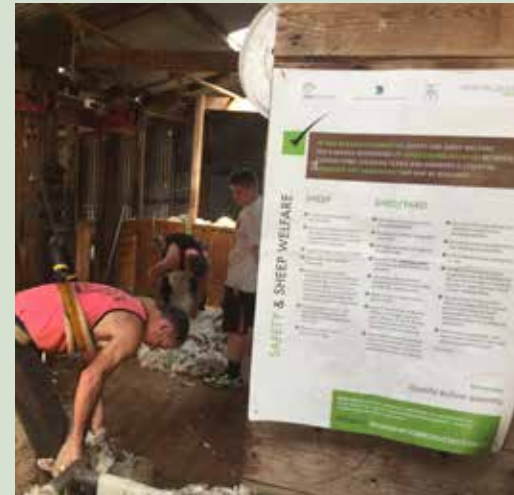
Jitsu technique which is a new way to perform the catch and drag. Shearers can utilise the technique to help them prevent injury and increase the longevity of their careers. **B**

MORE INFORMATION

The USB is available free to shearers, wool handlers, trainers and woolgrowers by calling AWI on **1800 070 099**. The videos are also available to view on the AWI YouTube channel www.youtube.com/AWIWoolProduction

CODE OF CONDUCT WOOLSHED POSTER

A 'code of conduct' poster that can help woolgrowers set standards for their entire shearing team – regarding animal welfare, workplace health and safety and the prohibition of drug use – continues to be available from AWI.



Having sheep and the shed well prepared for shearing, and upholding the best in animal welfare are all vital, not only in every shearing shed in Australia but for the entire wool industry.

A 'code of conduct' poster, originally issued two years ago, provides woolgrowers with a good starting point to discuss with their shearing team behavior in the shed that ensures a positive outcome for everyone including the woolgrower's sheep.

A copy of the poster was sent to woolgrowers with the March 2016 edition of *Beyond the Bale*, but replacement or extra copies are available free from AWI.

The poster is a joint initiative between AWI, Shearing Contractors' Association of Australia, the WA Shearing Industry Association, and WoolProducers Australia. **B**

MORE INFORMATION

You can download a copy of the A3 size shearing shed poster at wool.com/shearingresources or to get a free copy of the poster posted to you contact the AWI Helpline on 1800 070 099.

SHED SAFETY SIGNAGE KIT

A safety signage kit for woolsheds is available for purchase online for \$25 from AWI.

Woolgrowers are able to purchase online a safety signage kit for their woolsheds.

Initially released five years ago, the kit was designed by the WA Shearing Industry Association (WASIA), with support from AWI, following requests from woolgrowers and contractors at shed safety assessment and training workshops.

AWI sponsored the development and production of the kit and continues to make it available to woolgrowers for \$25 (including GST), which covers handling and postage cost only.

The kit includes a total of 36 signs (22 different signs), printed on UV-stabilised polypropylene for durability, with predrilled holes for easy installation. The kit also includes guidance notes to assist in the proper location and installation of these signs.



The aim of these signs is to help improve and promote safety in woolsheds. If woolgrowers want to retain shearers and woolhandlers in the industry, and attract others, woolgrowers need to ensure that their staff have professional shed conditions in which to work. **B**

MORE INFORMATION

The kit is available to purchase online at www.wool.com/shedsafety.



AWI shearer trainer **Kevin Gellatly** with four young students – **Stephanie Rose, Ethan Gellatly, Shelby Atherton and Kane Johnston** – at a shearing school at the **WA College of Agriculture at Harvey**. PHOTO: Nic Ellis, The West Australian

EXPERT TRAINING BENEFITS YOUNGSTERS

AWI funds hands-on practical in-shed training for shearers, aimed at increasing their skills, productivity and professionalism. An emphasis on teaching good technique, rather than relying on strength, is helping attract and retain younger shearers and female shearers in the industry.

Kevin Gellatly attended his first shearer training course at the age of 17 with Burt Dwyer in 1965 at Perenjori in the northern agricultural region of WA – and he's been shearing ever since. His exceptional contribution to the industry was officially recognised in 2015 when he was inducted into the Australian Shearers' Hall of Fame.

He has been passing on his vast experience and the tricks of the trade as a trainer for more than 20 years. During this period Kevin has whittled down the most important qualities needed by young aspiring shearers to two simple traits: "a good work ethic and ears that work".

At the Rylington Park Institute of Agriculture near Boyup Brook in the Great Southern region of WA, Kevin and his partner Amanda Davis, with the support of AWI, run shearer and wool handling training courses throughout the year. These courses are for students of all levels, from complete novices through to professional shearers looking to fine tune their skills.

Kevin said that while shearing is a hard job and you need to be physically fit, it's not youth and strength that will make a shearing career successful, it is longevity and keeping

injury-free that is key to success.

"This comes from actually learning a skill and doing it properly, so you're not putting any weight on your back but putting more of the weight onto the sheep and footwork," he said.

"Techniques like knowing how to cradle the sheep with your feet and maneuvering them around so they are comfortable is very important for the animal's welfare. If the sheep is comfortable then obviously the sheep will be calm, and the flow on effect is that you'll be able to shear the sheep efficiently."

Kevin teaches the trainees how to break down shearing into "achievable outcomes". The first section to focus on is shearing one leg and removing the wool. He then gets the student to put the sheep back in the pen and gets the wool handlers to pick up the wool and learn how to skirt it and judge its characteristics. When the students are confident, Kevin then goes through each section of the sheep and then marries them all up.

At the shearing school at Rylington Park in January 2018 complete novices were shearing 4-5 sheep a run by the end of the day using this learning plan.



Kevin Gellatly training at **Denmark Agricultural College, WA**.

SHEARING RUNS IN THE FAMILY

For Kevin, shearing runs in his blood: his father being a shearer before him, his brothers are shearers, and now his nephew Ethan has taken up the hand piece.

Last September Ethan took out the Novice Shearing Competition at the Perth Royal Show at just 16 years of age. To qualify for the competition participants must have shorn no more than 5,000 sheep in their career – Ethan had only shorn 400. Ethan's talent is evident, and he says his passion for shearing stems from the role models in his family.

"My uncle [Kevin] put a hand piece in my hand when I was four," Ethan said, and his grandfather reinforced Ethan's passion for the industry when he took Ethan – a then eight-year-old – to England, tucked him under his belly, and helped Ethan shear a Jacob sheep. Since then Ethan has travelled with his dad and uncle to America and with his grandfather to England and Latvia throughout the Australian winter – the shearers' off-season.

Setting his goals high, Ethan plans to compete in the novice competition at shows for the next couple of years while he finishes school and then tie in travel with the job. "Everything I can get I take, and take it in so I can get better and better," he said.

"The most important things are footwork and positioning, keeping your comb full and listening," Ethan said, keeping in mind the advice imparted by his family.

Ethan has started to lend a hand at Kevin and Amanda's shearer training courses and says more of his mates, even a few older ones, are starting out in the industry as they see that it's a good opportunity where they can progress and be their own bosses.

FEMALES TAKING UP SHEARING

Over the years, Kevin and Amanda have had many types of shearers come and go through their courses and what Kevin's seeing now is a shift in demographic. He says that, in the past 20 years, girls have dominated across the board in wool handling and classing and now they are branching out into shearing.

He says girls are not as strong physically but they "dance around the sheep a lot better than boys or young men" and they're easier to teach too – they listen better. Because they can't rely on brute strength their footwork and technique has got to be spot on, so the training courses prove to be a gold mine of knowledge for aspiring female shearers. Amanda is one such example of how females can excel in the wool industry.

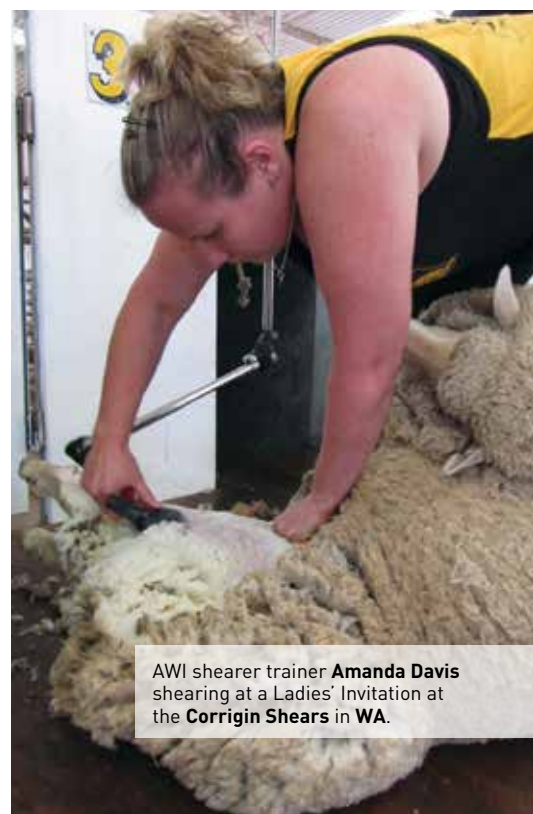
Amanda learnt to shear about 10 years ago but started her wool industry career when she was a teenager. Her father, a wool classer, would take her out on the job through the school holidays and she landed her first paid

job as a wool handler at the age of 14. This is where her passion for wool started. She is now a professional wool classer and wool handling trainer alongside Kevin.

"My main aim is to give students as many tools in their back pocket to help them through their career," Amanda said. "And it's important for the kids to understand why we do it – not just teaching them that you've got to do it."

When Amanda had learnt all the other skills of the industry she thought she'd try her hand at shearing. Now a qualified Level 2 shearer trainer, Amanda says that "you never stop learning". Sometimes when there's a few females in the course who aren't confident on having a go at shearing, Amanda will jump up on the stand and show them how it's done – and if Amanda can do it then they'll have a go too.

"Whether I'm shearing or wool classing, you're just one of the team. I don't see it as being male and female, it's an equal playing field," she said. This attitude which Amanda brings to the shed and the training courses helps build confidence in young girls and they learn to assume this attitude themselves. **E**



AWI shearer trainer **Amanda Davis** shearing at a Ladies' Invitation at the **Corrigin Shears** in WA.



Ethan Gellatly (centre) with his grandfather **Rodney** (left) and father **Trevor** (right) at last year's **Wagin Woolarama** during which they competed in the novice, senior and intermediate divisions.



Kevin Gellatly training student **Danielle Mauger**, who is now working as a shearer.

MARKET INTELL

AVERAGE MONTHLY EMI COMPARISON RECORD PERFORMANCE FOR FINER AND MID MICRONS

EMI'S RECORD RUN

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 (November 2017 – January 2018) in Australian dollar terms compared with the previous five years November 2012 to October 2017 (circles) and the decade previous to that, November 2002 – October 2012 (squares).

For the past three months, the monthly EMI averaged at \$17.28, tracking at the 100th percentile against the previous five-year monthly EMI. This means that in the previous five years the monthly EMI has never recorded a price higher than the current \$17.28 (November 2017 – January 2018).

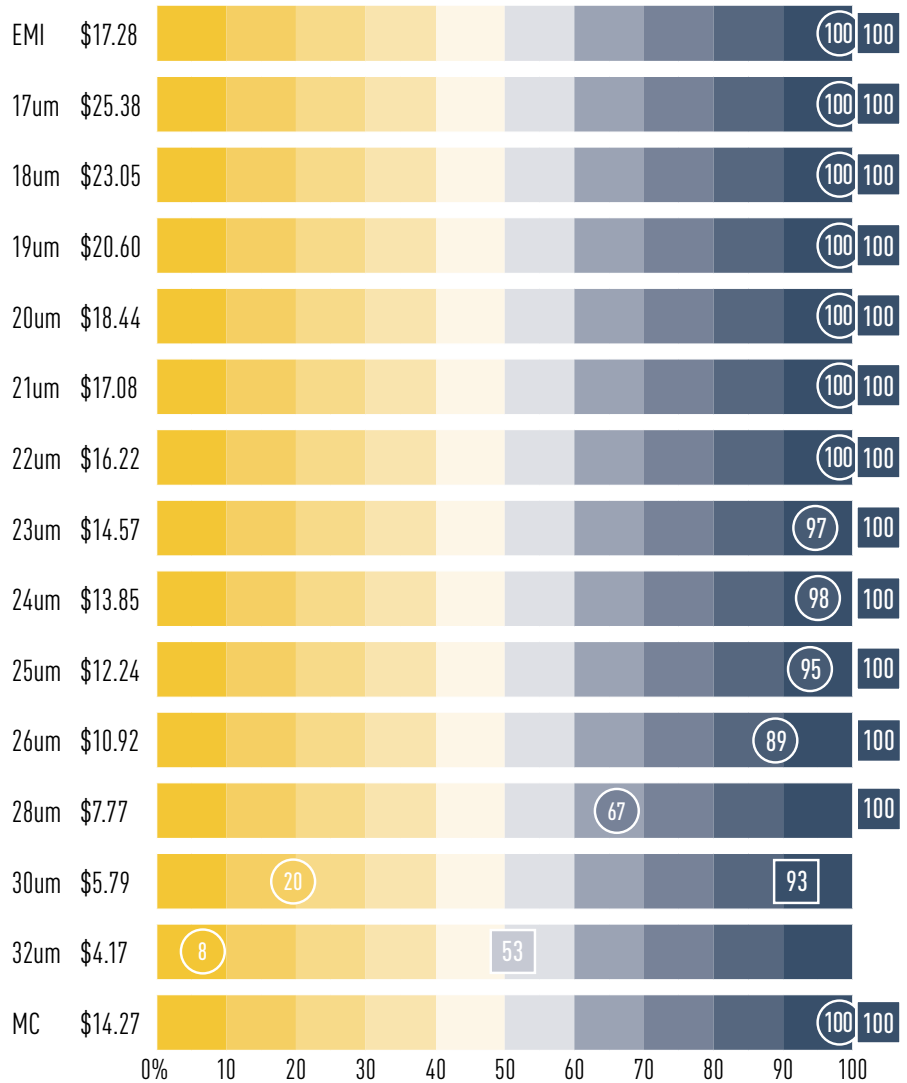
As well as tracking at the 100th percentile over the previous five years, the EMI is also at the 100th percentile when compared to the decade November 2002 – October 2012. This means the current EMI of \$17.28 (November 2017 – January 2018) is higher now than it was for all that decade.

The monthly EMI for the past three months has risen nearly 11% from the monthly EMI for the previous three months.

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 \$14.27, operating at the 100th 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 \$23.05 (100th percentile for the previous five years and 100th percentile for the previous decade), 21 micron averaged at \$17.08 (also 100th percentile for the previous five years and 100th percentile for the previous decade), and 28 micron averaged at \$7.77 (67th percentile and 100th percentile respectively). **B**

AVERAGE MONTHLY EMI FOR NOVEMBER 2017 – JANUARY 2018 COMPARED WITH
● PREVIOUS 5 YEARS NOVEMBER 2012 – OCTOBER 2017
■ THE DECADE NOVEMBER 2002 – OCTOBER 2012



MARKET INTELLIGENCE: FREE VIA SMS

In an initiative launched last 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

WOOL AND SHEEP PRODUCTION IN CHINA

In this article we look at wool and sheep production within the People's Republic of China (PRC), given the importance of the country's contribution to the global economy and wool industry.

The People's Republic of China is Australia's first and foremost valuable trading partner for wool. This current season has seen China importing more than 74% of all Australian wool grown annually, and that will roughly equate to a seasonal projection approaching AU\$2.6 billion of raw wool value.

While Australia is world's largest producer and exporter of raw wool, China has more sheep than any other country – see Table 4.

Successive and consistent Chinese Government policy of expansion and development of sheep industries across the inland provinces and grassland ranges has prevailed since the mid-1950s. Deng Xiaoping solidified this policy during the 1980s by specifying a priority of increasing production "for domestic consumption". The policy gained further impetus at the beginning of this century with the "Accelerated Livestock Development" plan which not only quickened the expansion of sheep enterprises but specifically emphasised the development of "fine wool production" as a key part of that strategy.

Much of the sheep industry today is dominated by two directly opposing ownership models. The traditional and numerous small villager household production and the other being large and modern factory farms, with the former in decline and the latter becoming more common place and the most economically sustainable model.

Grazing has been steadily waning, with intensive feeding the replacement, as a result of feed crops becoming more prevalent. This supplementary feeding provides a more predictable and cost-effective alternative to grazing. Government grassland ecology protection restrictions also played their part. Small farmers are not left out as they exit the industry, as they are in most cases employed by the larger operators to manage and run the massive sheep enterprise investments.

In China, the total domestic wool production is estimated at 280 million kgs of greasy wool, including fine wool, semi-fine wool, coarse wool, cashmere and so on – see Table 1. As cashmere is included, it can be assumed that a portion of the figures are goat sub-species.

In China, there are five main wool-producing areas – see Table 3. Average

TABLE 1: CHINA DOMESTIC WOOL PRODUCTION (MKG GREASY) (SOURCE NWM)

Wool type	Fine	Semi-fine	Coarse	Cashmere	Others
Ave micron	25.0 and finer	25.0-32.0	32.0 plus	15.8	
Production	80mkg	100mkg	50mkg	20mkg	30mkg

TABLE 2: CHINA MERINO SHEEP PER HEAD AVERAGES (SOURCE NWM)

	Ave micron			Kid sheep [15 months old] - rising two tooth		
	Live-weight post shearing (kg)	Shorn wool clean kg	Staple length (mm)	Live-weight post shearing (kg)	Shorn wool clean kg	Staple length (mm)
Ram	70	5.5	90	38	3	105
Ewe	40	3	90	32	2.5	105

TABLE 3: MERINO SHEEP EQUIVALENT STOCK IN SELECTED CHINESE 'FARMS' (SOURCE NWM)

Area	Heilongjiang	Gansu Sunan	Xinjiang	Wushenqi - IM	Qinghai
Sheep	Meat and wool sheep	Fine wool sheep	Fine wool sheep	Fine wool sheep	Meat and wool sheep
Ave micron	22.6-24.1	21.0	19.5-21.0	19.5-21.0	22.5
Ewe	3,300,000	1,180,000	51,000	1,200,000	450,000

number of sheep on each farm is about 400-500. When you factor in the average yield and processing losses cumulatively at 40%, that equates to roughly 32 million kgs clean for apparel production.

China, similar to Australia, faces the influence of competing uses of land. High sheep meat prices and returns from farming of forest or pastures are a hindrance to further sheep number growth in China. The wool production is forecast to be similar next year.

China is the world's largest producer of sheep meat, with an annual output that, in 2013, was twenty times more than that of traditional exporters like Australia (*Du-Bois and Gao 2017*).

Massive sheep farms in western Inner Mongolia have been developed with the aim to capture the majority of the Chinese domestic market and become a major supplier of high-quality mutton to the rest of Asia.

TABLE 4: TOP 5 COUNTRIES OF SHEEP POPULATION

	Country	Number of sheep	% of global total
1	China	187 million	16.0%
2	India	75 million	6.5%
3	Australia	70 million	6.0%
4	Sudan	53 million	4.5%
5	Iran	49 million	4.0%

TABLE 5: CHINESE SHEEP FARMS PER FLOCK SIZES

Annual head count	Number of 'farms'
Less than 100	17,000,000
100 to 500	340,000
501 to 1000	35,000
More than 1000	10,000

NEW DEMAND FOR WOOL IN THE USA

The demand for Australian Merino wool in the USA has increased, especially in the past couple of years, with brands expanding their use of the fibre in new ranges and sectors – and many other brands ‘discovering wool’ and using it for the first time. However it’s important that the Australian wool industry continues to inform the market about the fibre’s on-farm provenance.

Each year staff from AWI’s head office in Sydney lead a delegation (including an Australian woolgrower and a researcher) to the northern hemisphere, where it informs key brands, retailers, retail associations, welfare groups and NGOs about Australian wool and the high standard of on-farm animal welfare practices.

AWI’s General Manager of Corporate Affairs & International Market Access, Peta Slack-Smith, who has led these delegations since 2009, says the feedback from northern hemisphere markets is that consumers’ and brand’s/retailers’ perception of wool is changing significantly for the better, with the result that demand for the fibre is growing.

In Episode 26 of AWI’s The Yarn podcast – which features Peta’s report from the delegation’s visit to the USA – you can hear from major retailers and their industry associations about why wool is increasingly winning in this vital global market.

Below are a few quotes from some key US stakeholders featured in the podcast. To hear the full 23-minute podcast, visit www.wool.com/podcast.



STEVE GREENWICH

Senior sales director for the US market, Italian spinner Tollegno

“Right now, wool is the ‘new fibre’ of the US market. The region is really starting to finally understand that wool is probably the most technical fibre out there. We’re seeing Australian wool product diversifying into companies such as Theory, J.Crew, Aritzia, Canada Goose – all through North America and Canada. It’s new and exciting times.

“Wool has been traditionally used in sportswear and suiting in the US, but now the athleisure market is opening up a whole new customer base. I never thought I would see Nike or adidas using wool, but it’s happening. Wool is also being brought back into the uniform industry, with companies such as United Airlines and Delta.”

JULIE HUGHES

President, US Fashion Industry Association

“Sustainability and traceability, those are two of the big issues this year. In our benchmarking survey of members [brands and retailers] that came out this summer, 100% of respondents said that they are currently auditing and reviewing their Tier One suppliers (garment factories).

“What our members are looking for though is how to improve the traceability and information available from Tier Two suppliers and back through the supply chain. So we’re really excited about the information that’s being provided to us about what’s happening on the farm in Australia – regarding both quality and animal husbandry practices – because that’s what our members want to plug into.”

STEVE LAMAR

Executive Vice President, American Apparel & Footwear Association

“Wool is very popular, and our members want to be able to use wool. But being able to tell the traceability story is important because they have to be able to explain to the people that are buying the finished products, where the materials came from, how it was handled, what processes it went through, whether the animals were well taken care of. If they can’t provide the answers, then the customer might opt to go to a different fibre or different source.

“Our message to Australian woolgrowers is to fill out the National Wool Declaration. Increasingly, my members want to see the paperwork all the way to the beginning of the process and it really starts there. The NWD is the foundation of a responsible, sustainable traceability program.”

JULIAN VON BIBRA

Tasmanian woolgrower

“I was overwhelmed by the professionalism of the AWI staff that I met, their commitment to our product and their knowledge of the industry and what we do in Australia. They very much see themselves as part of a really large industry and they have a great commitment and dedication to marketing our wool.

“I think as an industry we need to focus heavily on the animal welfare aspect of our farming practices, recognise where our wool is being sold and the fact that animal welfare is going to only get more of an issue as time goes on, along with sustainability and our land management practices.”

JANE POTTER

Senior sustainability and procurement manager, US brand Theory

“We love wool here in America. Our new range of 17.5-micron wool apparel has been a really successful program for us right off the bat. We’ve had this wool in store for about a year and our sales have been amazing. I think that this has a lot to do with the micron, which is an upgrade from what we were offering before as it feels more luxurious and there is a little bit of stretch in there. People really respond to it and love the feel.

“We offer wool all year round. It’s summer time here right now and everyone’s wearing this fabulous super-lightweight wool suit. We’re not just using wool for suiting though; we do dresses, we have bomber jackets, tailored pants, sleeveless tops – so we really find it a great fabric to work into all different categories.

“Understanding the traceability of where the fibre is from is very important, not only for our company but our customers are so interested in this story. It makes it personal and allows us to connect with the entire supply chain. It’s not that we don’t trust where it’s coming from, but we really want to understand and contribute to a positive supply chain.”

DR PETER JAMES

Animal science researcher, University of Queensland

“The manufacturers and people in the fashion industry that we spoke to understand the qualities of wool and they really want to use it, but in today’s market it’s all about sustainability and good animal welfare practices regardless of how good the fibre is.

“Importantly, there’s competition out there. People are trying to use wool in a way that’s better than their competitors and they’re very interested in the image of wool and that it is seen as a sustainable product.”

WOOLQ PORTAL ON-FARM TRIALS PROVE SUCCESSFUL



Ainslie French at 'Cavan West':
"The eSpeci is really easy and straight forward to use. It helps keep things organised during shearing and makes it easier to plan out how to put together the speci."

Following the success of recent on-farm trials, **the first piece of WoolQ functionality, the eSpeci – an alternative to the current paper speci – is being released this month.**

Throughout January and February, WoolQ developers have been trialing the WoolQ tool in a number of shearing sheds across the country.

By observing the classers and shearing teams as they used WoolQ on their tablets and phones for the first time, the intuitive, user-friendly nature of the tool has been proven and final modifications have been incorporated.

Following the success of the trials, the first piece of WoolQ functionality, the eSpeci, is ready for release in March. Anyone who has registered at www.woolq.com can start utilising the eSpeci tool once it launches.

The WoolQ eSpeci is an alternative to the current paper speci and will allow you and your classer to accurately and efficiently capture your in-shed data at the time of shearing. By capturing this data electronically, not only will it reduce errors, it will enable easier sharing of documentation and a richer collection of information from multiple contributors.

Once the eSpeci is complete, it can be simply uploaded and sent electronically to your broker and can be easily shared with any

other key contacts you wish. This electronic record of data will be stored in your own, secure dashboard on WoolQ and will enable rich and easy analysis of your clip specs, comparisons versus prior year(s) and much more.

ABOUT WOOLQ

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.

The WoolQ Portal aims to be a digital hub for the Australian wool industry by delivering information, data, selling choices and trading opportunities to woolgrowers, their agents and other industry professionals in a single online destination. The functionality within WoolQ will be extensive. Some of the things you will be able to do on WoolQ include:

- Complete and submit a speci

- Monitor your inventory
- Use your data for informed decision making
- Identify opportunities to maximise woolgrower returns
- Easily engage directly with the wool industry.

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.

REGISTER YOUR INTEREST NOW!

To ensure that you are kept updated as WoolQ functionality is released, we are asking woolgrowers to **register their interest**. By registering, you can also express your interest in the opportunity to trial some of the features ahead of full public release. **B**

To register, simply visit www.woolq.com and click on either of the two **Register your interest** bars on the home page to access the quick and easy online form.





WIN!!!

If you submit a photo that gets published in Readers' Photos, you'll receive an autographed copy of Andrew Chapman's *'The Shearers'*.

This 170-page hardback book documents the lives of the Australian shearers as they go about their work in some classic shearing sheds. It is also available to purchase from www.andrewchapmanphotography.com and good bookshops.

"SAY CHEESE, CHEDDAR"


Ella Mazoudier sent in this photo of her two-year-old red and tan Kelpie, **Cheddar**, who had a great time exploring the gorgeous woolshed of family friends of Ella's partner, at **Kingstown** on the Northern Tablelands of **NSW**. Ella says the shed is a beautiful structure that has pulley systems for gates that lift up and runners where the gates slide back and forth, instead of the more common hinged gates. Although it is only a seven-stand shed, it is capable of housing 1,000 sheep with extensive yards all made from timber.



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.

 **Beyond the Bale has also launched its very own Instagram account.** You can follow [@beyondthebale](https://www.instagram.com/beyondthebale) on Instagram and also tag us in your photos for your chance to be featured. We will also be showcasing on Instagram some photos emailed in to Readers' Photos (we'll ask your permission first), so you can keep emailing them in.

DOGS' DOWN-TIME

Lisa Ralston of 'Round Plain' at **Rand** in the Riverina District of **NSW** sent in this photo of their four Kelpies on their smoko outside the shearing shed outhouse, waiting for their call to pen up sheep. Pictured are **Digger** and **Casey** with their sons **Brax** and **Dozer** – it's always a family affair at the shed at shearing time.



TOP DOG

Heather Briscoe of Emu Ridge Farm near **Peebinga** in south-east **South Australia** sent in this photo of their Jack Russell **Teka** who loves working the sheep, either in the yards or out in the paddocks, and works longer and harder than the two Kelpie sheep dogs.





ON THE ROAD HOME

Josie Kingwill of **Adjungbilly**, 35km north-east of Tumut in **NSW**, sent in this photo of her dad, brother and sister walking the sheep to the shed for shearing.



WHAT ARE YOU GOANNA DO?

Ann Sloane of **Savernake** in the southern Riverina of **NSW** sent in this photo of her old long-haired Kelpie, **Jette**, with a goanna that briefly moved into her kennel – Ann says Jette barely moved a muscle throughout! Jette has done many years of loyal and obedient work, particularly in the yards, and still holds sheep well and is invaluable at drafting/loading time.



MANY HANDS MAKE LIGHT WORK

Candice Nix sent in this photo of children **Isla** (3), **Ruby** (6) and **Flynn** (5) helping out on their grandparents farm at **Boyup Brook** in the south-west of **WA**.



THE MILK OF HUMAN KINDNESS

Carolyn Charlton from **Tintinara** in the Murray Mallee region of **South Australia** sent in this cute photo of her twins **Langley Gale** and **Amberley Gale** feeding their very first pet orphaned lamb.



TIME FOR A TRIM?

Fay Alexander of 'Lochindhu' at **Byaduk North** in the Southern Grampians of **Victoria** sent in this photo of **Sam Alexander** and son **Jordie** who is thinking his Dad's hair might need a trim.



WRAPPED IN WOOL

Hannah Marriott of 'Yarallah' at **Goomalibee**, near Benalla in north east **Victoria**, sent in this photo of her three-year-old nephew **Max** who she says loves being part of anything to do with the farm.



NATURE KNOWS BEST

Eric Chandler of **Doodlakine**, 220km east of Perth in the Central Wheat belt of **WA**, sent in this photo of a ground cuckoo-shrike family nesting on his farm. Eric says ground cuckoo-shrikes have nested twice on the farm this season and made extensive use of Merino wool as their nest lining.



UPSY-DAISY

Wibke Tiemann from **Kangaroo Island** in **South Australia** sent in this photo of her pet lamb **Daisy** who had noticed that there was a little bit of grain left in the bucket, so she tipped it over and stuck her head in.

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To find out more, call our customer information line on 1800 678 368 (Monday to Friday).

[^] When applied within 24 hours of shearing. *Bayer data on file.