

Beyond the bale

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Beyond thebale

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FRONT COVER

Pictured are three generations of woolgrowers at 'Boortoik' in western Victoria – Andrew, Will, Bec and Ric Manifold – sporting the new Woolmark Optim WR jacket. The 100% Merino wool fabric used in the jacket is water and wind resistant; the fabric has recently been commercially launched and is being used in both the fashion and outdoor markets. The Woolmark Optim WR jacket has been produced exclusively to enable wool levy payers to experience the benefits of Merino wool in an innovative way – see the back cover to find out how you can purchase it.



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AWI INVESTMENT STRATEGIES

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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

AWI THREE YEAR STRATEGIC PLAN

Our Strategic Plan for the three financial years 2016/17 to 2018/19 was released on 1 July and is available on the AWI website at www.wool.com. We consulted widely with woolgrowers and their representatives to ensure that industry views are incorporated into the plan. Through AWI's extensive Planning and Consultation Cycle, we will continue to ensure that woolgrower levies are directed to projects that deliver the greatest value to woolgrowers. An overview of the Strategic Plan was posted to recipients of *Beyond the Bale* along with this edition.

HIGH PERFORMANCE JACKET: OFFER FOR WOOLGROWERS

Uses the latest Optim™ technology, Merino wool is able to be woven into an immensely dense fabric that is more resistant to water and wind, while retaining all of Merino wool's fine properties, such as breathability. The 100 per cent Australian Merino wool fabric has recently been commercially launched and is being used in both the fashion and outdoor markets. To enable wool levy payers to experience the benefits of Merino wool in this innovative way, at cost price, we have produced an exclusive jacket – the Woolmark Optim WR jacket – that is now available for purchase online at www.wool.com/woolstore. See the back cover for further details.

WOOL EXCHANGE PORTAL

AWI has engaged a Wool Exchange Portal (WEP) Working Group to assess the viability of the major recommendation of the Wool Selling Systems Review (WSSR): the creation of an online WEP. The WSSR Panel's Final Report (available at www.wool.com/wssr) stated a WEP would address a number of issues raised by industry, including reducing transaction costs and digitising the exchange of wool whilst creating greater transparency in the process. The Working Group has been asked to provide AWI with a clear yes or no

decision on a WEP and for this decision to be provided by the time of AWI's Annual General Meeting (AGM) on 18 November this year.

FLYSTRIKE R&D REMAINS HIGH PRIORITY

Animal health and welfare is AWI's highest research priority. Since 2005, AWI has invested \$59 million in animal health and welfare research, development and extension (RD&E), including more than \$34 million on flystrike prevention. AWI remains committed to the RD&E program to both reduce the reliance on mulesing and improve the lifetime welfare outcome of sheep. At the National Wool R&D Technical Update on Breech Flystrike Prevention held in July (see page 34), attendees heard about the progress of industry initiatives including breeding for flystrike resistance, the liquid nitrogen process, and two Meloxicam products Buccalgesic® and Metacam® 20. AWI supports all woolgrowers in their choice of best practice animal health and welfare control options to manage flystrike.

AWI GENETIC INVESTMENTS

The existing Sheep Genetics business plan has concluded successfully, particularly from a wool industry perspective. For the five years from July 2011 to June 2016, Merino breeder membership in MERINOSELECT grew at an average of 8.8% per annum. Sheep Genetics cost recovery targets were comfortably exceeded in each of the past two years, which demonstrated to AWI that the program is self-sustaining. As a consequence, AWI has determined that the MERINOSELECT service no longer requires financial subsidisation, and AWI funding is exclusively focused for genetic research and development activities aligned with AWI's Strategic Plan targets. This includes expansion of the Merino Lifetime Productivity project; support for Merino Sire Evaluation (see page 46); Merino Bloodline Performance evaluations; development of new, low cost commercial technologies for parentage determination and other targeted research approved on a case by case basis.

CANID PEST EJECTORS TO COMBAT WILD DOGS

An efficient tool for delivering 1080 into the mouths of wild dogs and foxes is now available across most areas of mainland Australia. Canid Pest Ejectors are baited, spring-activated devices that propel the toxin directly into a predator's mouth as it pulls upwards on the bait. They are an additional control method – along with regular ground and aerial 1080 baiting, new PAPP baiting, trapping, fencing and shooting – available to woolgrowers and other landholders to reduce wild dog and fox numbers.

SUPERFINE MERINO GOOD FOR SKIN HEALTH

In positive news for the wool industry, AWI-funded clinical studies have demonstrated that suitably selected Merino base-layer garments are healthy and therapeutic for the skin, especially for those with the most sensitive skin such as eczema sufferers (see page 24). The aim of the research is to ultimately open doors to new markets for wool such as babywear, sleepwear and underwear as well as base layer activewear. These are relatively new markets for wool, containing products that are used every day and can command a high retail price per kilogram of fibre used – which is good news for Australian woolgrowers.

AWI ANNUAL GENERAL MEETING (AGM)

The AWI 2016 AGM will be held on Friday 18 November at the Swissotel Sydney at 68 Market St, Sydney. Formal notice and meeting papers will be sent to AWI shareholders in October. AWI shareholders who are unable to attend the AGM in person will be able to view the AGM proceedings via webcast. Further details are available on the AWI website at www.wool.com/agm. The AWI 2015/16 Annual Report will also be released in October.

INTERNATIONAL WOOLMARK PRIZE REGIONAL FINALS

As the 2016/17 International Woolmark Prize regional finals wrap up, we take a look at which emerging design talents will compete at the global finals in January and why the competition remains important for the Australian wool industry.



The designers who participated in the **Australia & New Zealand regional final** of the **International Woolmark Prize**. Back: Daniel Avakian, Beth & Tessa MacGraw, Kacey Devlin, Georgia Currie, Sean Tran, Grace Wood, Madeleine Harman, Jessica Grubiša, Lucilla Gray, Roopa Pemmaraju, Kumar Swain Sudhir. Front: Jake Chen, Jason Alexander Pang, Chris Ran Lin, Lukas Vincent.

The 12 emerging design talents to compete in the global finals of the International Woolmark Prize have been selected at regional competitions across the world, with events in: Asia; Australia & New Zealand; British Isles; Europe; India, Pakistan & the Middle East; and the USA.

The expansion this year of the global initiative into 62 countries signifies the prize's strength and its impact on the fashion industry. It remains AWI's most successful marketing strategy and provides design talent across the globe with the opportunity to be stocked in the world's most influential retailers.

The International Woolmark Prize aims to increase the global demand for Australian Merino wool, by promoting the versatility of the fibre and aligning young talent with commercial opportunities and ongoing mentorship from industry heavyweights.

New demand is generated not only from the loyalty to wool from the designers, but also from consumers who are experiencing the immediate presence of Woolmark-branded apparel in the world's best boutiques and online retailers.

Media coverage in the form of print, digital and social has continued to grow since the prize's launch in 2012. Global reach for the 2015/16 financial year was 426 million impressions on Twitter, 56.5 million impressions on Facebook and an editorial value worth \$40.85 million.

In the Australia & New Zealand regional final held in Sydney, Australia scooped the pool with menswear winner Ex Infinitas and womenswear winner macgraw progressing through to the global finals to be held in January in London and Paris.

Ex Infinitas designer Lukas Vincent fused surf culture with tailoring in an innovative way, using wool in different weights and textures to offer a modern take on menswear.

"I'm super excited to win the International Woolmark Prize," said Lukas Vincent. "It means so much for my business to continue pushing Australian fashion not only in Australia but internationally as well."

macgraw duo – Beth and Tessa MacGraw – showed a two-piece look made up of a wool overcoat with hand embroidered Merino wool flowers, and a wool dress.

"It's been an absolute dream; it's a dream come true and we are absolutely elated," Beth and Tessa MacGraw said after their win. "We are blown away and it means a lot to us. We're ready to show the world what we've got."

With a judging panel comprising a mix of magazine editors, David Jones representatives and international fashion designer Jason Wu, the regional final was the first taste of critical industry mentorship for many of the nominees.

"Our esteemed judging panels and mentors will no doubt provide expert advice to each of the nominees which is invaluable at this stage of their careers," said AWI CEO Stuart McCullough. "The continued support from industry heavyweights, governing bodies and the world's most influential retailers cements the importance of the International Woolmark Prize on the world stage.

"The award continues to highlight the most innovative and modern interpretations of Australian wool at the hands of the world's most promising design talents."

MORE INFORMATION
www.woolmarkprize.com

AUSTRALIA & NEW ZEALAND WINNERS



Menswear model with Australian winner **Lukas Vincent** of **Ex Infinitas**; Australian womenswear winners **Beth** and **Tessa Macgraw** of **macgraw** with model.

ASIA WINNERS



Menswear model with Korean winner **Hyun-min Han** of **MÜNN**; Indonesia's womenswear winners **Toton Januar** and **Haryo Balitar** of **TOTON** with model (second from right).

BRITISH ISLES WINNERS



Womenswear model with winner **Faustine Steinmetz**; menswear winners **Ben Cottrell** and **Matthew Dainty** of **COTTWEILER** with model (second from right).

EUROPE WINNERS



Womenswear winner **Tim Labenda** from Germany with model; menswear winner **Malte Flagstad** of **TONSURE** from Denmark with model and **Adam El-Zayat Hjorth** of **TONSURE**.

INDIA, PAKISTAN & MIDDLE EAST WINNERS



Womenswear model with Indian winner **Nachiket Barve**; Indian menswear winners **Zubair** and **Renni Kirmani** of **Bounipun** with model (second from right).

USA WINNERS



Menswear model with winners **Laurence Chandler** and **Joshua Cooper** of **Rochambeau**; womenswear model with winner **Gabriela Hearst**.



INTERNATIONAL
WOOLMARK PRIZE
LONDON



Sam Cotton and Agape Mdemulla of Agi & Sam, with model (centre), were the winners of the British Isles regional final of the 2015/16 International Woolmark Prize in July 2015.

STRONG PARTNERSHIP WOVEN WITH WOOL

British menswear label **Agi & Sam** is an example of an emerging brand with which AWI has built up a relationship over several years, **helping the designers foster an enduring connection with Australian Merino wool** and reinforce the presence of the fibre in the international fashion industry.



Agi & Sam, representing the British Isles, showcasing their designs to the judges – and putting their best foot forward – at the global finals of the 2015/16 International Woolmark Prize in Florence in January 2016.

Agi & Sam's journey with Merino wool and AWI started back in 2013, when the emerging label participated in AWI's 'Loom to London' program which takes up-and-coming UK-based designer brands to visit select British and European mills.

The aim of the program is to improve designers' understanding of wool textile production and help them forge relationships with sourcing contacts. It is also an opportunity for prestigious mills to showcase their production process and fabric collections with fashion labels working with wool.

As part of the program, Agape Mdemulla and Sam Cotton – the talented design duo behind Agi & Sam – visited a number of mills in Yorkshire including Luxury Fabrics (owners of long-established British brands Charles Clayton, William Halstead, Reid & Taylor and

John Foster) and Abraham Moon & Sons, before travelling to Huddersfield to visit fabric finishers W. T. Johnson & Sons.

"Loom to London was a great experience for us," said Sam. "It was incredible to see the fabric production process in action from start to the finish, especially seeing how most of these techniques are so fundamental to the development of the perfect wool fabric and yarn.

"It made us start to think in a lot more detail about wool and the processes involved to make it into a commodity, breaking each step down and seeing how we could have an effect on its structure and aesthetic."

This exploration of Merino wool's benefits and boundaries helped propel Agi & Sam onto the world stage when the duo won the



Agape Mdumulla and **Sam Cotton** learning about wool from **Luxury Fabrics** sales director Marcia Jennings, who has 35 years of experience in the industry, during a visit in 2013 to Bradford as part of AWI's 'Loom to London' program.

PHOTO: João Paulo Nunes / The Style Examiner

menswear award at the British Isles regional final of the 2015/16 International Woolmark Prize, and then went on to compete at the global final in Florence in early 2016.

The designers believe there are only benefits in using wool. "It's the most luxurious fabrication for menswear," Sam said before the global menswear final. "If you think of suiting and tailoring, it has to be made from wool. If it isn't, it just doesn't work."

As wool ambassadors in the United Kingdom, Agape and Sam have used this role to assist AWI in continuing to foster the development and education of future fashion and textile designers. In September 2014, the duo alongside the great Nino Cerruti co-judged the prestigious textile design awards Texprint for graduate designers, and in February this year they sat on an expert industry panel for AWI's 'Naturally Inspiring' student seminars.

"Our relationship with The Woolmark Company has got stronger and stronger since day one," says Sam. "The company is so great to work with as they really want to push hard to be at the forefront of not only wool, but also in the overall expression of fashion and culture."

Agi & Sam's partnership with The Woolmark Company most recently led to a collaboration with textile manufacturer Dormeuil, with the designers using a new, innovative Merino wool fabric in their latest Spring/Summer 2017 collection showcased in June at London Fashion Week Men's. By using finely spun Merino wool yarns and exclusive finishing, Dormeuil's Exel fabrics have a super stretch quality, allowing exceptional recovery properties and comfort.

B

MORE INFORMATION
www.agiandsam.com

Agi Mdumulla and **Sam Cotton**, along with **Nino Cerruti** (second right), judged **The Woolmark Company Texprint Award** in September 2014 and awarded the prize to **Tali Furman** (second left).



China's first supermodel and **International Woolmark Prize judge**, **Lu Yan**, is the designer behind the fashion label **Comme Moi**, which held a runway show in July to unveil her highly anticipated wool collection titled **China Rouge**.

COMME MOI

UNVEILS WOOL COLLECTION

With red being the lucky colour of China, it seems fitting that **Chinese label Comme Moi** – headed up by **International Woolmark Prize judge** and former supermodel **Lu Yan** – based its new wool capsule collection around this lucky colour.

Chinese fashion label Comme Moi recently unveiled its Autumn/Winter 2016 collection, including a five-piece sub-collection developed alongside AWI.

Former Chinese supermodel Lu Yan is the designer behind the label, with the China Rouge collection to be stocked at retailers including Lane Crawford and Dong Liang as well as Comme Moi's own stores.

The China Rouge collection includes a sleeveless dress, long skirt, tailored trousers and a pea coat – all in a bold red, as well as a navy and red high-neck sweater.

"Sophisticated, timeless styles always feature a simple design, high-quality fabrics and perfect fitting," explains Lu. "Merino wool's high quality, softness and versatility works perfectly with my designs, ensuring excellent tailoring and making them inherently comfortable to wear."

Her relationship with AWI started last year when she was one of the esteemed judges for the 2015/16 International Woolmark Prize Asia regional final. This is an example of the way the competition helps enable AWI to continue to engage

with the jury level of the competition – they are an alumni of the world's leading influencers of fashion and they help attract enormous media attention worldwide to the innovative nature and versatility of Australian wool.

Lu's design philosophy and fashion achievements render her a natural choice for a local designer collaboration.

"We are very privileged to work with Lu Yan and her private label Comme Moi," AWI's Country Manager China, Jeff Ma.

"Her design philosophy highlights the importance of natural fibres and quality details, setting trends for the new generation of fashion-savvy consumers in China. 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."

This is not the first time that AWI has partnered with former International Woolmark Prize judges; other examples include Alexander Wang, Paul Smith, Roland Mouret, Thom Browne, Christopher Raeburn and Richard Nicoll.

B



Leading New York-based fashion designer **Jason Wu** (centre) inspects a freshly shorn fleece at 'Arthursleigh' near Marulan, NSW, on his first visit to a Merino wool-growing property in Australia.

JASON WU

CHOOSES MERINO WOOL FOR SUMMER

Two months before **Jason Wu's Spring/Summer 2017 collection** was sent down the runway at New York Fashion Week, **the leading New York-based fashion designer was in Australia visiting the source of Merino wool** – the fibre which lies at the heart of his latest collection.

Jason Wu's trip to Australia in July was part of the designer's recent partnership with AWI, with him appointed as an ambassador for The Woolmark Company, AWI's subsidiary. Visiting a wool-growing property, 'Arthursleigh' at Marulan in the Southern Tablelands of NSW, he was able to experience the fibre first-hand.

Whilst in Australia he also sat on the judging panel of the International Woolmark Prize Australia & New Zealand regional final – the coveted award that nurtures the world's most promising emerging design talents (see page 4).

Jason Wu's designs have been worn by First Lady Michelle Obama, Reese Witherspoon, Julianne Moore and Diane Kruger, among others. He has received numerous awards, including, most recently, the Swarovski Award for Womenswear at the CFDA Awards. He also serves as artistic director of Hugo Boss womenswear ready-to-wear and accessories.

By partnering with a high-profile designer such as Jason Wu, AWI further positions Merino wool as the premier component in luxury apparel and educates consumers on the benefits of the fibre, ultimately influencing their purchasing decisions.

"Merino wool has always played an integral role in my designs," he explained. "Yet

partnering with The Woolmark Company really allowed me to further explore and develop wool for summer. What my Spring/Summer 2017 collection does is push the boundaries with conventional seasons, creating year-round luxurious pieces, which I could achieve by working with wool."

"Lightweight, featherweight wools are becoming very important with global climate changes and I'm very excited to explore this."

Jason Wu

Wishing to produce a sophisticated, timeless and seasonless collection, the designer created a wool-rich collection with many of the pieces gaining Woolmark certification. The move to include an increased number of Merino wool garments highlights his desire to create trans-seasonal apparel, unrestricted by the limits of the four seasons.

The collection's knitwear pieces use fine Merino wool yarns in a combination of deep, saturated and vibrant hues. For the woven pieces, Wu has used a fabric with a burnout technique creating a subtle and delicate dotted pattern in the fabric. He has also

used a lightweight tailoring fabric with mild structure and modern hand. A third woven wool fabric is a very soft, open weave gauze printed in a faint colouration of his graphic for the season.

Through his multi-cultural heritage and independent spirit, Jason has used his diverse background and experience to become one of the leading forces in American fashion. He is dedicated to creating luxurious, sensual and feminine collections that continue to push the boundaries of refined craftsmanship. He is renowned for his masterful use of colour and embellishments with a distinct spin on American sportswear with a couture sensibility.

"We are thrilled to announce the partnership between Jason Wu and AWI," says AWI CEO Stuart McCullough. "Jason's meticulous attention to detail and innovative vision makes him a perfect partner to demonstrate the timelessness and versatility of Australian Merino wool. We have already seen Jason's unique take on wool in his Fall/Winter 2016 collection, where the tidy parameters of his brand unveiled a serious wardrobe with a luxurious overlay."

B

MORE INFORMATION
www.jasonwustudio.com

BRIGID MCLAUGHLIN: A CUT ABOVE THE REST

A childhood on the land mixed with creativity and passion led **Brigid McLaughlin** to launch her eponymous label that is all about cut, quality and natural fabrics.

For many, the dusty farms of Warren, NSW, seem a million miles away from the star-studded runways of the world's fashion hotspots. Yet for Brigid McLaughlin, her childhood on the land not only engrained her with a sense of country pride, it also paved the way for a career in fashion design, fuelled by her passion for wool.

As a young girl, Brigid knew she wanted to be a fashion designer. "I remember finding a brochure on the floor at home that my eldest sister had left lying about on a Fashion Design course. From that moment on I knew."

After studying Fine Arts at the University of Sydney, Brigid followed her dream and studied Fashion Design at the National Art School. Her journey in fashion saw her working for Charlie Brown, moving to London to join the team at Issey Miyake, returning to Australia to work for David Lawrence and Lisa Ho, before launching her own eponymous label in 2006.

Prior to her move to Sydney, Brigid spent her childhood on 'Merryanbone', a Merino wool-growing property in Warren, a place she says will always feel like home.

"I was very fortunate to grow up there," Brigid says. "I think my country childhood nurtured my creativity which was greatly encouraged by my artistic mother and industrious father. The wide, open spaces and vast sky seem to get more beautiful as I get older. I also firmly believe it instilled very sustainable practices in the way I live my life and run my company."

Devoted to the creation of 'slow' clothing, it's Brigid's team of master craftspeople and the use of natural, luxury fabrics that produces the sustainable fashion she champions so passionately.

"I believe wool to be one of the most sustainable fibres and should be central to the sustainable fashion movement. Fast fashion is destroying both our environment and the fashion industry. Only the very large scale mass producers of disposable fast fashion appear to be the winners at the expense of our environment.

"A customer recently tried on a piece of our woollen knitwear to declare it felt like receiving a big hug."
Brigid McLaughlin

"It greatly concerns me that consumers are not supporting sustainability in fashion with the same gusto, for example, as the building industry. Consumers are willing to pay a premium to build sustainably but not to shop for sustainable clothing. I think many Australian consumers are proud to pay as little as possible for clothing; happy to turn a blind eye to the true cost of this. I would like to see the media do more to educate consumers as to the true cost of this."

And so it's no wonder that the Brigid McLaughlin label heavily features the use of Australian Merino wool throughout its collections, creating timeless, classic pieces made to last. Known for its clean lines and



A pure wool knitted poncho from **Brigid McLaughlin's Winter 2016 collection**.

neutral colour palette, the label has garnered a cult of loyal followers who have fallen in love for the high quality.

"Whether it is knitwear or tailoring, what I love most about wool is the way it falls and the way it can be sculptured into organic shapes. You need to let wool tell you what to do as a designer, that is what I love the most, and it makes my job easier; the soft handle, the warmth, I even love the smell of wet wool, it reminds me of home.

"A customer recently tried on a piece of our woollen knitwear to declare it felt like receiving a big hug. That's what I love about wool." **B**

MORE INFORMATION
www.brigidmclaughlin.com

The woolshed on the wool-growing property 'Merryanbone', Warren, where **Brigid McLaughlin** (right) spent her childhood.





More than **100 Woolmark licensees in China** gathered for an annual seminar to exchange ideas about the wool industry.

CHINA LICENSEES

CHAMPION WOOL

More than **100 Woolmark licensees in China** recently gathered to learn more about the opportunities for wool in the region and in turn increase the demand for the fibre.

With close to three quarters of the Australian wool clip exported to China, and an increasing amount of wool staying in China for domestic consumption, there are a significant number of companies located in China certified to use the iconic Woolmark logo on their products.

Research conducted by The Nielsen Company on behalf of AWI has found that 70 per cent of consumers in China recognise the Woolmark logo, with 91 per cent agreeing that the Woolmark logo ensures quality. Logo recognition amongst consumers is thanks to marketing initiatives from both AWI and its Woolmark licensees, with major players joining forces to promote the natural benefits and technical advancements of wool.

In June, AWI brought together more than 100 Woolmark licensees at its annual one-day seminar, this year in Suzhou, which provided licensees with information and insights into industry trends to enhance the global competitiveness of Chinese wool textile and garment companies.

"I feel particularly proud of being a long-term Woolmark partner at this licensee seminar," said Nanjing Wool Market President Mrs Yang Xiaoxiong. "The company's promotional campaigns have achieved great success in the Chinese market and we look forward to more collaborations in the future."

Fellow attendees echoed this sentiment, with ICICLE CEO Mr Ye Shouzeng saying the seminar was a great platform for companies in the wool industry to exchange ideas, and Mr Cao Xiuming from Jiangsu Sunshine Group stated: "The seminar's innovative content and format is of great inspiration to the industry at large."

ICICLE CEO, Ye Shouzeng; Jiangsu Sunshine Group Technology and Innovation Director, Cao Xiuming; and Zhejiang Xiniao Textiles CEO,

Zhou Xiaotian, participated in a roundtable session, discussing critical issues such as how to retain core competitiveness, as well as brand development strategies and market planning.

Among the other guests invited to speak at the seminar were Professor at Beijing Institute of Fashion Technology, Guo Ruiping; President of China Textiles Development Centre, Li Binhong; and Chief Designer and Founder of apparel brand EACHWAY, Zhao Huizhou. AWI's Country Manager China, Jeff Ma, spoke about wool fashion and innovation in his opening remarks.

During an award ceremony following the seminar, AWI presented awards to key industry players in recognition of their contributions to and promotion of the wool supply chain, highlighting them as leading examples for the industry's future growth and competitiveness. **B**

A fashion show at the seminar highlighted recent innovations within the wool industry.



THE WOOLMARK BRAND

The Woolmark brand and The Woolmark Company are owned by AWI. The Woolmark brand provides a unique, global fibre quality assurance scheme for manufacturers and consumers alike. No other fibre offers this type of scheme.

The value of the Woolmark brand is well established and highly regarded across the world in the apparel, interior textiles and home laundry sectors. Since the creation of the original logo in 1964, more than five billion products have carried the Woolmark logo as a symbol of fibre content and quality assurance.

Through the Woolmark Licensing Program, Woolmark certification allows licensees to use a Woolmark logo, Woolmark Blend logo or Wool Blend logo depending on the fibre content of their wool products. The Woolmark logo provides consumers with guaranteed fibre content and an assurance of quality. The Woolmark brand is backed up by technical specifications for a wide range of wool products and wool care products and stringent testing carried out by independent authorised laboratories.

The income from the sales of Woolmark licenses to companies provides AWI with about ten per cent of its revenue each year, which it invests into further marketing of Australian wool.

As well as being essential to the Woolmark Licensing Program, the Woolmark brand is central to most of the marketing that AWI does to build the demand for Australian wool.

MORE INFORMATION
www.woolmark.com

SHOWCASING THE SOURCE OF AUSTRALIAN WOOL

As **China's luxury consumer market** continues to rise, AWI has put renewed vigour into marketing the benefits of Australian wool in this key market, recently hosting a **media tour** and taking the delegates to the source of the fibre.



Showcasing the source of Merino wool at 'Avington' in central Victoria to the media delegation from China.

Influential Chinese menswear fashion designers, media, retailers and brands recently enjoyed some of the best the Australian wool industry can offer.

Keen to experience the origin of the natural fibre and learn about the versatility of Australian wool, the tour visited a leading woolgrowing property, spent time with key AWI staff, and met with various fashion, design and retail interests.

"We got a very good impression of the Australian wool industry, especially at the award-winning 'Avington' farm," said tour organiser and AWI China Marketing Manager Sherry Yao.

"We saw how the passionate team breeds and raises happy sheep, and produces fine-quality Australian Merino wool in a scientific and sustainable manner. We look forward to using more Australian Merino wool to educate our consumers that wool is a renewable and biodegradable fibre with various natural benefits, which is good for our life and the planet in which we live."

The tour of about 15 Chinese delegates is part of a growing trend in the frequency and number of international wool tours coming

to see the source of Australian Merino wool. This tour in particular was in support of the AWI's Woolmark Gold campaign, which positions Merino wool as the prestigious fibre of choice in the rapidly growing Chinese domestic market for luxury apparel.

Woolmark Gold fabrics must have been woven or spun by one of an accredited group of heritage British and European weavers and spinners. Many of the mills have been operated by the same families for centuries, and just like the woolgrowers who supply them with the precious fibre, they too take pride in maintaining traditional standards of excellence and share in a commitment to innovation.

"It was a valuable experience for me to visit the 'Avington' farm," said Gao Ya from *ELLE MEN China*. "Our consumers can now experience the finest wool because of better breeding conditions created by the growers. Wool is so precious with various natural benefits; why shouldn't we choose wool?"

Terry Hu from premium brand and retailer ICICLE echoed this sentiment, placing great value not only on Australian Merino wool but also on the relationship between the Chinese fashion industry and the Australian wool industry.

"Australian wool is so amazing that I think ICICLE will further tap into our cooperation with AWI and bring more benefits to Chinese consumers," he said.

The importance of China to the Australian wool industry cannot be overstated, with almost 80 per cent of the Australian wool clip now exported to China for early stage processing, however roughly half of this is now consumed in China at retail. In response to this trend, AWI will continue to actively market the benefits of Australian wool to the Chinese textile and apparel industries as well as to Chinese consumers. **B**





The Wool Lab guide to the best wool fabrics and yarns in the world is proving increasingly popular – here the spring/summer 2017 and autumn/winter 2017/18 editions are showcased at The Woolmark Company stand at the Pitti Uomo trade show in June.

THE WOOL LAB HITS 5-YEAR HIGH

Half a decade since the launch of its first edition, **The Wool Lab** – the twice-yearly seasonal guide to the best wool fabrics and yarns in the world – continues to be a **global success** and an important tool for the fashion industry, including brands, retailers, manufacturers, spinners, weavers and the media.

Five years on from the launch in June 2011 of the first edition, The Wool Lab is going from strength to strength.

The Wool Lab is a seasonal guide that contains a selection of the most innovative and quality wool fabrics and yarns commercially available on the market from the best spinners and weavers in the world. Each edition contains a series of themes that include swatches and mood boards that tell a trend story and which encourages retailers and brands to view and source wool as a premium fibre.

“The Wool Lab is created by AWI in collaboration with the most innovative and quality-oriented spinners and weavers from across the world,” AWI Country Manager for Italy Francesco Magri said.

“The collections are being very well received by the trade. Each season, more and more fashion professionals look forward to seeing the latest edition as it offers the chance for them to explore an actual sourcing guide for the best commercially available wool fabrics and yarns in the world.”

In June this year, AWI returned to the Pitti Uomo yarn and fabric trade show in Florence, Italy, to launch its eleventh edition of The Wool Lab, for the autumn/winter 2017/18 retail season.

There are seven themes in this edition, including three dedicated to a style that is suitable for both womenswear and menswear, highlighting the continuation in the rise of androgynous dressing.

There is also a theme targeted at the growing market for athleisure which contains technical and performance fabrics that evoke the world of sport and youthfulness, and another theme for creating wool homeware products and interior textiles.

AWI showcases The Wool Lab at trade shows and at meetings held individually with retailers and brands across the world.

AWI's team of The Wool Lab specialists had more than 330 one-on-one meetings with clients for the previous edition (spring/summer 2017), a 50 per cent increase from the number of meetings for the previous spring/summer edition. The clients are key players in several different markets such as fashion, premium casual and sports, and included the likes of Giorgio Armani, Max Mara, Hugo Boss, adidas, Nike, Helly Hansen, Levi Strauss and Tommy Hilfiger.

The edition generated more than 9,000 requests for swatches from clients, an increase of 80 per cent compared to the previous season.

“We have seen a chain reaction throughout the regions as we present this valuable tool across the globe,” Francesco said.

The Wool Lab is also released in a preview format for spinners and weavers (for purchase) three months prior to the release of the main The Wool Lab book.

A magazine format of The Wool Lab Preview is also made available (for purchase) for a broader audience. The magazine is distributed in more than 12 countries and sold at the best trade shows and in professional bookstores between the most leading trend books.

Francesco says The Wool Lab, as an asset to AWI's subsidiary The Woolmark Company, further reinforces the perception of the company as an international authority on Merino wool.

“The response to the sourcing guide has been unprecedented. It is helping The Woolmark Company to be once again at the forefront of the international apparel industry, influencing the key influencers,” he added. **B**

MORE INFORMATION
www.woolmark.com/thewoollab

ICONIC MILL VISIT SHOWCASES MERINO'S BEAUTY

A recent **media tour** to some of the finest mills of **Biella in Italy**, by Dutch suiting brand **Suitsupply** and supported by AWI, highlighted wool as the ultimate ingredient for premium apparel.

The marketing of Dutch men's fashion brand Suitsupply is well known for its sexually charged photography and advertising campaigns. Its 'Shameless' campaign in 2010 caused quite a stir, with many of the images deemed too provocative to be shown in public.

Yet at the heart of the images, the message is clear: Wear great suits and you'll get the girl. These great suits are tailored from the finest Australian Merino wool, with the cloth spun at some of the best mills in Italy.

To show off Suitsupply's superb fibre of choice, the Dutch suiting manufacturer held a three-day media tour in northern Italy showing that whilst sex sells in advertising, it's their stunning product that really gets people talking. The tour was supported by AWI to increase the media's appreciation of Australian Merino wool and help increase consumer demand for the fibre.

With fashion and style editors descending on Italy from across the world, Australian

Merino wool was indeed put in the spotlight as media guests visited some of the world's most prestigious mills to see the craftsmanship involved in turning fleece into cloth and finally into suits. Media from *GQ Korea* and *USA*, *Esquire*, *Men's Health* and *New York Observer* were just a handful of those in attendance, each treated to a behind-the-scenes look of Vitale Barberis Canonico and Reda.

As *GQ Korea* Editor-in-Chief Lee Choong-Keol explains in the publication's post-trip coverage: "Vitale Barberis Canonico, a Biella weaver established in 1663, has manufactured the prestigious wool fabrics the past 353 years. And Australian Merino remains their top priority resource as it is whiter, softer, and quality-controlled wool."

Luel Magazine Fashion Editor Jung-Hee Park was impressed with the tour and the exclusive look at the Italian mills. "The Woolmark Company is the global authority on wool and has been putting efforts in making Australian wool a premium fibre all over the world,"



Suitsupply Vice-President **Nish de Gruiter** explaining the merits of Australian Merino wool on the media tour to Biella's mills.

he said. "I was impressed that I could visit a fabric mill in Italy to find out the entire path of Australian Merino wool, from the farm to production."

Suitsupply prides itself on the perfect fit, with impeccable attention to detail with on-site tailoring services offered while you wait.

"Fortunately, men today are becoming much more conscious of what they wear and how they look," explained Suitsupply Vice-President Nish de Gruiter. "Our customers appreciate proper fit and an eye for detail. You can buy a designer suit at any price but if it doesn't fit well or the person who sells it to you doesn't know how to fit it, it still doesn't look good. Our job is to teach our staff the ins and outs – that's why every Suitsupply employee attends a comprehensive training program we call Suit School."

It's this sartorial knowledge that is then passed on to consumers, and in the case of the trip to Biella, to the media as well.

And whilst traditional tailoring is the key component of Suitsupply – 'suit' is in its name after all – the brand ensures it has a wider offering, with something for everyone.

"Merino wool, especially in our current season, is an indispensable foundation. Most of our new knits are 100 per cent Merino, giving them a soft, lightweight texture that also keeps you warm," Mr de Gruiter added. 



Advertising from Dutch brand Suitsupply's recently launched 'Rocket Man' themed Autumn/Winter 2016 collection.

MORE INFORMATION
www.suitsupply.com

BUDDING FASHION AND TEXTILE DESIGNERS

DISCOVER WOOL

AWI continues to foster the education and development of both secondary and tertiary students, as well as for emerging design talents. Through global seminars, programs and competitions AWI is able to market the versatility of wool and showcase the fibre's benefits to a worldwide audience.



Textile and fashion students view **The Wool Lab** at a **Naturally Inspiring** seminar.

NATURALLY INSPIRING SEMINARS

AWI continues to host seminars to inspire and educate textile and fashion students, in the early stage of their careers, about the properties and benefits of Merino wool.

AWI began holding 'Naturally Inspiring' seminars for textile and fashion students two years ago. Held overseas and in Australia, the latest seminars included one in Sydney, two in Melbourne, with another to take place in Adelaide next month.

The seminars not only affirm AWI's role as the leading authority in the textile and fashion industry but also showcase a variety of career possibilities available for those wanting to work with wool.

Each seminar brings together an expert panel of speakers from AWI and industry professionals working with wool, such as fashion designers, product buyers, creative directors and fabric suppliers – each bringing

to the mix their own career journey and assisting AWI nurture the future talent of the wool industry.

"The Naturally Inspiring seminar really lived up to its name," said St George College fashion teacher Holly Siles. "My students were so invigorated and inspired by the industry speakers who spoke of their experience, not only at a professional level but very importantly at a personal level. This allowed students to really connect with the content and relate it to their current studies, whether that be senior high school level or more advanced diploma level. It also led to some lively discussions on the way back to college and back in the class room."

CHINA GRADUATE FASHION WEEK

AWI partnered with the 2016 China Graduate Fashion Week in Beijing to help encourage the use of Merino wool by fashion students in China.



A winning design at **China Graduate Fashion Week** by Liu JunJie from Beijing Institute of Fashion Technology.

Just shy of 1,000 fashion graduates took part in the 2016 China Graduate Fashion Week in Beijing, with 31 fashion shows staged during the week. A mix of both Chinese and international student designers, from 33 universities and design colleges took part, which was a record high for the initiative.

AWI officially partnered with the graduate event, offering a series of support programs for new designers. One such program is Merino Wool Classroom, aimed to inspire, connect and educate the next generation of the fashion industry. Titled 'Merino Wool - From Farm to Runway' the inaugural forum drew hundreds of attendees, including student representatives from 33 institutions, directors from 14 design schools, independent designers and members of the media.

AWI also funded the three winners of China Graduate Fashion Week – all up-and-coming designers – to travel to Hong Kong to experience the International Woolmark Prize Asia regional final, as well as visit AWI's new Wool Resource Centre (see page 16). The week in July offered training in the versatility of Merino wool, as well as educational and professional meetings with industry experts to help the young creatives take their skills and visions to the next level.

"Through the China Graduate Fashion Week platform, we hope to provide support and opportunities for local fashion students to grow and refine their skills," explained AWI Country Manager China Jeff Ma.

WOOL4SCHOOL HONG KONG

AWI has expanded its Wool4School student design competition overseas into Hong Kong to help the next generation in this important textile region to champion Australian wool.

AWI's student design competition Wool4School was this year officially rolled out in Hong Kong, as secondary school students were invited to join a tailor-made competition to celebrate the natural benefits and versatility of Australian Merino wool.

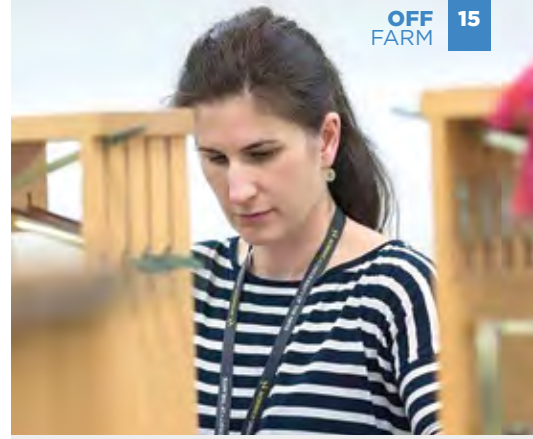
Supported by the Hong Kong government's Education Bureau, AWI encouraged Hong Kong secondary students to design an outfit, made from at least 70 per cent Australian Merino wool, for their favourite sports team. Entries came in thick and fast,

with students designing outfits for a range of sports including running, ice skating, swimming and hockey.

With an expert judging panel including leading Australian fashion designer Jonathan Ward, AWI Group Manager Trade Education Julie Davies, Wiseknit Factory Ltd Chief Designer and fashion lecturer Florence Tang, and Hong Kong Design Institute fashion lecturer Roxana Chan, competition was fierce.

"This year's winning Senior entry (see below) showcases the student's outstanding ability to design a unique, active, contemporary and versatile garment that utilises the sporting theme and heroes Australian Merino wool," explained Mr Ward.

MORE INFORMATION
www.wool4school.com



Lizzie Kimbley and her award-winning Merino wool entry.

BRADFORD TEXTILE SOCIETY AWARDS

AWI funded an award at the prestigious Bradford Textile Society 2015/16 design competition to help promote Merino wool to tertiary students in the thriving UK textile industry.

Textile Design student Lizzie Kimbley from Norwich University of the Arts has won the 2016 Woolmark Company Award as part of the Bradford Textile Society Awards. The award invites entrants to create a woven or knitted fashion fabric containing a minimum 60 per cent Merino wool.

"For this project I looked at textures within decaying buildings such as peeling paint, crumbling plaster, lichen and so on," explained Lizzie. "I wanted a soft yet textured feel to the cloth, so hand-dyed Merino wool combined with some textured yarns in different weights was perfect for this. I was really pleased with the final samples and love the way the yarns settled together after the finishing processes."

The Bradford Textile Society, established in 1893, is the oldest of its kind in Britain and continues to open doors to the next generation of designers and technicians.

As part of the prize, Lizzie has the opportunity to complete one week's work experience with International Woolmark Prize winner Teatum Jones. "I hope to gain an insight into textile design for the fashion industry. I'm looking forward to finding out about their design process, what materials they work with and seeing the fabrics they create."



The winning design in the Senior competition, of Lee Hei Ching at St Catharine's School for Girls.



The winners and placegetters of the Junior and Senior competitions receiving their certificates at the Wool Resource Centre (see page 16).

WOOL RESOURCE CENTRE

PROVES POPULAR WITH INDUSTRY VISITORS

AWI's newly opened **Wool Resource Centre in Hong Kong** has welcomed more than 70 global companies through its doors, plus two woolgrower groups, since officially opening in April.

The Wool Resource Centre is a multi-functional space which has quickly become a global hub for the textile and apparel industries seeking knowledge and support. It also presents new opportunities for the industry in the Asia region as well as for international brands visiting Hong Kong.

Visitors include fashion brands such as Hugo Boss, GAP, L.L.Bean and H&M, supply

chain partners, fashion designers, schools/universities and government bodies, from as far as Australia, Austria, Canada, China, New Zealand, Japan, Germany, the USA and Singapore, as well as Hong Kong – all keen to learn more about the wool industry, the benefits of the fibre, The Wool Lab, product innovations and Woolmark licensing.

"We went to the Wool Resource Centre initially

out of curiosity, to better understand what we read about Woolmark in the magazines," explained Hugo Boss Head of Operation Production Management, Daniele Rolando.

"The Woolmark library is an inspiring area where we met professionals in the field of wool. What was remarkable was the amount of research on dyeing and finishing done by [AWI Technical Manager] Brenda Yang.

"I have also recommended my colleagues spend some time at the Wool Resource Centre, discovering the latest in wool innovation."

Wool brokers Fox & Lillie and Elders have each taken groups to visit the Wool Resource Centre in Hong Kong, discovering the latest in Merino innovations and product development and building relationships with AWI's Hong Kong representatives. With AWI support, the group from Elders also visited spinners Novetex Zhuhai, whilst Fox & Lillie visited garment manufacturer Love Plus Hope, each gaining insight into what happens to their fleece after it leaves the farm gate.

Students from the University of Technology Sydney (UTS) were amongst the first group of students to visit. As part of a tour to both Hong Kong and the Wool Education Centre in China (established in 2014 by AWI in partnership with leading wool textile company Nanshan), the group of ten students not only learned about wool fabric production but also got an international perspective on fashion and where they sit as emerging designers.

"The Wool Resource Centre in Hong Kong was very impressive," said UTS School of Design lecturer and tour organiser Armando Chant. "The sourcing library was particularly good, with examples of different fabrications and where industry and students can obtain them.

"The Wool Lab was available to view, which was brilliant in terms of seeing how wool is used across seasons, market areas and types, with many new innovations within it. We also received a talk from AWI staff which was very informative and who explained the intricacies of how these innovations are developed and what young emerging designers could do."

According to Mr Chant, tours like this are very important for designers, who are the future of the fashion and textile industries.

"The students loved the trip; the most frequent comment was how the experience had opened their eyes to new possibilities with wool, how they never knew how large the textile production industry was, and how there were so many opportunities for them as a young emerging designer."

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

MORE INFORMATION
HKresourcecentre@wool.com
www.woolmark.com/resources



AWI Hong Kong Technical Manager, Brenda Yang, showing some wool innovations to Hugo Boss Head of Operation Production Management, Daniele Rolando, at the Wool Resource Centre.



AWI Country Manager for Hong Kong, Alex Lai, welcoming University of Technology Sydney design students to the Wool Resource Centre.

SUPPLY CHAIN COMES TOGETHER

While the vibrant textile hub of **Hong Kong** is a long way physically and often culturally from the wool-growing properties of Australia, there is a **close and enduring relationship** between the Asian territory's fashion design graduates and a group of woolgrowers from the **Flinders Ranges** in **South Australia**.

Recognising the value of encouraging young fashion designers to use wool, the Flinders Merino woolgrower group for the eighth year running has sponsored an award at the Hong Kong Polytechnic University's (HKPU) Institute of Textiles and Clothing (ITC).

Chloe Dutschke, who jillaroos at Flinders woolgrowers Warren and Jane Luckcraft's 'Bendleby Ranges' property, along with woolgrowers John and June Parnell of 'Glenroy Estate', had the opportunity in June to visit Hong Kong and present the award to the winning student at the graduate fashion show. More than 2,000 textile company representatives, designers, media and bloggers attended the fashion show and presentation.

The aim of the Flinders Merino 'Australia Study Tour Scholarship' – and an AWI-sponsored 'Best Use of Australian Merino Study Tour Scholarship' – is to nurture the use of Australian wool within the collections of the university's graduating fashion students, encouraging them to continue to use wool in their designs as they progress through their careers.

The winners of both awards receive an invitation to visit Australia to learn more about Merino wool and the supply chain, including a visit to the Flinders Merino wool-growing properties.

"It was great to meet the winners in Hong Kong and I look forward to seeing them again and

being a familiar face when they come over to South Australia to see how wool is grown and experience a bit of our life out here," Chloe said.

While in Hong Kong, Chloe, John and June also visited AWI's new Wool Resource Centre to learn more about the work that AWI undertakes to grow demand for Australian wool in this crucial region for global textiles and fashion. AWI also arranged for Chloe to visit one of the major woollen yarn spinners in Hong Kong, Novetex, and the workshops and studios at the PMQ creative hub for local designers.

"At the Wool Resource Centre, we saw first-hand the fabric samples and materials that AWI showcases to the textile trade and brands, and learnt all about the R&D and marketing the organisation does on behalf of woolgrowers," Chloe said. "And at Novetex I was impressed by the huge scale of operations that manufacturing companies have in the region."

22-year-old Chloe, who grew up in the Clare Valley and has a Bachelor of Animal Science from the University of Adelaide, this year also became a Young Farming Champion, sponsored by AWI. The program, run by Art4Agriculture, aims to create an Australia-wide network of enthusiastic young professionals to promote Australian agriculture as a dynamic, innovative, rewarding and vibrant industry.


"Although I am not from a farming background, I have always had a love for animals which has



Chloe Dutschke working at 'Bendleby Ranges' in the Flinders Ranges of South Australia.
PHOTO: Gabrielle Hall, Plains Producer.

led me on an amazing journey and got me a job that I love, on a sheep station, where I am developing my newly discovered passion for wool production," Chloe said.

"My first day on the job was during shearing and crutching time, the busiest times for a sheep producer, and as I stood at the table skirting the wool, running my fingers along the fleece, I really began to appreciate the wondrous fibre that wool is.

"I am super excited to continue educating myself as much as possible about this remarkable fibre, and pass on that knowledge to the public and other youngsters considering the many different career options within the wool industry." 

MORE INFORMATION

www.facebook.com/flindersmerino

www.polyu.edu.hk/itc

www.art4agriculture.com.au/yfc



Chloe Dutschke and John and June Parnell with AWI/TWC staff members at TWC's new Wool Resource Centre in Hong Kong.



Chloe Dutschke and John Parnell representing Flinders Merino at the Hong Kong PolyU Fashion Show 2016 with award winner Sze Tsz-Ki and model wearing a winning design.

adidas

EXPANDS ITS MERINO RANGE



The **adidas** half-zip (left) and dip dye (right) **Primeknit T-shirts** are the result of a three-way collaboration between adidas, AWI and manufacturer Stoll.

Function meets style with two new **adidas Primeknit wool blend T-shirts**, developed in partnership with AWI and **now available worldwide**.

Global sportswear brand adidas continues to build its wool product listing, recently launching two new wool blend items available both in Australia and across the world. The half-zip and the dip dye Primeknit T-shirts are the result of the three-way collaboration between adidas, AWI and manufacturer Stoll.

“As the team researched consumers’ needs for performance-driven and high-style options for their running wardrobe, we chose a Merino story that would provide runners with thermo-regulation, anti-odour properties and movement throughout their run and day,” explained adidas Senior Director Running Apparel and Customization Craig Vanderoef.

The new wool blend Primeknit T-shirts complement adidas’ other Merino apparel and the wool edition of its Ultra BOOST sneaker, which uses similar innovative knitwear technologies to offer athletes their best run ever.

The fully engineered Primeknit Half Zip was a collaboration that utilised the fibre know-how and innovation from the team at AWI, the knitwear expertise of Stoll and the consumer

and design insights from adidas. The results are fully engineered garments that offer the thermoregulation qualities of wool all while having an engineered construction that reduces the possibilities of irritation while on your run.

“The partnership between adidas and AWI is one that brings together experts in fibres with experts in consumers and sport. AWI educated our design and development teams about wool in sportswear and works with us to answer performance needs with new blends and constructions. We grow together in a common cause and help runners better enjoy their sport and our products.”

“This is a truly ground-breaking garment and collaboration.”

Craig Vanderoef, adidas

As one of the world’s leading sportswear brands, adidas prides itself on technical innovation. What the Primeknit garments cleverly deliver is flexibility, thanks to the tighter weaves in high stress areas and a looser fit in less crucial areas.

“Primeknit is an engineered garment or shoe upper that is ‘grown not sewn,’” explains Mr Vanderoef. We work with key knit partners at Stoll and Santoni to create garments that are engineered to move with the body and enhance its functions for a better, more comfortable run.

“The new Stoll machine allowed us to add weather proofing to the front and ventilation in the back so we could have one garment fully take advantage of Merino’s natural performance characteristics. The blend utilises Merino, polyesters, and reflective yarns and the water resistant finish is added after knitting. This is a truly ground-breaking garment and collaboration.”

Helping to promote the two Primeknit T-shirts as well as the Ultra BOOST sneaker are ‘adidas Runners’, a global community of amateur and professional athletes all striving for personal bests. adidas Runners captains Paolo Bellomo and Sara Galimberti have each been championing the apparel, sharing their experiences with their followers on social media. **B**

MORE INFORMATION
www.adidas.com

THE FIBRE OF FOOTBALL

High profile **Channel 7 sports presenter Hamish McLachlan** has featured in the most recent Fibre of Football video produced in-house by AWI.



Hamish McLachlan and father Angus on the family farm at Mount Pleasant, South Australia.

The video of Hamish McLachlan and his father Angus on the family farm in South Australia is the latest in a long line of quality, sought-after videos highlighting the many great stories behind wool and its link with Australian football.

From a family long associated with growing wool, Hamish was keen to be involved in AWI's campaign that has significantly lifted the profile of wool amongst the millions of AFL supporters across Australia. In the video, Hamish and his father Angus talk of the opportunities and freedoms that come with growing up on a farm and the importance of sheep and wool to the family.

"This is the one place where I truly feel at home," Hamish says. "We often speak about how Australia used to ride on the sheep's back and that's what our family has been lucky to do. Sheep and wool is an important part of our family."

The latest in drone technology was used to capture footage of Merino ewes and lambs amongst gum tree lined creeks and granite outcrops that are typical of the landscape in the eastern Adelaide Hills.

There is clearly a strong bond between the two as they recount the years of the four boys growing up; the trials, tribulations and humour of family life on a farm.

Hamish at one stage referencing the day his brother Gillon, now CEO of the AFL, locked him in a cattle crush: "Do you think you'd be allowed to lock your brother in a cattle crush for eight hours these days?" he asks.

"Well, marginally exaggerated at eight hours, we heard your squealing after about eight minutes," laughs Angus.

The video, now available to be seen on YouTube and Facebook, aired on the Channel 7 Game

Day program hosted by Hamish and joins a long line of Fibre of Football videos that have been seen on Channel 7. Similar background videos featuring AFL champions Nat Fyfe, Luke Breust and Bernie Vince have all been shown on Channel 7. Together with a video of Geelong champion Tom Hawkins, the video series has enjoyed close to 10 million views across traditional and social media platforms.

Meanwhile, AWI's Fibre of Football campaign has enjoyed another stellar year with sales of men's and women's woollen jumpers, scarves, beanies and gloves exceeding expectations in 2016.

All AFL clubs have got behind the campaign, which celebrates the great connection between Australia's native game and our wonderful natural fibre. **E**

MORE INFORMATION
www.youtube.com/AWIWoolProduction
www.fibreoffootball.com.au



SHEEDS OPENS SHEEPVENTION

AFL great **Kevin Sheedy** opened Sheepvention in Hamilton, Victoria, this year. Pictured here stroking a lamb: "I'm getting a bit soft in my old age," Sheedy said. To his right is model Lachlan Campbell wearing woollen garments designed by Adelaide design student Toby Andrews who won this year's Australasian Young Designer Wool award at Sheepvention.



Australia players celebrate a wicket while wearing their **Merino wool jumpers** made by **Silver Fleece**, pictured here during the second cricket Test against New Zealand in Christchurch earlier this year – Australia won the Test by seven wickets. *PHOTO: MARTY MELVILLE/AFP/Getty Images*

HOWZAT!

AUSTRALIA BOWLED OVER BY ALL-ROUNDER STATE

The jumper that the Australia Cricket team wears on the field is made of Merino wool with a very South Australian connection. The fibre is grown in the Flinders Ranges, processed by Michell Wool in the northern Adelaide suburb of Salisbury South, and knitted by manufacturer Silver Fleece in nearby Kilkenny.

As Australia prepares for the highly anticipated Test series against South Africa in November, with the final match at the Adelaide Oval, one special partnership worth noting is that of Flinders Merino, Michell Wool and Silver Fleece. This dream team of South Australia's wool industry is responsible for the cream cable knit Test jumper and vest donned by the Aussie cricket team.

Sourced from the Flinders Merino woolgrower group, the 21 micron wool travels 300km or so south for processing at Michell Wool in the Adelaide suburbs, before being knitted into the jumpers and vests at the Silver Fleece's factory, also in Adelaide. From there, the famous knitwear is couriered to Cricket Australia to be proudly worn on the global stage by Australia's best cricketers.

Silver Fleece director Cathy Barton says the company started making the Merino wool jumpers and vests about 40 years ago and liaises with current cricket sponsor Asics, who supplies Cricket Australia with the final product.

"For 40 years the garments have ostensibly remained the same and have always been knitted using pure Australian wool and with the same striping sequence," Ms Barton said. "We still can guarantee Australian

wool and that is why we are pleased to have a relationship with the local Flinders Ranges group of growers and Michell Wool. This is a great story supporting our Australian representatives."

This is the first time, however, that the wool has been directly sourced from Flinders Merino, and according to the woolgrower group's chairman Reuben Solly, they have Michell Wool to thank.

"Silver Fleece contacted Michell looking for a suitable grower group to supply wool with a sustainable story for their Australian cricket team jumpers," Reuben said. "As soon as Michell was contacted they straight away thought of us as we have been working with them in the past, and they knew that we were the ones to help them.

"We had been trying to work with international companies but hadn't any luck, and now we have picked up what we were looking for in our own backyard. To be able to see the end result on a national scale is absolutely brilliant. We can switch on the TV, watch the cricket and say 'hey, look at those jumpers, they look bloody great. We were a part of making them and we are proud of it.'"

Steven Read, CEO of Michell Wool – Australia's largest wool processor and

marketer of wool – says they are very proud to facilitate this program with Flinders Merino and Silver Fleece, and benefit from seeing their woolgrower clients becoming part of the wool textile industry and move beyond the farm gate.

"While it is clearly a wonderful marketing story having transparency in the supply chain to ensure that our iconic cricket sweater is made from locally sourced, high quality wool, there are other benefits to be had," explained Mr Read. "These include improved quality control, better certainty and less volatility of pricing for both the grower and knitter as well as reduced costs in the supply chain with both the growers and knitter working directly with manufacturers.

"Possibly less tangible – but something we believe is of great value – is the learning and understanding of the supply chain and processes involved, something that both the knitter and growers have seen during this program."

MORE INFORMATION

Silver Fleece:
www.silverfleece.com.au (08) 8118 6099
Michell Wool:
www.michellwool.com (08) 8209 4400

FROM Paddock TO PITCH

THE SOUTH AUSTRALIAN HAT-TRICK!

1. WOOL-GROWING IN THE FLINDERS RANGES



Mustering woolly sheep towards the shed for shearing on one of the **Flinders Merino** properties.

2. WOOL PROCESSING BY MICHELL WOOL, ADELAIDE



Wool from the Flinders Merino woolgrower group being processed by **Michell Wool in Adelaide**.

3. KNITTING BY SILVER FLEECE, ADELAIDE



Knitting machines in action at the **Silver Fleece** factory in **Kilkenny, Adelaide**.

THE RESULT? A WINNER ON THE CRICKET PITCH



Pictured is **Nathan Lyon** wearing the **Australian Cricket team's Merino wool jumper** made by Silver Fleece during the 2-0 Test win against New Zealand in February. PHOTO: MARTY MELVILLE/AFP/Getty Images

MERINO BOXING TOP

PACKS A PUNCH

Finding **new markets for wool** is an important function for AWI and testing how wool performs in the **boxing** ring is a new one.

Merino is increasingly being used in sportswear and the adoption of the natural fibre in adidas running gear (see page 18) and even footwear is one high profile example.

At a more local level, wool blend tops are being trialed under the extreme physical exercise of the gym at Mocka's Boxing Club in western Victoria.

The 50% wool, 50% polyester blend boxing singlets being trialed at the club have so far been well received as not only being a little warmer for those training in the winter months but are also more comfortable to wear in a sport where people get very sweaty very quickly.

Made by Lyon Sportswear, the bi-layer knitted blend fabric uses 18.5 micron Merino wool next to the skin and a printable polyester outer, transferring moisture away from the body, which is important for a sport such as boxing, where perspiration is significant.

The tops are an evolution from the Sportwool technology of the 1990s.

"They are certainly very comfortable and I don't feel as though I'm drowning as you do in a synthetic top," says 21-year-old Sam Crawford, the son of Merino studbreeder John Crawford of 'Rock-Bank'.

"They were designed by Samantha Rogers who used to box here and I think she has done a fantastic job, they look great. It will be interesting to see how they perform in the hotter weather, but so far so good. Everyone that has worn them so far really likes them."

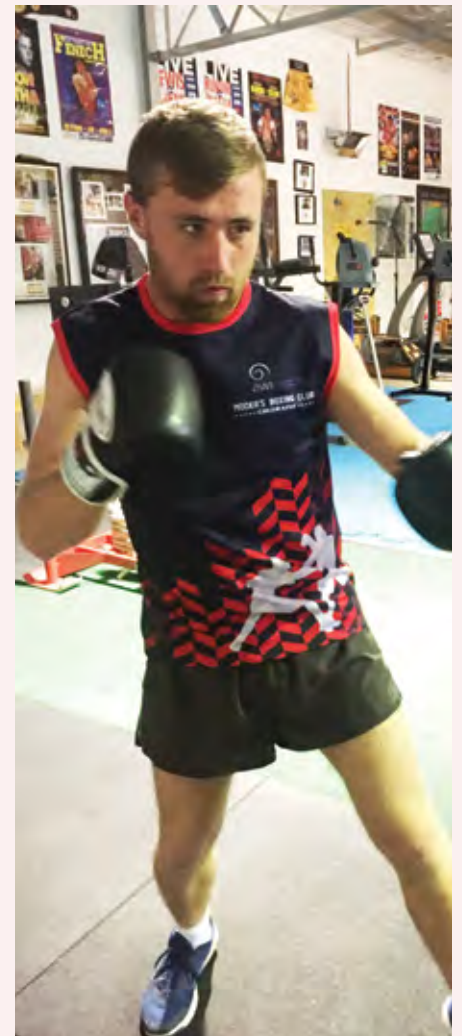
Ray "Mocka" McIntosh set up the gym 15 years ago and in that time his training and mentorship has helped turn the lives around of many dozens of young men and women.

"Like many country areas we have our fair share of social issues and this club has meant a lot to many kids that have come needing direction and discipline," Mocka said. "It's not just about boxing as this not-for-profit club teaches the value of respect and being part of something. I'm pleased to say we've not only trained some very handy boxers but mentored more than 100 kids,

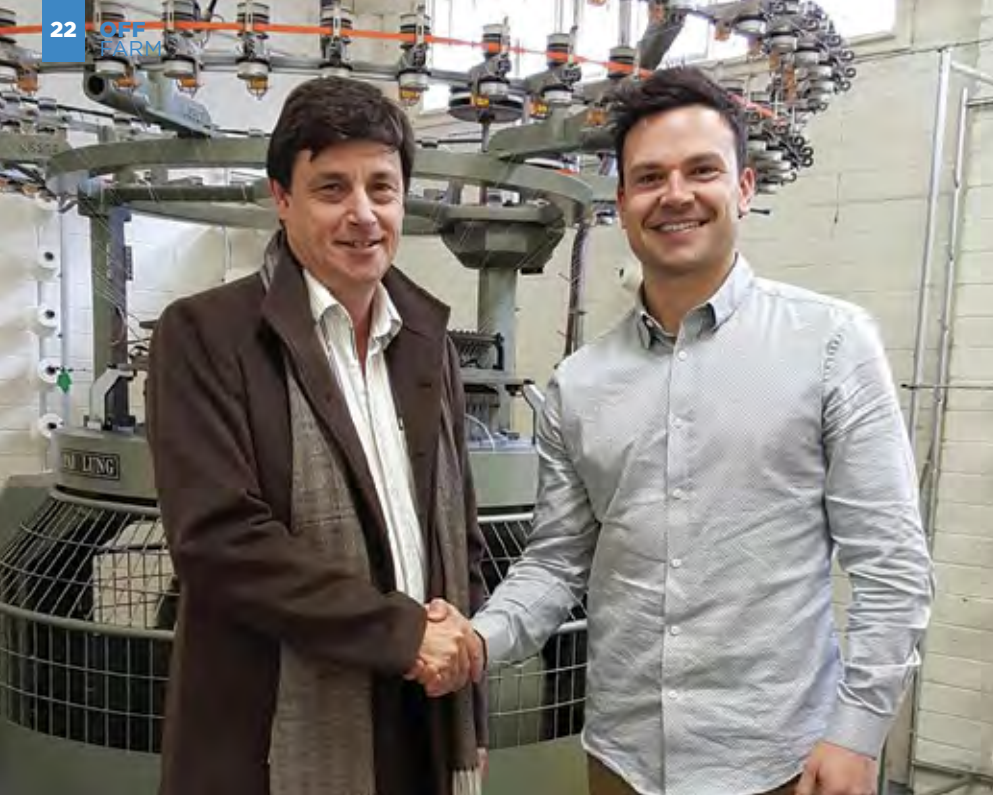
giving them confidence and life skills to take on what the world has to offer them."

Amongst the many boxers who have walked through the doors are 20-year-old Donald Jones, defending Australian youth champion, and Katie Barker, two-time novice and intermediate State Champion.

"We've had a couple of boxers turn professional from here as well, but whatever the case and however good they are, I'm just happy to have helped turn some lives around and having these great new wool tops is a nice part of that," Mocka added. **B**



Sam Crawford says the wool blend boxing singlets are very comfortable as they transfer sweat away from the skin.



AWN managing director John Colley and Hedrena CEO Ben Earl will forge new opportunities in wool for Australian woolgrowers.

HEDRENA AND AWN KNITTING TOGETHER

The purchase in July of the Merino wool apparel manufacturer **Hedrena** by the nation's largest independent wool broker **Australian Wool Network (AWN)** has provided the Victoria-based company with an opportunity to grow its retail network domestically with longer-term plans to expand internationally.

The strategic synergy between Hedrena and AWN will unlock a wealth of specialised Australian wool industry knowledge all along the supply chain, according to Hedrena CEO Ben Earl.

"We saw enormous potential in bringing together our experience under the one umbrella," he said. "Ultimately we believe AWN acutely understands our business and have the best interests of the Hedrena brand and its loyal customers at heart."

Established in 1992 by Ben's parents, Hedley and Irena Earl, to value add to their superfine Merino flock at Ocean Grove near Geelong, the business pioneered the next-to-skin base layer market for fine Merino wool.

Since those early days, the Earl family has thrived by knitting a high quality base-layer product made from Australian Merino wool, with the company generating an annual

turnover of approximately \$4 million. Ben and his brother Julian, along with AWN, will now be creating new possibilities beyond the market created by their parents.

For AWN, established in 1999 and now marketing in excess of 275,000 bales of wool across Australia for some 8,000 woolgrowers, the acquisition is part of a long-term vision to set up new marketing programs and businesses that deliver value to its wool-growing client base.

The purchase of Hedrena follows the purchase in November 2014 of another manufacturer, Hysport, which produces wool garments marketed under the MerinoSnug and Only Merino brands.

AWN's National Marketing Manager Cynthia Jarratt says these acquisitions expand AWN's strategy of bringing woolgrowers and wool processors closer together, to now extending the company's

wool marketing services even further, right through to retail and consumers.

"It is one of the most exciting developments in the wool industry as it provides a direct pathway for a much larger number of woolgrowers to know what happens to their wool once it leaves the farm," Cynthia said. "Previously this opportunity was only available to a handful of woolgrowers with specialty/superior quality wools. The specifications for the wool that we use are much broader meaning that more growers can participate.

"AWN's expansion is providing a future which, although very different from what many of us are used to, is a future that many young woolgrowers are pleased to be a part of. They understand the need to communicate better with our consumers, they understand the digital communication space and how important this is to doing good business, and they know if they want their fibre, wool, to be competitive against all others and achieve the premiums it deserves then we all have to do more and be more actively involved.

"I've been in the wool industry all my life and have always known that we weren't just woolgrowers, we were really working in the fashion industry – but that end of the pipeline just seemed so far away. So it's great to now be actively involved in the production of garments using wool from people who I know have grown the fibre."

Ben says that while next-to-skin products for women in their 40s and 50s have been the core of the Hedrena business, and this will continue, the aim is to reach all generations of people and attract more men to fine wool.

"The goal is to design with the family in mind. We would ideally like to see designs in store that specifically appeal to both mothers and daughters, fathers and sons alike," he said.

"Hedrena has a core focus providing contemporary, minimalist designs for layering travel and everyday wear. This focus requires some out of the box thinking to ensure we offer a range, fit and design to meet customer needs. We released a selection of activewear garments for this winter as part of our ongoing plan to deliver fresh new designs with each season.

"We have plans to open a new store in the heart of Sydney's CBD later this year. Our long-term plans are to expand to the Northern Hemisphere.

"Hedrena places great value on being a Woolmark licensee," Ben adds. "The Woolmark logo represents an independent quality certification that is internationally recognised and it provides a strong connection to the Australian wool industry. It's an integral part of our current business and future plans." **B**

MORE INFORMATION

Hedrena's online store is available at www.hedrena.com.au. Its current retail stores are in Melbourne CBD, Malvern, Geelong, Sydney CBD, St Ives and Adelaide. www.woolnetwork.com.au

WASHABLE WOOL EDUCATION IN CHINA

Many items of wool clothing can be machine washed and tumble dried – a fact showcased to Chinese media recently at an **Apparel Care event in Shanghai** organised by AWI's subsidiary The Woolmark Company.

Consumer research funded by AWI into barriers to the consumption of wool indicates the global perception that wool is hard to care for has been steadily reducing.

However, the same research indicates that those people in China who do not consider buying wool are more than twice as likely to cite wool being “hard to care for” and “not easy to wash” as their global counterparts (14% versus 6%, and 10% versus 4% respectively), and more than four times as likely to cite “shrinks” (14% versus 3%).

As part of an initiative to reduce these perceptions in China, The Woolmark Company's China team recently hosted a wool Apparel Care event in Shanghai, showcasing the most up-to-date innovations and information on machine-washable wool to media and guests. Partnering with white-good manufacturer and Woolmark Apparel

Care partner Haier, the event showed key media representatives just how easy it is to wash wool in a domestic washing machine.

“The Woolmark Apparel Care program aims to bring new wool washing methods to Chinese consumers, changing the impression that wool products are difficult to care for,” explained AWI Country Manager China Jeff Ma. “The program also reflects the high quality standards that The Woolmark Company has long been advocating. We hope more brands will join us in this collaboration to offer local consumers a unique, effortless and natural way to enjoy wool products.”

To mark the event, fashion designer Nicole Zhang, who won *ELLE's* Annual Independent Designer Award, and popular cartoonist Tango created simple but stylish designs for 100% machine-washable wool T-shirts to reflect the core concepts behind the Apparel Care program.



Cartoonist **Tango**, fashion designer **Nicole Zhang** and **AWI Country Manager China Jeff Ma** at the Apparel Care media event in Shanghai.

“I have always loved wool garments, but I used to think they were really tricky to wash and care for,” explained Zhang. “The Apparel Care program highlights how to treat and preserve wool, providing busy urbanites with easy solutions.”

MORE INFORMATION
www.woolmark.com/apparel-care-program

MILLINERY MASTERPIECES IN WOOL

Wool is rightly well known as a premium fibre for apparel, however the fibre's versatility means it is also ideal for hats and headpieces.

So it's only fitting that one of the world's leading millinery education and networking events, the International Millinery Forum (IMF), is held in the heart of one of Australia's



A sculptural felt headpiece made by acclaimed English milliner **Sophie Beale** which was showcased at fashion parades during the **International Millinery Forum** in July.

great wool-growing regions, at Wagga Wagga in NSW.

The IMF is held every second year and hosted by the Riverina Millinery Association. This year's week-long event, held in July, was supported by AWI and attended by more than 130 delegates, tutors and traders from across Australia and the world.

Acclaimed English milliner Sophie Beale – one of five international tutors (including former Royal milliner to Her Majesty the Queen, Ian Bennett) and seven Australian tutors at the event – was selected to teach her sculptural felt techniques.

Narrandera based milliner Jo-Anne Rolfe, who attended Sophie Beale's workshop at the IMF, uses wool felt for her label Vintage Designs.

“Wool is in a class of its own as a quality fibre to work with for millinery design as it's living and breathing with its own unique resilience and thermal property,” Jo-Anne said.

She said industrial flat sheets of wool felt, sold by the metre, were now easier to source by milliners due to the recent world-wide resurgence of interest in this medium. Jo-Anne has also felted wool roving for millinery.

“Pre-dyed wool roving and pre-felted wool batts are readily available in Australia from boutique textile outlets. The various grades of fibre available, from the finest Merino or Corriedale to crossbred wool make it suitable for many design applications.

“The range of both natural coloured and commercially dyed wool roving is astonishing so the possibilities for designing and felting millinery pieces become endless.”

MORE INFORMATION
www.riverinamillinery.com.au
www.sophiebealemillinery.com
www.jo-annemillinery.com.au



SUPERFINE MERINO

GOOD FOR SKIN HEALTH

AWI-funded clinical studies have demonstrated that suitably selected **Merino base-layer garments are healthy and therapeutic for the skin, especially for those with the most sensitive skin such as eczema sufferers.** The aim of the research is to ultimately open doors to new high value markets for wool.

Eczema, also known as Atopic Dermatitis (AD), is approaching epidemic levels in Western nations, with more than 20 per cent of all children born in Australia having a degree of eczema. Sufferers of the condition have dysfunctional skin that dries out, which leads to the skin cracking, bacterial infection, redness, scratching and itching.

However, in positive news for the wool industry, two recent AWI-funded dermatology trials have shown that infant and adult sufferers of eczema have reduced symptoms when wearing superfine Merino wool garments next to the skin.

The successful research findings are being documented and published in high rating dermatological journals, and a

communications and marketing plan has been prepared, in collaboration with the International Wool Textile Organization, to effectively take this positive message about Merino wool to high value consumer markets across the world.

STUDY 1: CLINICAL TRIAL OF INFANTS WITH ECZEMA (MCRI, MELBOURNE)

An AWI-funded study of approximately 40 babies and young children under three years old, at the Murdoch Childrens Research Institute (MCRI) in Melbourne, showed significant advantages of superfine Merino wool base-layers over cotton in ameliorating the symptoms of eczema.

In the study, half the children wore 100% superfine Merino wool for six weeks before changing over to cotton, with the remaining children starting in cotton before switching over to Merino wool after six weeks.

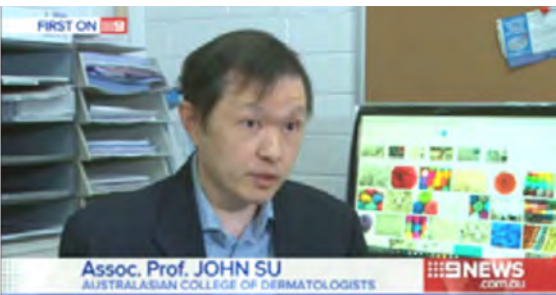
"We found that wearing superfine Merino wool led to an overall greater improvement in eczema, when compared with wearing outfits made of cotton," said Associate Professor John Su.

"This finding challenges prevalent beliefs in the lay and medical communities, as well as findings from older, less rigorously performed studies from the mid-1950s, when coarser diameter and heavier wool garments were used.

"Skin irritation from any fibre type partly relates to the diameter of fibres. While wool can have many fibre diameters, only low



Rheannan Williams, with her two-year old daughter, on **Channel Nine news**. Rheannan said she was delighted with the therapeutic effects of wearing Merino wool on her daughter's eczema: "I would 100% recommend it, it's amazing."



Associate Professor John Su on the Channel Nine news advocating the benefits of superfine Merino wool for skin health.

diameter (superfine) Merino wool garments were used in the MCR1 study.

"When comparing Merino with cotton, there are also other inherent differences in fibre properties: Merino's greater ability to transfer moisture vapour and heat than the other major apparel fibres enable it to maintain a more stable microclimate between the skin and the garment."

These research findings about the beneficial impacts of Merino wool have been presented by Associate Professor Su at dermatology conferences in Brazil (International Society of Atopic Dermatitis), France (European Society of Pediatric Dermatology) and Australia (Australasian College of Dermatologists). A paper entitled 'Determining the Effects of Superfine Sheep wool in Infantile Eczema' has also been submitted for publication in a high impact peer-reviewed dermatological journal.

The findings have already generated media interest. In Australia, the Nine Network broadcasted a very positive news report on the study's findings. Featured in the news report were Rheannan Williams and her two-year-old daughter who suffers from eczema.

"The eczema was red, painful and blistering," Rheannan said. "But within two to three weeks of wearing wool it was unbelievable... her skin is clear... I would 100% recommend it, it's amazing."

"Most importantly, our study indicates that wearing superfine Merino wool may actually help in the management of eczema in young children."

Associate Professor John Su

STUDY 2: CLINICAL TRIAL OF ADOLESCENTS AND ADULTS WITH ECZEMA (QIDERM, BRISBANE)

A parallel study of adolescent and adult sufferers of eczema in Brisbane by the Queensland Institute of Dermatology (QIDerm) has confirmed the beneficial findings of wearing superfine Merino wool.

Dr Lynda Spelman of QIDerm says all the trial participants showed substantially reduced symptoms with none of them displaying an allergic or irritant reaction.

"We have seen substantial reductions in skin dryness, redness and itchiness and in the measured area of inflammation – and for a number of the patients, this is the first time a real solution to their condition has been presented," Dr Spelman said.

She says the results appear to relate partly to the unique moisture management properties of wool.

"Wool is a hygroscopic fibre which has the ability to absorb up to 36% of its weight in water and create a thermal buffer between the skin and the external environment. The wool appears to be keeping the moisture content of the wearer's delicate skin at the levels it should be, preventing it from becoming too dry and therefore reducing the risks of bacterial infection and the desire to scratch the itch.

"Furthermore, superfine Merino is not able to pierce the epidermal layers, due to its small diameter, thus not initiating a localised, inflammatory response."

POSITIVE RESULTS FOR SUPERFINE MERINO WOOL

The trials have been conducted using lightweight, 150 gram per square metre superfine Merino wool garments with a micron range finer than 18.6 microns.

Program Manager of Fibre Advocacy and Eco Credentials with AWI, Angus Ireland, says the studies demonstrate a strong role for superfine Merino in fostering healthy skin and managing eczema.

"The traditional advice to indiscriminately avoid wool against the skin, based on early commentaries that failed to distinguish between wool fibre types, can now be modified to include superfine Merino as a recommended next-to-skin clothing choice.

"It's interesting to note that, prior to the QIDerm study, most patients say they couldn't tolerate wool and many believed they were allergic to wool. However, we didn't have a single patient withdraw from the study due to any types of intolerance of these superfine wools.

"The results from the dermatological research are extremely encouraging and

provide a significant opportunity for Merino wool. The findings are potentially not only profound for sufferers of this debilitating and potentially life-long condition, but also for the wool industry."

The fact that the Brisbane-based study was undertaken throughout the city's hot and humid summer conditions, also shows that low-micron lightweight wool garments are suitable for all seasons.

FROM R&D TO MARKETING

A major focus of AWI's 'Fibre Advocacy' investment program is validating and communicating the health and wellbeing benefits of wool products.

"The major challenge in this area is that globally more than 3 in 10 consumers still nominate perceived itch as a barrier to buying wool products, with around 1 in 10 consumers claiming they are allergic to wool," Angus said.

"If these misconceptions about wool can be addressed then there is huge potential to 'unlock' demand growth for Merino wool because of the strong trend in consumer markets towards healthy and environmentally friendly products.

"This is especially true for markets such as babywear, sleepwear and underwear as well as base layer activewear. These are relatively new markets for wool, containing products that are used every day and can command a high retail price per kilogram of fibre used – which is good news for Australian woolgrowers.

"A risk management activity associated with this research is the development of a specification for garments that are suitable for eczema sufferers' delicate skin, as use of inappropriate garments could quickly undermine this good news story. Low micron (18.5 micron or less), lightweight (150 gram per square meter) Merino garments were used in the studies but comfort is also affected by other fibre, fabric and garment characteristics which may need to be controlled. AWI is developing a Woolmark specification 'Suitable for sensitive skin' which will evolve into a swing tag to help ensure shoppers choose appropriate garments.

"Ultimately, the AWI program aims to increase and maintain demand."



QIDerm research leader **Dr Lynda Spelman**, **Teagan Holland**, **Kurt Davidson** and study facilitator **Dr Eshini Perera** examine the Merino apparel used in their initial studies.

AUMORE'S LOVE AFFAIR WITH AUSTRALIAN WOOL

Bedding brand and Woolmark licensee **Aumore Wool**, which manufactures high quality **Australian Downs wool quilts**, embodies the Italian language's word for love, 'amore', while being quintessentially Australian.



Aumore Wool uses **Downs type wool from Australia** for its woollen quilts and under blankets, the majority of which comes from **Poll Dorset sheep**.



INTERIORS
PURE NEW WOOL

Aumore Wool's quilts are Woolmark certified, which provides consumers with guaranteed fibre content and an assurance of quality.

It's easy to see why Australian bedding brand Aumore Wool chose its name. Feeling its products, looking at its website, or talking to Managing Director Clark Yu, the brand's love and passion for wool and the products they produce becomes evident.

A relative newcomer on the scene, Aumore Wool was established in 2010, born from what Mr Yu says was the simple idea of "wanting to create better products than what were available on the market". Using some of the best Downs wool produced by Australian woolgrowers, Aumore Wool is keen to tell the world of the extraordinary benefits of wool.

"Put simply, Downs wool is the best wool for quilts," says Mr Yu. "The most obvious reason is because of Downs wool's ability to bounce back after being compressed. It is the 'steel wool' of wool fibres, which means you can lay upon it for decades and it will still bounce back to its full size. Of course it is also a natural fibre providing incredible comfort and warmth.

"Sheep breeders and sellers continually tell us stories about how they've had their Downs wool quilts for upwards of 20 years, and still the quilts behave the same as they did when first used."

Yet Mr Yu says Aumore Wool stands out from the pack due to its keen attention to detail, designing and creating wool quilts and blankets using the handmade touches of skilled technicians. Each Aumore wool quilt has its wool placed inside it by real people – not machines – and sews the thin edges of its quilts with a hand-held sewing machine. Notably, each quilt has a zipper which customers can open to see and feel the precious wool fibres which lie inside.

"We treat each quilt like a piece of art," says Mr Yu. "The zipper on the side of Aumore quilts is specifically designed to match our philosophy of handmade touches. We would like our customers to be able to touch the premium quality wool, just as if they had made the quilt themselves."

With a consumer-following across the world, including the USA, Canada, Germany, China and Japan, Mr Yu insists that the combination of using the iconic Woolmark and Australian Made logos are well-valued by its customers.

"To many international consumers, a product that is Australian Made is symbolic of world-class quality standards and craftsmanship.



Aumore Wool places a **zipper** on the side of each quilt, so consumers themselves can see and touch the quality of the wool.

Australian Made logos are becoming even more valuable now that their rarity has also increased. People at home and overseas have faith in Australian made products, and value them over products from other locales. We are very proud of this fact.

"When we started this business, the first people we chose to contact and learn from were the people at The Woolmark Company. From a young age I had seen the Woolmark logo on many different and varied beautiful wool products. I called Woolmark and their team provided me with a list of wool suppliers who we are still working with us to this day. We have also worked directly together with Downs wool sheep farms to help us enhance our knowledge about the product."

By being a true source of information – about where the wool comes from, about wool's benefits, and about how each product is crafted – Aumore Wool is hoping that they are not the only ones falling in love with Australian wool.

B

MORE INFORMATION
www.aumorewool.com.au

IL GUFO & WOOL

MERINO KNITWEAR THAT KIDS NATURALLY LOVE

AWI and leading Italian childrenswear brand Il Gufo continue their healthy partnership that started in 2012.

The common goal of AWI and Il Gufo is to raise awareness of the use of Merino wool as the fibre of choice in clothing, especially in the fashion industry for children and babies, along with reaffirming the message to consumers that wool is easy to wash.

Il Gufo's Autumn/Winter 2016/17 knitwear collection comprises more than 50 garments (jumpers, dresses and cardigans), 70 per cent of which are made with a 100 per cent Merino extra fine yarn, produced by top Biella-based company LANECARDATE.

Many of the garments have received refined and exclusive treatments such as 'dipping' – dye immersion that creates unique shades – jacquard patterns and handmade applications.

Along with other marketing collateral, Il Gufo is launching (following an international video contest) several promotional videos that showcase how children instinctively love Merino wool's properties such as its softness, comfort, strength and elasticity.

People often think that only adults have an answer for everything, that knowledge is their exclusive privilege and that children can

only receive answers from grown-ups. But the videos demonstrate that this is not always the case and often it is adults who 'learn' from the point of view of children – always surprising, fresh and marked by brilliant innocence.

The collection will be available online and in Il Gufo stores this month.

MORE INFORMATION
www.ilgufo.com



This milk white short-sleeved 100 per cent extra fine Merino wool sweater is Woolmark certified and available now as part of Il Gufo's latest collection.

ALL NATURAL FOR LITTLE PAWPAW

When little Anjali came along, **Noël Kumar's life changed** in more ways than one. Aside from becoming a loving mother, she gave up her job as a lawyer and let her creative side flourish, establishing her own range of babywear items under the brand **Little Pawpaw**.

For Noël Kumar, listening to her inner voice was the best thing she ever did. After studying and practising law, she took a leap of faith, changing careers and launching babywear brand Little Pawpaw.

Conscious of only sourcing and using ethical fabrics, Little Pawpaw products are all made in Australia whilst drawing inspiration from Noël's Indian and Australian heritage.

Luxuriously soft Merino wool products are a huge part of Little Pawpaw, with bodysuits, onesies and beanies all gaining the Woolmark stamp of approval. Merino wool wraps,

blankets and booties complete the Merino wool collection.

"Other than being gorgeously soft and gentle on the skin, Merino has so many good qualities that make it my fibre of choice, especially for baby wear."

Noël says she makes a huge effort to ensure Little Pawpaw products are made only with natural fibres, and takes pride in sourcing environmentally friendly materials.

"Consumers are willing to pay the higher price for Merino wool and organic cotton as they



care more about the environment and their health," Noël explains.

"They want to know where their products come from and what is in it. The trend to buy high quality non-synthetic products is increasing, and this is especially the case for baby products. The feedback I hear most from my customers is just how soft and gentle on the skin my fabrics are, which is exactly what they want for their babies."

MORE INFORMATION
www.littlepawpaw.com

MORE VALUE AT MOORA

Completing a **Lifetime Ewe Management course** and a **More Lambs More Often workshop** has highlighted to **woolgrower Jeremy Lefroy from Moora in WA** the benefits of good sheep nutrition and management on reproductive performance, and the flexibility and value that dry sheep offer in a region with variable seasons.

Jeremy Lefroy runs 7,800 Merino sheep plus 4,000 lambs on his 3,000 ha property 'Colvin', 30 km east of Moora in the North East Wheatbelt of Western Australia. His Merino flock grows soft, long-stapled, deeply-crimped wool with an average micron of 18.

Jeremy has recently undertaken a Lifetime Ewe Management (LTEM) course with local farmers followed by a More Lambs More Often (MLMO) workshop, both with advisor Ed Riggall.

Having completed the courses, Jeremy is increasing his flock's weaning rates, while also running a large number of dry sheep – such as wethers and unmated ewes – that provide him with the flexibility to sell them quickly, especially useful in a region with such a significant variation in rainfall.

INCREASED WEANING RATES

"Eight or nine years ago I thought I was doing everything I had to do to run a fairly efficient wool enterprise," Jeremy said. "But with the changes I have now made, I've lifted lamb weaning rates from around 85% to around 100%."

"That increase in weaning rate – and I'm talking percentage of ewes mated to lambs weaned – earns an extra \$40,000-50,000 in revenue each year. That's significant."

"Looking after twins has been the key. Pregnancy testing for twins has been vital. We really make sure that the twin-bearing ewes are the priority especially in dry years."

LTEM is a nationally accredited course developed and run by Rural Industries Skill Training (RIST) and supported by AWI. The farm-based course provides materials and develops skills to help sheep producers improve animal nutrition, lamb survival and weaning rates - see page 31.

It involves small groups of producers learning to best match the energy requirements of their animals with pasture production and supplementary feeding to maximise reproductive production.

MATCHING LAMBING TIME TO GREEN FEED AVAILABILITY

In 2000, Jeremy changed his lambing time, shifting it back later in the year and so lambing started in July and finished in August, which has made his flock among the latest lambing flocks in the district.

"It's made a big difference – we have better ewe and lamb condition score and survival, less tender wool and mid breaks, better lamb growth rates and it is easier to get the ewe in condition score 3 for the following mating."

"Over the past 40 years the winter growing season in southern WA has tended to start later and the rainfall has declined. Sometimes it's not starting until mid to late June in the east Moora district. Lambing during times of no or poor amounts of green feed is unprofitable and requires significant hand feeding."

Of the 3,000 ha at 'Colvin', 700 ha is unarable. Half of the unarable country is fenced off salt-affected land – this is only grazed between May and September. Jeremy sows approximately 100 ha of barley or sub clover pasture each year, but doesn't do any



Jeremy Lefroy in his shearing shed at 'Colvin', 30 km east of Moora in Western Australia.
PHOTO: Danella Bevis

cropping. He leases half of his arable area out to his neighbour to crop to wheat, barley and canola – Jeremy has grazing rights to use the stubbles.

DRY SHEEP ADD FLEXIBILITY AND VALUE

“For Merino sheep enterprises to remain profitable, pasture utilisation has to continue to improve. When the early winter rains don’t arrive on time, grazing capacity is reduced,” Jeremy said. “Dry sheep such as wethers and unmated ewes can be sold quickly.”

Rainfall at ‘Colvin’ averages 415mm, with the winter growing season rainfall for the past 12 years averaging 250mm. However last year, the season started badly for Jeremy and on 20 June he sold 2,000 wethers.

“I could have fed them in confinement, but I didn’t have a known end point as to when I could stop feeding. As it was, even with less sheep, we were still hand feeding until 17 August. An unplanned significant fodder purchase in response to a dry season is one of our biggest risks.

“The feed situation turned quickly from a deficit to a surplus in August/September. We ended up with significant spring feed so I cancelled planned ewe sales and agisted some weaner cattle from the Pilbara.”

EXIT STRATEGIES FOR POOR SEASONS

MLMO provides information, tools and support to sheep producers to build confidence in managing variable seasons and to enhance their awareness of current and future opportunities to reduce the emissions of greenhouse gases from their sheep enterprise. It is funded by the Australian Government and more than 160 workshops have been delivered nationally by RIST over the past two years.

In the MLMO workshop, producers are asked to assign dates to an exit strategy to cope with dry seasons. The exit strategy promoted via MLMO was originally developed by AWI’s ‘Sheep’s Back’ program.

“We went through the workshop manual and wrote down our dates and our strategies – we wrote down our planned DSE on certain dates and what we’d do if it hadn’t rained by certain dates,” Jeremy said.

“When it doesn’t rain, I get pretty emotional; my decision making is blurred,” Jeremy said. “If a plan is written down, the decision making becomes clearer; I make those decisions ahead of or on time and I can think clearly as a result of having a plan.

“If I’d been doing that 20-30 years ago, I would have run more dry sheep – in a wool enterprise it gives you more flexibility and improved pasture utilisation.

“Generally, I sell wethers between one and two years of age. When things go bad, the wethers are the first to be sold. Timing depends on seasonal feed availability and of course optimising stocking rate.”

Jeremy said an exit strategy is always a bit of a chicken and egg strategy.

“We make decisions only knowing the past and with no information about future seasonal prospects.

“The key is to act quickly, because it’s hard to sell when everyone else is selling and therefore becoming a weak seller. Last year I sold my wethers in the wool to store buyers to enable a quick sale. I need to make clinical decisions early and quickly. I learn from all these decisions, so it’s easier next time with past experience. No two seasons are the same.” **E**

MORE INFORMATION

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For information on the LTEM course and/or MLMO workshops, contact RIST on 03 5573 0956 or visit www.rist.com.au



STILL AWESOME



With an average efficacy of 99.7%, based on faecal worm egg count reduction, across properties tested, TRIGUARD delivers the results you’re looking for in a sheep drench.¹ With broad spectrum activity, TRIGUARD provides effective worm control, even against resistant worms.



AUSTRALIA’S NO.1 SELLING COMBINATION SHEEP DRENCH¹ FOR HEALTHY NO.2s.

See TRIGUARD product label for full claims and directions for use. 1. Merial data on file. *AVCAPRE data MAT March 2016. Merial Australia Pty Ltd, Building D, 12-24 Talavera Road, Macquarie Park, NSW 2113. ABN 53 071 187 285. TRIGUARD[®] is a registered trademark of Merial Limited. ©2016 Merial Limited. All rights reserved. TRIG. 15.06.0141D.B7B.QPSA

SMART FARMING WITH DRONES

Research into the use of drone technology to improve on-farm efficiency and management during lambing has been undertaken thanks to an AWI-supported grant.



Screenshot of footage captured by a drone monitoring ewes and recently born lambs.

Reducing lamb losses prior to weaning is a priority for the Australian sheep industry. More than 80 per cent of lamb mortalities occur during the first 72 hours of life, reflecting the challenging 24 hour period after birth where the lamb must adapt to the outside environment and establish a strong bond with its mother.

Minimising disturbance at lambing is therefore critical in order to limit interference to the ewe-lamb bond.

"The use of smart technologies for routine on-farm monitoring is set to revolutionise the agricultural industry," says 22-year-old Amy Lockwood, a PhD student at Murdoch University in Perth, who undertook a project this year supported by a Science and Innovation Award for Young People in Agriculture funded by AWI.

"Unmanned aerial vehicles, or drones, have begun to be used across many agricultural sectors and could provide a labour efficient method of monitoring for sheep producers, particularly during lambing when remote monitoring could prevent mismothering."

Amy grew up in Albany in Western Australia and completed a Bachelor of Animal Science with first class Honours at Murdoch University in 2014. Her PhD project is investigating the effects of lambing density, flock size and stocking rate on ewe-lamb behaviour and lamb survival.

This particular project investigated the potential of using drones to monitor ewes, feed and watering points during lambing.

It included the potential of drones for remotely monitoring ewe-lamb behaviour and identifying the distribution of ewes within the paddock and how it might relate to lamb survival.

This project utilised three drones, operated by commercial drone pilots:

1. a fixed-wing, "Gatewing X100", produced by Aeromatic Unmanned Aerial Solutions
2. a DJI Phantom quadcopter
3. a DJI Phantom quadcopter fitted with a specialised zoom.

The quadcopter flights for monitoring were manually controlled and the footage was watched in real-time using a tablet device. For the quadcopter and fixed-wing flights which generated maps of the lambing paddocks, the flight paths were automated and the images were downloaded and stitched together using computer software.

"The drones were observed to have no effect on the behaviour of the ewes or lambs and therefore could be considered to cause less disturbance than monitoring using a vehicle or motorbike," Amy said. "Using the quadcopter drones, ewes and lambs were able to be monitored remotely with relative ease, and ewes with lambing difficulties were able to be identified.

"Watering points and fence lines were able to be checked, including identification of issues such as leaking water troughs. The availability of hay was also able to be checked and it is possible that drones may enable other supplementary feed sources to be checked depending on the method of feeding (ie trail feeding vs self-feeders).

"Ewe-lamb behaviour was able to be observed, however real-time extended observations were limited within the battery life of the drone (approximately 20 minutes), restricting its use for our specific research given it would sometimes takes several hours for ewes to deliver their lambs."

Amy says the use of drones is currently limited to small paddocks and mobs. Being airborne, drones are able to provide a means of monitoring across a range of terrains and conditions and could therefore prove beneficial in circumstances where

vehicles are unable to access the paddock, including when water-logged. However, drones are unable to operate in wet and windy conditions.

"Whilst drones are currently being used by a small number of sheep producers across Australia, drones will require longer battery lives before they are able to used efficiently to monitor mobs of sheep on commercial farms," Amy said. "With further advancements in drone technology, and in conjunction with other smart technologies, drones could aid in improving on-farm efficiency and monitoring in the future." **B**

MORE INFORMATION
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SCIENCE AND INNOVATION AWARDS FOR YOUNG PEOPLE IN AGRICULTURE

Applications for the 2017 Science and Innovation Awards for Young People in Agriculture close on 14 October.

Each year the Department of Agriculture and Water Resources with its Award partners, including AWI, presents this competitive grants program for innovative research projects that will benefit Australia's agricultural industries.

The awards are coordinated by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) and are open to young people aged 18 to 35 who are working or studying in rural industries.

The Awards aim to encourage science, innovation and technology in rural industries and help to advance the careers of young scientists, researchers and innovators through national recognition of their research ideas. **B**

MORE INFORMATION AND APPLICATIONS
www.wool.com/scienceawards

LIFETIME EWE MANAGEMENT PROGRAM EXPANDED

The popular Lifetime Ewe Management (LTEM) program is being further expanded with a new 3-year round of investment support from AWI.

To date more than 2,400 sheep producers across Australia, representing about a quarter of the national ewe flock have participated in LTEM, since the program began in 2008. The latest funding is to expand the program to a further 1,408 sheep producers over the next three years, with particular focus on Merino specialists.

LTEM improves sheep producers' understanding of the influence ewe nutrition and management has on the performance of both the ewe and her progeny. LTEM is based on groups of 5 to 7 producers that meet 6 times per year with a trained facilitator. During these hands-on sessions, the group visits each participating farm and learns skills in condition scoring, pasture assessment and best practice ewe and lamb management to increase reproduction efficiency and wool production, mainly through reducing ewe and lamb mortality. LTEM participants typically record a lift in weaning rates of 7-8 per cent and a significant reduction in ewe mortality.

Managed by Rural Industries Skill Training (RIST), LTEM is structured to maximise the retention of knowledge, development of skills and practice change.

General Manager Research at AWI, Dr Paul Swan, said the LTEM Program is a key foundation to achieve AWI's strategic intent to lift the reproduction rate of the national flock and in particular Merino ewes.

"In addition to our commitment to providing wool levy payers with ongoing access to the LTEM course, we are also piloting a range of new initiatives such as the mob-size lambing project, the Merinos-to-Market and Lambs-Alive workshops, which build on and complement the LTEM foundations."

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

"LTEM is a great example of where investment in initial research, its further development and an effective extension model has paid off handsomely for the woolgrowers we work for, and it will continue to generate benefits for many years to come," Dr Swan said.

"Since the LTEM started in 2008, AWI has covered 70-75 per cent of the costs of all LTEM training sessions, as part of the \$59 million we have invested in the health, welfare and productivity of Australia's wool sheep."

RIST CEO Bill Hamill welcomed the new assistance.

"I commend AWI for their confidence and continued financial investment in the LTEM Program which continues to have a significant positive impact on the productivity and profitability for the woolgrower participants in this program. LTEM is one of the most successful training programs to have been delivered in the wool industry and AWI's ongoing support is demonstration of the positive future for the wool industry in Australia." B



A Lifetime Ewe Management (LTEM) group developing their condition scoring skills.

MORE INFORMATION
www.wool.com/LTEM

To set up an LTEM group in your local area or to join a group in your area, call RIST on (03) 5573 0943 or visit www.rist.com.au

WHAT AMAZING



When it comes to sustainable parasite control, faecal worm egg count reduction is a key test to determining drench efficacy. The combination of three broad-spectrum actives in TRIGUARD delivers effective worm control for sheep, with an average efficacy of 99.7% across properties tested.¹

AUSTRALIA'S NO.1 SELLING COMBINATION SHEEP DRENCH¹ FOR HEALTHY NO.2s.





Wild dog pulling at a Canid Pest Ejector. PHOTO NSW Office of Environment and Heritage.

CANID PEST EJECTORS

1080 DIRECT INTO THE PREDATOR'S MOUTH

A **spring-activated device that propels 1080 into the mouths of wild dogs and foxes** is a new tool – complementing other available control options – now being used by woolgrowers and wild dog control groups in the war against the predators.

A new and efficient tool for delivering 1080 into the mouths of wild dogs and foxes is now available across most areas of mainland Australia.

Canid Pest Ejectors (CPEs) – previously known as M-44 ejectors – are baited, spring-activated devices that propel the toxin directly into a predator's mouth as it pulls upwards on the bait.

The firm upward pulling action required to trigger the toxin delivery is easily achieved by wild dogs and foxes, but much less so by most non-target species.

The toxin in the CPEs is contained within a sealed capsule that can be left in the field for extended periods. This means that capsules only need to be replaced if they are activated, potentially saving farmers both time and money. Though more expensive than traditional baits, the CPE devices can be used for many years. Only the poison capsules and bait lure heads need to be replaced. It is important to check the dried meat ejector heads about once each month and to refresh any lure heads that are weathered, damaged or eaten by ants.

The device is staked to the ground by a sturdy metal peg and cannot be easily moved. This 'set and stay' design prevents the moving and caching of baits that can put domestic and working dogs at risk.

ANOTHER CONTROL TOOL FOR FARMERS

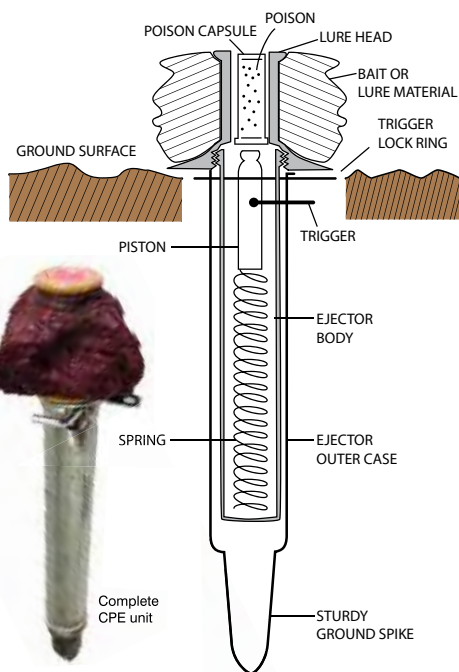
CPEs were first developed in the USA in the 1930s, for the control of coyotes, and have undergone research and assessment over the past decade by departments of primary industries and environment and Animal Control Technologies Australia (ACTA) in several Australian states.

The ejectors have been used extensively by NSW National Parks and Wildlife Service (NPWS) in national parks and on private land, according to Senior Pest Officer with NPWS, Rob Hunt.

"The CPEs pick up wild dogs across a range of areas with foxes and wild dog pups being particularly susceptible," he said.

"The ejectors have won over a lot of farmers who like that extra level of bait security and the ability to shut down their baiting program at any time knowing there is no 1080 left on the property.

"The long-term stability of the capsules and the fact that they only have to check them once a month is also very handy, although if there are a lot of pests in the area more frequent checking may be required."



Schematic of assembled CPE

Following the recent successful registration of the 1080 toxin capsules by the APVMA after detailed submission by ACTA and subsequent amendment of state pesticide control regulations, wild dog control groups and landholders are now starting to use the CPEs to complement other wild dog and fox control options.

The AWI-funded wild dog coordinator for western NSW, Bruce Duncan, said the CPEs are seen by farmers as a valuable addition to existing control programs where baiting and trapping are used.

"The ejectors are anticipated to have pretty significant impact, especially here in the remote western areas of NSW. It allows farmers to have a 'sentinel' guarding their water points and the more isolated parts of their farm, all the time, throughout the year.

"Last year's spring baiting season was the first to see the use of the ejectors in the Western Division. They are particularly effective when used alongside the twice-yearly aerial baiting, and together they have caused a drop in wild dog attacks on stock."

Bruce emphasises that the CPEs are an additional control method – along with regular ground and aerial 1080 baiting, new PAPP baiting, trapping, fencing and

shooting – that woolgrowers have the option of choosing.

"The success of control also relies on the coordinated effort of all landholders working co-operatively with government wild dog controllers. Our aerial and ground baiting program has really increased participation of landholders resulting in a substantial decrease in dog activity and dog sighting," Bruce added.

AVAILABILITY AND USE

The CPE unit, available from ACTA, is a mechanical device that is not required to be registered as a chemical product and can therefore be purchased, along with lure heads, without restriction. However, the ACTA-developed 1080 toxin capsules do contain a regulated poison that is registered by the APVMA. Capsules are not available without the purchaser and/or user possessing appropriate accreditation.

Capsules containing 6 mg of 1080 where wild dogs are the primary target, or 3 mg if foxes are the primary target, are available from ACTA or approved 1080 product distributors or government agencies. Procedures are the same as for 1080 bait products.

Ready-made lure heads are available from ACTA with fresh kangaroo meat dried onto

the spiked lure head; the meat is pre-treated with antibacterial and antimould agents and cryovac packed to provide a long-life lure-head. Users may alternatively choose to prepare their own lure heads.

It is recommended that new users of the CPEs seek advice from an existing experienced user on the best method for setting the ejector prior to deployment of toxin capsules. AWI is providing CPE Training Kits to each state to ensure the best possible stewardship of the CPEs. **E**

MORE INFORMATION
www.animalcontrol.com.au

Watch a video on YouTube of Rob Hunt demonstrating the ejectors:
<https://youtu.be/6Tdq7FKxe08>



A 24-page booklet from ACTA describing the CPE and its use is available on the ACTA website at www.animalcontrol.com.au

NEW GUIDE TO BAITING

A new 32-page 'PestSmart' field guide that provides information on strategies to deliver baiting programs for wild dogs and foxes has been published by the Invasive Animals CRC.

The guide has been developed for producers and other land managers and includes practical information and approaches to improve the effectiveness of baiting programs for the protection of livestock and biodiversity.

Authored by the National Wild Dog Facilitator, Greg Mifsud, who is funded by AWI, the 'Field Guide to Poison Baiting: Wild Dogs and Foxes' brings together a range of methods for the placement and use of wild dog and fox baits in various landscapes across the country.

Written in a simple to follow style, the guide includes plenty of photos and diagrams to aid the readers' understanding. It covers reasons to bait, when to bait, baiting strategies, working dog safety, and tips and tricks to improve baiting success.



The extensive ground baiting section covers predator behavior; site selection; bait placement and replacement; monitoring bait take; bait types, storage and handling; decoy or carcass baiting strategies; and opportunistic, ad hoc baiting programs. **E**

MORE INFORMATION
The publication is available to download free from www.pestsmart.org.au

The new field guide to poison baiting for wild dogs and foxes.

JUST INCREDIBLE



TRIGUARD is a proven performer in the field, with an average efficacy of 99.7%, based on faecal worm egg count reduction, across properties tested.¹ Its combination of three broad-spectrum actives delivers effective worm control for sheep.

AUSTRALIA'S NO.1 SELLING COMBINATION SHEEP DRENCH¹ FOR HEALTHY NO.2s.



Woolgrowers are in the best position to determine the **best-practice** animal health and welfare program for their sheep.



PROTECTING THE NATIONAL FLOCK AGAINST FLYSTRIKE

R&D PROGRESS CONTINUES

At this year's **National Wool R&D Technical Update on Breech Flystrike Prevention**, significant and incremental progress was reported from a wide spectrum of research projects and trials conducted on farms and in laboratories.

Woolgrowers, researchers, consultants, commercial providers, vets and welfare experts discussed the latest developments and trial results from AWI's flystrike prevention program at the National Wool R&D Technical Update on Breech Flystrike Prevention held in July in Sydney.

Protecting the national flock from flystrike remains the top research priority at AWI. Since 2005, more than \$34 million has been invested by AWI on measures to combat flystrike as part of a greater long-term investment of more than \$59 million in animal health and welfare measures.

Projects have now been funded across a suite of genetic, mechanical, chemical and novel approaches to flystrike prevention.

Research has shown that breech strike is heritable, and that breech wrinkle, dag, urine stain and breech wool cover are the key risk factors for flystrike (see page 36). Industry has had access to commercially available breeding values for wrinkle, dags and cover since 2009. Breeding Values were released and are managed by Sheep Genetics.

The role of skin bacteria and odour continues to be investigated as other possible risk factors for flystrike, with research partners CSIRO, Department of Agriculture and Food Western Australia (DAFWA) and the University of Western Australia.

Various on-farm trials using liquid nitrogen (see page 35) have been shown to reduce breech wrinkle, dags and breech wool cover. The liquid nitrogen process was developed by Steinfort Agvet Pty Ltd with support from AWI. Further work is being conducted

to refine application, reduce variability of results between sheep, and determine the commercialisation of the process.

The APVMA has formally approved the registration of the intradermal SkinTraction®, but it has done so with tight label restrictions. The restrictions include sheep must have less than 8mm wool, have no shearing cuts, be of greater than 12 months of age and 30kg bodyweight, in condition score greater than 2.5. AWI has decided not to fund work linking biological harvesting with Skin Traction®, but continues to negotiate a way forward with Cobbett Technologies, the owners of the SkinTraction® patents.

The genome of the blowfly has now been mapped which offers the opportunity for a greater understanding of what attracts the gravid *Lucilia cuprina* female to sheep. Knowing the genes that allow the larvae to feed on the skin and underlying tissues, or the gravid female fly to find susceptible sheep on which to lay their eggs could also produce more targeted control measures in the longer term. These could potentially include vaccines to prevent the larvae feeding on the skin and underlying tissue or new control chemicals that kill the larvae or repel the female fly.

Trials to assess new pain relief products (see page 37), and the value in having both pre- and post-operative drug combinations are being conducted by the CSIRO. There has been large scale adoption of post-operative pain relief over the past five years.

A Meloxicam product Buccalgescic® was registered in August 2016 for castration and tail docking, and it is hoped that formal

registration for mulesing will occur in coming months.

Another Meloxicam product Metacam® 20 (injectable) was registered in April 2016 for the alleviation of pain and inflammation.

The farmer-focused website FlyBoss (www.flyboss.com.au), run by the University of New England and funded by AWI and MLA, contains a large amount of information for woolgrowers on best practice flystrike control. The FlyBoss program also conducts training for chemical retailers and workshops for agricultural consultants and advisors. Chemical prevention of flystrike is a very important option (along with crutching, breech traits, tight lambing and, time of shearing) for woolgrowers, however existing chemicals need to be used wisely to delay onset of resistance.

There continues to be ongoing consultation with all stakeholders on the AWI's Breech Strike Prevention program. The Australian Veterinary Association and Genetic Review panel regularly assess the progress of the program, and their reports are on the AWI website. AWI also holds six-monthly meetings with the main animal welfare lobby groups in Australia. AWI undertakes consultation with state welfare and federal agencies, and supply chain customers in the processing, manufacturing and retail sectors. Breeder feedback on the breech strike RD&E strategy is also used to update the RD&E program each year.

AWI has held a National Wool R&D Technical Update on Breech Flystrike Prevention event every two years since 2008. **B**

THE PRESENTATIONS AND SPEAKERS AT THE EVENT

R&D Breeding – DAFWA Mt Barker, CSIRO Armidale

Dr Johan Greeff, Department of Agriculture & Food, WA
Dr Jen Smith, CSIRO

R&D Breeding – DAFWA and UWA Odour and Bacteria

Dr Johan Greeff, Department of Agriculture & Food, WA

Australian Sheep Flock Demographic Changes – the Past 10 years

Dr Paul Swan, General Manager, Research, AWI

Industry Progress in Breeding for Breech Strike Resistance

Geoff Lindon, Program Manager, Productivity and Animal Welfare, AWI

Fly Genome Update of Past Work and Current Project

Dr Trent Perry, The University of Melbourne

Liquid Nitrogen Progress to Date

Dr John Steinfort, Steinfort AgVet Pty Ltd, Warragul Vic

SkinTraction Update

Geoff Lindon, Program Manager, Productivity and Animal Welfare, AWI

Pain Relief Product Update – Meloxicam, Metacam, Tri-Solfen, NumNuts

Geoff Lindon, Program Manager, Productivity and Animal Welfare, AWI

CSIRO Pain Relief Study

Dr Alison Small, CSIRO, Armidale

ParaBoss, Successes 2013-2016 and New Phase 2016-2020

Dr Lewis Kahn, University of New England, NSW

AWEX National Wool Declaration

Dr Kerry Hansford, Australian Wool Exchange Ltd

Key Messages – Discussion

Geoff Lindon, Program Manager, Productivity and Animal Welfare, AWI

MORE INFORMATION

The presentations from the event are all available on the AWI website at www.wool.com/flystrikeRnDupdate

BREECH MODIFICATION ALTERNATIVES

AWI has been working on several potential breech flystrike alternatives in recent years, including a liquid nitrogen process, the SkinTraction® intradermal and laser treatment.

LIQUID NITROGEN PROCESS

Development has continued to take place of a process using liquid nitrogen to reduce tail and breech wrinkles and breech wool cover. The liquid nitrogen process was developed by Steinfort Agvet Pty Ltd with support from AWI. Further work is being conducted to refine application, reduce variability of results between sheep, and determine the commercialisation of the process.

Liquid nitrogen is used in human medicine for the removal of warts and some skin tumours, and in veterinary medicine such as for the removal of carcinomas in cattle and sarcoids in horses.

The cryogenic effect of liquid nitrogen freezes skin cells when applied topically. The cells freeze to temperatures of minus 50°C. Ice crystals form within the cells and, upon thawing, the intra-cellular structures and cells are damaged. Healing takes place over a six to eight week period, and an eschar forms which resolves in time.

The liquid nitrogen process is intended to be a procedure conducted in conjunction with lamb marking or on weaners. Crutching prior to application is not required for lambs. Loose skin is raised into skin clamps that have liquid nitrogen dispensing rods engineered so as to apply the liquid nitrogen to the elevated skin fold. The liquid nitrogen is applied to positions that mimic surgical mulesing – the areas either side of the breech and either side of the tail.

A lineal scar forms where the two skin edges have reformed. Resultant skin reduction occurs decreasing excess skin and associated wrinkles. No open wound is created.

It is intended that contractors or certified woolgrowers would perform the procedure. The total cost of the liquid nitrogen process is expected to be \$2.00 per lamb, but will be dependent on the location/remoteness (considering transport and storage logistics) and the number per day that can eventually be achieved.

Adequate ventilation during use is imperative, such as outdoors or with circulation in shearing sheds.

SKINTRACTION® INTRADERMAL

The intradermal agent SkinTraction®, developed by Cobbett Technologies Pty Ltd with support from AWI, has been shown to significantly reduce wrinkle and increase breech bare area in Merino sheep.

However, while the Australian Pesticides and Veterinary Medicines Authority (APVMA) has registered the SkinTraction® intradermal (in May last year), it did so with very tight label requirements including: the lamb must be more than 30kg, more than 12 months old, in higher condition score than 2.5, have less than 8mm wool length and no skin cuts or inflammation, have received a vaccination for tetanus, and not be of SRS bloodline.

SkinTraction® is sodium lauryl sulphate (SLS), an anionic surfactant commonly used in toothpaste, shampoos, cosmetics and food. A needleless applicator delivers a measured dose of the SLS intradermal in the skin not through the skin. This results in breech modification without an open wound. The key concern is removing risk of SLS passing through the skin layer into underlying tissues.

AWI funded Cobbett Technologies from 2008 to 2013 during four phases, from proof of concept to pre-commercialisation. Cobbett Technologies had exclusive rights to commercialise the technology and make it accessible to Industry within 12 months which did not occur. AWI continues to hold negotiations with Cobbett Technologies to find a way forward.

LASER TECHNOLOGY

Scoping trials into the use of laser treatment were unsuccessful and the process did not pass proof of concept.

The laser equipment used was similar in concept to that used for human hair removal with the application settings adapted to address wool growth patterns unique to Merino sheep. While this process has proved unsuccessful, research using a new dual laser (using tattoo removal technology) is being reviewed. **E**

MORE INFORMATION

The latest R&D results for breech modification alternatives were presented at last month's National R&D Technical Update on Breech Flystrike Prevention and are available on the AWI website at www.wool.com/flystrikeRnDupdate

BREEDING FOR BREECH STRIKE RESISTANCE

AWI has conducted research to identify sheep with high natural resistance to breech strike. Breeding naturally resistant sheep is a long term, sustainable solution to reducing the risk of breech strike in Australian sheep.

KEY MESSAGES

- Breeding is an important option in the basket of tools for woolgrowers to reduce the risk of breech strike, particularly in low dag environments, but there is no single simple 'recipe' for every woolgrower.
- The rate of response will be different in every flock. Like any selective breeding, gains are cumulative and permanent.
- Sheep/wool type, production system, environmental factors and climatic variation between regions and between years strongly influences the risk of flystrike.
- In high dag environments, crutching and the use of prevention chemicals will continue to play important roles, as dags can swamp both mulesing and low wrinkle/low breech cover genetics.

Two self-replacing breeding flocks at Mt Barker in WA (medium wool, Mediterranean environment) and Armidale in NSW (fine/superfine wool, high summer rainfall, longer flystrike season) indicate that different factors, in different environments have differing effects on the level of breech strike resistance in sheep. Johan Greeff of DAFWA and Jen Smith of CSIRO presented the latest research findings from these two sites at the National R&D Technical Update on Breech Flystrike Prevention in July (see page 34).

The key conclusion from research at both sites is that large differences in the incidence of breech strike exist between sire progeny groups, and some sires' progeny are naturally very resistant to breech strike.

ARMIDALE AND MT BARKER RESULTS

At Armidale, where breech wrinkle and cover are high, those traits are the major cause of breech strike. Few animals in that environment become daggy, but when they do the risk of strike is high.

At Mt Barker, the sheep are low in wrinkle and breech cover, but because they are in a high dag environment during winter and



Sheep from the breech flystrike resistant line at the CSIRO's Armidale research site.

spring, the incidence of breech strike due to dags is higher.

Results at both sites show that when breech wrinkle is score 2 or less, dags score 2 or less, urine stain score 2 or less, and breech cover score 3 or less, the risk of breech strike is minimised to a level similar to 'mulesed'. If sheep are at this target, either through breeding, some form of breech modification, or both, then the risk of breech strike is low. As the breech trait scores are reduced further, the risk of breech strike continues to fall.

The rate of progress in improving breech strike resistance through breeding varies with sheep type, environment and production system. Reducing wrinkle and breech cover is easier in medium wool type sheep and harder in fine and super fine type sheep as there are just fewer animals with low wrinkle and cover in these types. Reducing dags is very difficult in high dag country for all sheep types, where the environmental causes of dags swamp the slow genetic progress.

A key message for commercial woolgrowers is that there are ram breeders, particularly with medium and fine wool type sheep, breeding sheep with significantly lower wrinkle, lower breech cover as well as lower worm egg count sheep with relatively high fleece weight.

ODOUR AND SKIN BACTERIA

While dags, urine stain, wrinkle and wool cover are key breech strike risk factors, researchers found some sheep that have

high dag, stain, wrinkle and wool cover that do not get struck, and some sheep with low dag, stain, wrinkle and cover do get struck.

Therefore, breeding plain-bodied sheep or low dag sheep will not necessarily solve all breech strike problems. The five known indicator traits (dags, stain, wrinkle, cover and colour) and the interactions between them are important but do not explain all the causes of breech strike.

It is suspected that the 'as yet unknown' risk factors are differences in odour and bacteria between sheep. Studies continue into determining what it is that is attracting female blowflies (*Lucilia cuprina*) to some sheep, and how and why its larvae parasitise some sheep and not others.

A breakthrough in the odour and bacteria work is proving elusive despite considerable effort. Using gas chromatography technology the number of likely odour causing chemicals compounds are being identified. Then an electro-antennogram that measures the gravid fly's response to each compound is used to narrow down the likely compounds that attract the flies.

The goal is to be able to select and breed sheep that don't emit the attractant odours along with the known key breech traits, and therefore reduce their exposure to and risk of breech strike. **B**

MORE INFORMATION

The presentations of Johan Greeff of DAFWA and Jen Smith of CSIRO are available on the AWI website at www.wool.com/flystrikeRnDupdate

PAIN RELIEF PRODUCT UPDATE

There has been large scale adoption of post-operative pain relief (**Tri-Solfen**) during the past ten years. New pre-operative products **Buccalgescic**[®] and **Metacam**[®] 20 have been released in 2016.

TRI-SOLFEN

Tri-Solfen, from Bayer, is a local anaesthetic and antiseptic gel spray for use on lambs to provide pain relief following mulesing.

Sales commenced in the 2006 season, with a large uptake so that three quarters of Merinos that are mulesed are now being treated.

An application is currently with the APVMA for registration for sheep castration and tail docking; approval is expected later this year.

Tri Solfen was rescheduled from an S4 (veterinary only) drug to an S5 drug in 2014, meaning it is now sold 'over the counter' and is available at rural merchandise outlets.

Its active ingredients are Lignocaine, Bupivacaine, Adrenaline Cetrimide. Its meat withholding period and ESI are 90 days but there is work being done to reduce this.

BUCCALGESIC[®]

Meloxicam product Buccalgescic[®], from Troy Laboratories, was released in August 2016 for castration and tail docking. APVMA registration for mulesing is likely in coming months. The NSAID exerts anti-inflammatory, analgesic and antipyretic effects.

Developed in collaboration with AWI and MLA, the product is a prescription only (S4) drug that is delivered without a needle, thereby reducing potential OH&S issues for operators and eliminating any potential skin and muscle damage to the sheep.

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

METACAM[®] 20

Metacam[®] 20, from Boehringer Ingelheim, is another Meloxicam product for the alleviation of pain and inflammation in sheep, cattle, pigs and horses.

It was approved by the APVMA in April 2016.

A single dose of Metacam[®] 20 can be used in sheep and lambs 14 days of age or older.

Available now through veterinarians, it is prescription only (S4) with an active ingredient of 20 mg/mL of Meloxicam.

It is approved for administration only by subcutaneous injection high on the neck behind the ear.

Its meat withholding period and ESI is 11 days.

B

MORE INFORMATION

www.wool.com/flystrikeRnDupdate

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*when applied within 24 hours of shearing.
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EARLY SEASON FLYSTRIKE PREVENTION

Early season flystrike prevention is an underutilised strategy that can **decrease both the incidence and the overall cost of flystrike, as well as improve sheep welfare**. It may also use less chemical throughout a fly season.

The early season flystrike prevention strategy involves applying a long-acting flystrike preventative to the whole flock before any fly activity in spring, followed where possible, with shearing or crutching when the chemical protection period is ending.

This prevents a fly population from building up after a winter dormancy, so that strike is ultimately prevented later in the season by a lack of flies, rather than by making sheep less susceptible or applying another chemical treatment.

WHEN IS IT WARRANTED AND SUCCESSFUL?

1. This strategy is only warranted on flocks in high rainfall areas where producers already need to treat most mobs or the entire flock for flystrike in most years. If this strategy is not suitable for you, other methods for choosing the right treatment time can be found on the FlyBoss website.
2. Winter daily maximum air temperatures must drop below 16°C for most days in an 8-week period to provide a complete break

in the fly season. In these circumstances, no adult flies are present during winter, but the parasite survives to the following spring by overwintering as 'arrested' larvae in the soil.

3. Proximity to neighbouring properties where sheep could be/have been flystruck could compromise effectiveness of the strategy. While *Lucilia cuprina* can travel up to 10km or more, flies coming from within a few kilometres pose the most threat.
4. All sheep on the property must be treated. This may preclude the strategy from properties where some sheep, such as lambing ewes, cannot be mustered and treated when required. 'Covert' strikes (ones that cannot be detected easily on general inspection) in untreated sheep are not uncommon, and they are an important ongoing source of maggots that build up the fly numbers through a season.
5. The method may not be cost-effective if shearing or crutching is carried out in the first 3 months of the fly season because any protective chemical will be

removed and a new protective treatment must be applied immediately after shearing or crutching.

WHAT DOES IT INVOLVE?

Early season flystrike prevention involves application of a flystrike preventative chemical to all sheep before any flies have emerged after winter, to prevent any successful breeding of flies from spring to mid-summer. Treatment must be applied to both the body and the breech.

The treatment, which should contain either dicyclanil, cyromazine or ivermectin, is generally applied in August to October, before flies emerge on that property. Fly-trapping or previous experience can be used to plan when treatment should be applied. If the FlyBoss Optimise Treatment tool is used, then treatment must be applied several weeks before the tool suggests that any flystrike is expected.

If shearing is typically done during summer, if possible, time it to occur just before the residual chemical runs out, to extend the period when strike cannot occur; shorn sheep

Table 1: Maximum protection periods for recommended chemical actives

Chemical active	Application method	Maximum protection period against flystrike*	Wool Handling Interval	Withholding Period (meat) WHP	Export Slaughter Interval ESI
Cyromazine 60g/l	Spray on	77 days (11 weeks)	60 days	7 days	28 days
Cyromazine 500g/l	Jet or dip	98 days (14 weeks)	60 days	7 days	21 days
Dicyclanil 50g/l	Spray on	336 days (24 weeks)	90 days	28 days	120 days
Dicyclanil 12.5g/l	Spray on	77 days (11 weeks)	30 days	7 days	21 days
Ivermectin 16g/l	Jet or dip	84 days (12 weeks)	42 days	7 days	7 days

*Actual length of protection on your property may be shorter and could be influenced by how well you apply the chemical, wool length at application, rainfall amount and intensity during the protection period, and the amount of urine stain, dag and fleece rot where the chemical is applied.

SEASON PREVENTION

are rarely struck in the first 6–8 weeks after shearing. Alternatively, crutching at this time (particularly if breech strike or dags are the major problem) provides longer protection.

Use the FlyBoss Products tool (www.flybosstools.org.au) to search for brands of these long wool flystrike preventative treatments.

Choose the chemical that will best match the time of protection required from the treatment time until shearing/crutching, or if shearing/crutching does not occur at the end of the chemical protection period, ideally choose the longest residual treatment, but adhere to the withholding periods. See Table 1 opposite for chemical protection periods.

If shearing is typically done before the start of the fly season, then preventative treatment should still be used before any flies are likely to be active. To optimise the length of protection achieved from the chemical (as they have a shorter protection period when applied to shorter wool), apply the chemical as late as possible after shearing, but it must be before there is any possible fly activity.

By preventing successful breeding of any flies for about 3 months after the end of overwintering, the population does not build up rapidly. Later in the season, when the sheep are more susceptible and no chemical protection is in place, there may not be enough flies to cause flystrike.

WHAT ISSUES MUST BE CONSIDERED WITH THIS STRATEGY?

Treatments must be thorough and no sheep should be missed, as an occasional unprotected sheep being struck may provide enough new flies for this strategy to fail.

Treatment times must take into account the relevant withholding periods, in particular, the Wool Rehandling Interval, if shearing is to occur near the end of the protection period.

From about 6 weeks post-shearing, sheep will start to become more susceptible to flystrike, but with a very low population of flies the risk of strike is reduced. Nevertheless, monitoring for fly activity later in the season is still essential. In particular, mobs nearer to neighbouring sheep properties may be exposed to a higher fly population, as flies can travel a few kilometres.

NOTE: Monitoring for fly activity later in the season is still essential.

The risk of late-season strike will be lowest where the protection period achieved from chemical (and shearing) has been longest and in locations with the shortest fly seasons because this will limit the time when the fly population can build up after protection runs out.

As with any application of flystrike preventative chemical, there is the potential

for flies to develop resistance to the chemical used. The risk may be higher than with typical treatment strategies because the blowfly population will be heavily suppressed and larvae that do survive the treatment will not be 'diluted' among a larger population of flies.

Conversely, the intentional shearing and removal of the chemical product just as it is starting to lose effect means that flies with some resistance genes are not exposed to a low-level tail of product to which they might have survived.

It is very important to kill any fly eggs and larvae if struck sheep are found, as these may be resistant to the chemical. Shear the affected area and collect all maggots and struck wool into a plastic bag and leave it in the sun all day.

Further information on treatment times, treatments and non-chemical flystrike prevention can be found on FlyBoss. B

flyboss

MORE INFORMATION

FlyBoss provides sheep producers with management tools and the latest information on flystrike. FlyBoss is available at www.flyboss.com.au

PARABOSS: BEST PRACTICE ADVICE FOR MANAGING SHEEP PARASITES

ParaBoss is a suite of three products – LiceBoss, WormBoss and FlyBoss – developed to help sheep producers in the management of lice, worms and blowflies.

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

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

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

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

ParaBoss is funded by AWI and MLA and coordinated by the University of New England with industry oversight. B



MORE INFORMATION
www.paraboss.com.au

POPULAR BEST PRACTICE PROGRAM EXPANDS



The **Making More From Sheep** program, which has helped woolgrowers across Australia **increase the productivity and profitability** of their enterprises, now includes a new module that focuses specifically on **production in the pastoral zone**.

An assessment of the Making More From Sheep (MMFS) program shows the program has helped participating woolgrowers achieve more profitable and sustainable sheep production.

The program provides woolgrowers and sheepmeat producers with a best practice package of information and management tools, supported by a range of events and workshops.

This popular and practical program continues to evolve, demonstrated by the recent release of a module especially for sheep producers in Australia's pastoral zones.

PROGRAM PROVIDES \$ BENEFITS

Sheep and wool producers who have participated in MMFS events have increased their average annual net income by almost \$12,000 (or \$10 per hectare), according to an assessment of the impact of the whole program.

The assessment found that more than three quarters (76%) of participants have made changes to their business, with 66% saying the changes had immediate benefits. The three top benefits reported were increased production (76%), feeling more in control and less stressed (69%) and decreased losses (56%).

In quantifying the financial benefits of practice change on case study farms, the review found wool enterprises recorded average gross margin increases of \$13 per hectare (6%), resulting in a 24% increase in average profit per kilogram of clean wool produced (\$0.37).

Across Australia, 11,057 sheep producers have participated in MMFS awareness events and 5,634 in MMFS knowledge, skills and confidence events.

NEW MODULE FOR PASTORAL ZONE PRODUCERS

The new module in the program – Efficient Pastoral Production – is the twelfth module in the program and was officially launched at Broken Hill's AgFair in May.

Through this new module, pastoral sheep producers can find principles and procedures on the key issues that impact on pastoral sheep business profitability – from how to match grazing pressure with feed supply, to how to control wild dogs, foxes and pigs.

AWI Manager, Woolgrower Extension and Adoption, Emily King, said the new module contains seven procedures and each includes 'must-do' activities, tools to assist in managing the issues identified in the module, and signposts which direct producers to further information and assistance.

"The material was devised by a team of technical experts and sheep producers regarded as industry leaders," Emily said. "The team identified the critical procedures for each component of a sheep business and the tools needed to start making changes to enterprise practices.

"The manual was road tested by sheep producers from all pastoral areas of Australia, as well as public and private service providers who operate businesses in those areas."

Anyone interested in delivering or attending an event aligned to the pastoral module should contact the MMFS coordinator in their state (the coordinators' details are listed on the MMFS website).

MMFS is a joint initiative of AWI and MLA. **B**

MORE INFORMATION
www.makingmorefromsheep.com.au

MAKING MORE FROM SHEEP MODULES

These 12 modules in the program are available to view or download (free) from the MMFS website www.makingmorefromsheep.com.au. Also available on the website is a Quick Quiz to help producers start identifying areas of their enterprise needing attention, as well as upcoming events being run by the program.

Business based modules:

1. Plan for Success
2. Market Focused Wool Production
3. Market Focused Lamb and Sheepmeat Production
4. Capable and Confident Producers

Resource & pasture based modules:

5. Protect Your Farm's Natural Assets
6. Healthy Soils
7. Grow More Pasture
8. Turn Pasture into Product

Sheep technology based modules:

9. Gain from Genetics
10. Wean More Lambs
11. Healthy and Contented Sheep

Other/new modules:

12. Efficient Pastoral Production



The new 62-page **Efficient Pastoral Production** module – available to download (free) from the MMFS website.



Left: Woolgrower Peter McCrabb from 'North Bundy' at Boooroban in NSW speaking at a university in Indonesia in May 2016 during his Australian Rural Leadership Program course's study tour of the country. Right: Peter McCrabb at home at 'North Bundy' with his wife Lisa and three children.

AUSTRALIAN RURAL LEADERSHIP PROGRAM

Now is your chance to join a **network of leaders working collaboratively** to advance the interests of rural industries and communities.

If you have ambitions of being a leader in the rural community, then the Australian Rural Leadership Program (ARLP) can provide you with the experience and skills to help fast track you towards your goal.

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

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

Applications for Course 24 of the ARLP, which runs from August 2017 to October 2018, close at the end of October 2016.

The ARLP course consists of about 50 days face-to-face, delivered in multiple sessions over 15 months. Five of these sessions take place in locations across Australia, including the Kimberley, a state capital city and a regional area, and involvement in Canberra's political scene. One session takes place overseas with an eye-opening visit to one of Australia's closest neighbours, Indonesia. The group size is 30 to 35 leaders. Additional development occurs via flexible learning.

A UNIQUE EXPERIENCE FOR WOOLGROWER PETER MCCRABB

Woolgrower Peter McCrabb, who with his wife Lisa runs a large self-replacing Merino flock at 'North Bundy' at Boooroban in

the western Riverina district of NSW, will this month complete his AWI-sponsored participation in Course 22 of the ARLP, following the course's final session in Perth.

Peter encourages people in the wool industry to apply for the course, saying it condenses into months what community leaders would normally take years acquiring.

"While the program is a large commitment for participants and their families, it fast-tracks a wide range of training into a short time frame. It provides a unique experience that is hard to find outside the program," Peter says.

"The people on my course come from a wide variety of rural-related backgrounds, such as indigenous Australians, public servants, community-based workers, and staff from government departments and research and development organisations. Out of close to 30 on the course, there are probably only about three or four full-time farmers, so I have often been asked to represent the views of farmers during discussions, which I think is very important, and it has also helped improve my confidence in public speaking."

Peter says all the sessions have been valuable, with the media relations session particularly interesting.

"But my favourites were the two weeks in Kimberley at the start of the course, where we learnt about relating to others in an unfamiliar environment, and the two weeks in June where we travelled to and studied leadership in Indonesia."

The latter trip included exchanges with Indonesian leaders in fields as diverse as feedlot operations; health, social and community service providers; a coffee

farming cooperative and an agriculturally-focused boarding school. The course also visited the Australian Embassy in Jakarta for an informative briefing day regarding Indonesia's political goals and market challenges.

"I gave presentations to two universities in Indonesia, and even met with Indonesia's Vice Chairman of the House of Representatives, Fadli Zon, in Jakarta. So the course has provided me with valuable experiences that I would have never have had otherwise."

PREVIOUS AWI-SPONSORED PARTICIPANTS

Previous AWI-sponsored participants of the ARLP include: woolgrower Ben Watts of Molong, NSW, who is currently the project manager of the National Merino Challenge and spoke at this year's IWTO Congress as an advocate of technology for woolgrowers; Chris Mirams, who is currently a board member of Meat & Livestock Australia and Holbrook Landcare Network, and a partner in Chris Mirams & Associates; and woolgrower Ben Swain from Gunnedah, NSW, who is the Executive Officer of the Australian Merino Sire Evaluation Association (see page 46).

Bert Matthews, who with his wife Liz runs 'Bedarbidgal' at Hay in NSW, and neighbour Carol Huggins who runs the nearby 'Woodpark' with her husband Stephen, last month began the latest course, Course 23, thanks to sponsorship from AWI. **E**

MORE INFORMATION
www.rural-leaders.com.au
www.wool.com/ARLP



AWI's Stuart Hodgson, with Hay Incorporated Chairman Chris Bowman (right), demonstrating Merino assessment and classing to students. PHOTO: Liz Teate.

JACKAROO TRAINING EXPANDS AT HAY

A rural training program supported by AWI in the Hay district of NSW continues to help young people gain agricultural skills, education and experience.

Following the successful inaugural running of the Hay Rural Education Program in 2015, 15 more young people were this year given the opportunity to learn the practical agricultural skills needed to help them get jobs on rural properties.

The hands-on educational course is run in the western Riverina district of NSW with support from AWI.

Hay Incorporated launched the Hay Rural Education Program in 2013 in response to concerns about the decline in the traditional jackaroo system and the associated lack of stock and other essential rural skills being handed down to the younger generation.

Hay Incorporated Chairman Chris Bowman said the program's objective is to provide young people with a diverse range of skills to make them more employable.

"The falling number of jackaroos in recent times when a lot of properties were sold, in conjunction with the increased use of contract labour, resulted in a lack of young people with the proper training to get a job," Mr Bowman said.

"This program, with the help of properties around Hay, aims to help reverse this trend. We have had wonderful support from farmers and volunteers in the district offering practical and in-kind support like yards, stock and quarters; plus generous financial contributions from several individuals and organisations including AWI, TA Field, Tocal College and the FRRR ABC Heywire Youth Innovation Grant."

The program focuses on wool and livestock production (both sheep and cattle) with the key aspects of production delivered in a practical setting in partnership with woolgrowers throughout the Hay district. It is delivered by trainers who have many years of experience on extensive rural properties.

This year's program was a three-week course, in three blocks of five days' training spread over a five-month period, covering a range of topics based around the production calendar for sheep, wool production and cattle.

The program was enhanced this year to also include a three-month farm placement with seven of the trainees matched with local landholders to suit their labour needs.

The first week of training was in February and covered work health and safety, first aid, livestock biosecurity and welfare, sheep handling at Michael Field's 'Wyvern' property at Carrathool, and working dog training at Shear Outback with Ed McFarland and Geoff McDougal.

The second block of training, in March, included small engine and motor bike maintenance with Les Lewis of Les' Mobile Repairs, on-farm stock water repairs and maintenance by Roly Desailly and Richard Cannon at 'Rosevale' Hay. The final three days were spent learning wool harvesting and wool shed management at Paraway Pastoral's 'Steam Plains' station under the guidance of AWI trainers Brian Sullivan and Mike Pora.

In June, training included fence construction and maintenance with Sandy Symons and Waratah Fencing representatives, sheep (and lamb) handling and lamb procedures at the Rutledge family's 'Yeadon' property, prime lamb assessment and nutrition with Geoff Duddy at the Hay Field Station, and Merino assessment and classing with Chris Bowman at 'Burrabogie'.

The final week of training concluded at the Hay Sheep Show on 18 June where trainees learnt about sheep judging and then competed in the Junior Judging Competition. AWI's Stuart Hodgson also assisted at several of the training days.

The 15 participants, including four girls – from Hay and throughout NSW, Victoria, Tasmania and South Australia – completed the course and were presented with their graduation certificates at the Hay Sheep Show by AWI CEO Stuart McCullough.

"Our funding in programs like this aims to help improve the engagement of young people interested in the wool industry, thereby developing and retaining the skills the wool industry needs to be innovative in response to new challenges," Mr McCullough said.

The program will be run again next year, with continued funding from AWI. People interested in applying to join the program should contact the program coordinator Sandra Ireson on 0439 938 119 or info@hayinc.com.au

NEXT GENERATION ON HORIZON

Sixth-generation farmer **Katherine Bain** of Stockyard Hill in the western districts of Victoria is the **2016 recipient of a Horizon Scholarship sponsored by AWI** while she studies agribusiness at Marcus Oldham College.

With a goal to work in agricultural trade and marketing, 21-year-old agribusiness student Katherine Bain is on the right path thanks to a 2016 Horizon Scholarship, supported by AWI.

The Horizon Scholarship is an initiative of the Rural Industries R&D Corporation and aims to support the next generation of agricultural leaders.

Katherine is studying at Marcus Oldham College and sees herself in a role developing networks and markets that attract new business for Australian farmers.

Hailing from a family sheep farm 40km west of Ballarat, her background provides a perfect basis for this role. The Bains have been on the property since 1861, and Katherine's parents David and Deb Bain currently run a flock of about 3,500 Merinos plus 4,500 crossbred sheep. The Merinos cut an average 18.5-micron fleece weighing slightly less than 5kg.

"I've been involved in agriculture my entire life in many different ways, mainly helping on the farm but also being heavily involved in the local show at Beaufort," Katherine said.

Under the scholarship, AWI is supporting Katherine throughout the course of her studies by providing her with a financial bursary and professional support in the form of mentoring, professional development workshops and industry placement.



Katherine Bain, who was raised on the family's sheep farm 40km west of Ballarat is the 2016 recipient of a Horizon Scholarship supported by AWI. PHOTO: Andrew Miller, Stock & Land

"The real value of the Horizon Scholarship lies in gaining industry experience through work placements and networking," she said. "I'm really interested in using that opportunity to follow the wool industry past the farm gate – being from a sheep farm it's what I've grown up with and what I really love in agriculture."

The Horizon Scholars also travel to Canberra and other regional centres as a group for development meetings, which Katherine sees a lot of value in.

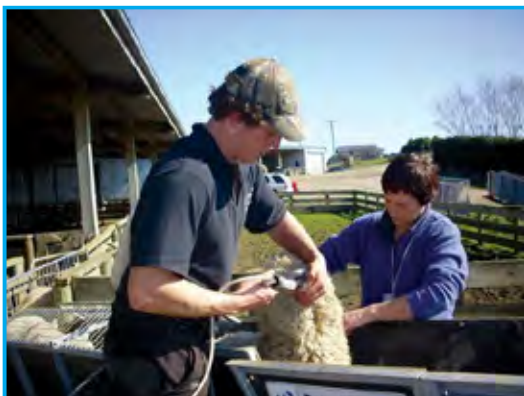
"We learn about leadership and agriculture as an industry in Australia, and meeting the nine other 2016 Horizon scholars means we can bounce ideas off each other through the program. The Canberra meetings also feed in nicely to my interest in the trade and marketing sector of agriculture, particularly in promoting Australian products domestically and overseas."

MORE INFORMATION
Applications for 2017

Horizon Scholarships open on 1 November. See www.rirdc.gov.au

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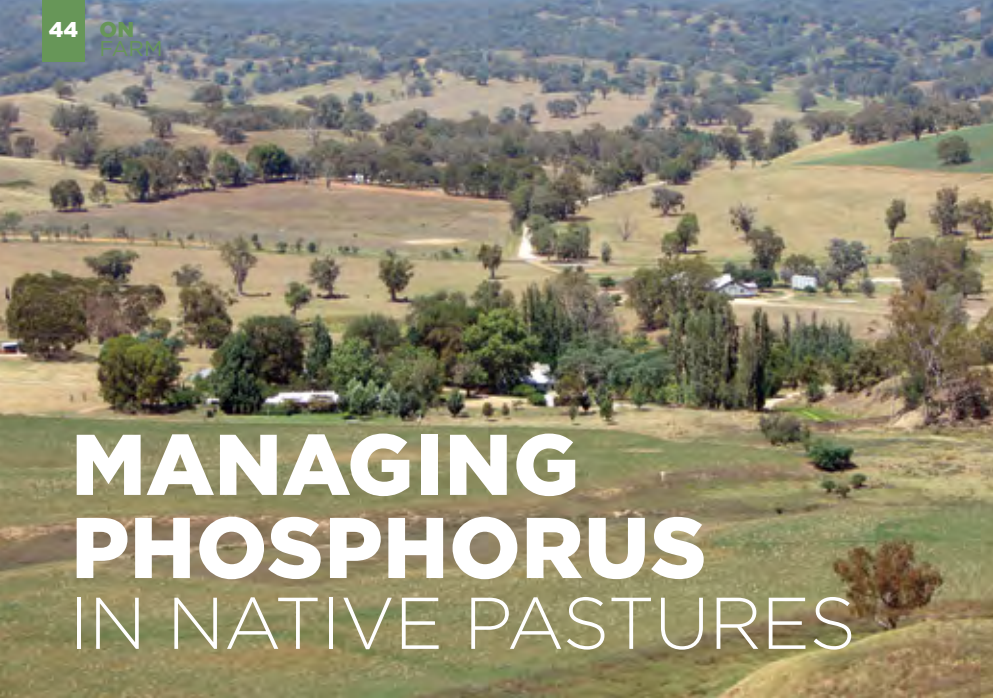
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MANAGING PHOSPHORUS IN NATIVE PASTURES

Native pasture species dominate the wooded hills in the background, while sown species dominate paddocks in the foreground.

Research undertaken by Agriculture Victoria and supported by AWI has demonstrated that where there is a sufficient density of high-quality native grasses in native pastures, fertility can be increased to moderate levels by the application of phosphorus (P), without the expense of pasture sowing.

KEY POINTS

- Applied P boosts the legume component of native pastures, but too much leads to annual grasses and weeds.
- Grazing management is essential if fertilisers are applied to native pastures. Rotational grazing is critical to ensure maintenance of the perennial native grass component of the pasture.
- Native pasture species have differing responses to P. Find out what species are on your farm.
- The more productive areas of the farm such as valleys with deep soils should be the first priority in applying fertilisers.

Native grasses provide native pastures with stability and ground cover, and respond to summer rainfall – while volunteer annual legumes and grasses in native pastures provide much of the winter and spring feed. Both components are essential for the long-term sustainability of the pasture.

Research undertaken by Drs Malcolm McCaskill and Meredith Mitchell has demonstrated that substantial increases in carrying capacity can be achieved by addressing P and sulphur (S) deficiencies in native pastures, and that in many cases economic responses can be achieved without a need for pasture sowing.

Dr McCaskill from Agriculture Victoria says applications of P stimulate the annual legume component of native pastures, increasing the nutritive value of the feed and animal growth rates. Nitrogen (N) fixed by the legume stimulates the native perennial

grass, but also the volunteer annual grasses and weeds.

“When fertiliser is applied to native pastures often an explosion in production of both annual grasses and legumes is seen, particularly in the spring,” Dr Mitchell said. “For species such as wallaby grass and redgrass this can be quite detrimental if there is insufficient grazing pressure, especially in the spring, because this allows annuals to shade and smother the native perennials.

“In many native pastures, the productivity of the system is driven by the annual components. These annual species are generally more responsive to fertiliser applications than are the native perennial grasses, but not always. Responsiveness to fertiliser applications depends upon the dominant native grass species that is present.”

Knowing the species in your paddock provides an indicative guide to how responsive they would be to the increased P, and the additional grazing pressure (see section below) required to utilise the additional feed.

Onion grass rather than native grasses dominate many pastures of low fertility in Victoria. The onion grass first needs to be controlled by herbicide before a worthwhile response to fertiliser can be expected.

GRAZING MANAGEMENT

If fertiliser is applied, which in turn grows more grass, the stocking rate should also be increased – there should be sufficient livestock to utilise the extra feed.

“The volunteer annual grasses and weeds tend to be more competitive as P and N fertility increases, leading to a decline in the native perennial grass component. This leads to an

uneven feed supply, with an excess in the spring and then poor growth over summer leading to bare ground and erosion risks.”

To avoid this, it is recommended that legumes should be at most 20 per cent of pasture on offer in spring. Grazing and lower fertiliser rates (<10 kg P/ha/year) can be used to hold the legume content to this level. At higher legume contents, a sown grass is required to provide stability.

“Deferral of grazing over summer favours the native grass, because this is the time of year that they produce seed and build up root reserves. Paddocks can then be grazed in late summer or early autumn.

“Hard grazing in summer and autumn favours annual legumes by providing bare spaces for them to colonise at the autumn break, but there are erosion risks of bare ground particularly on steep areas. Therefore, it is critical to maintain ground cover targets on slopes and shallower soils.”

DEEP SOILS ARE NEEDED

Soils that are deeper and therefore have a greater water holding capacity show a stronger economic response to fertiliser application, Dr Malcolm McCaskill adds.

“Some areas of native pasture should not be fertilised, such as rocky soils, steep hills, and westerly aspects. On these areas, responses to increased fertility are poor, and it is more important to preserve the native perennial grass cover to control erosion.” **B**

MORE INFORMATION

A new ‘Managing phosphorus in native pastures’ fact sheet that includes a guide to the differing levels of responsiveness to P of native pasture and common introduced species is available on the AWI website at www.wool.com/publications



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INDEPENDENT CLASSING AND MERINO SIRE EVALUATION COMBINE TO DELIVER MERINO

The **Merino Sire Evaluation program** operates at nine separate sites across Australia and **compares the breeding performance of sires from different flocks**. Their progeny are assessed for a large number of measured and visual performance traits, which **helps woolgrowers select sires across a large range of breeding objectives**.



New England Sire Evaluation Field Day.



Visual classing at the Elders Balmoral site.

The very first Merino Sire Evaluation programs were established in 1987 by the NSW Stud Merino Breeders Association in partnership with the University of Sydney and NSW Agriculture. They were initially concentrated in NSW: Hay, Deniliquin, Dubbo and Walcha.

Almost 30 years later, Merino Sire Evaluation in Australia is stronger than ever, with nine sites operating in a wide range of environments, all comparing sires from different flocks by extensively assessing their progeny for both visual and objective performance.

“Merino Sire Evaluation is truly unique in that it offers a complete package of information,” says ram breeder and chairman of the Australian Merino Sire Evaluation Association (AMSEA), Tom Silcock.

“Each site involves recognised sheep classers providing visual assessments for a wide range of conformation, wool quantity and breech traits, as well as classing each sheep into a grade.

“Plus, we collect an extensive list of objective measurements for wool, carcase and parasite resistance. It’s a one stop shop for a breeder to make an informed decision about whether to use a sire or not.”

Visual and objective information collected at each of the independently managed sire evaluation sites through Australia, is reported in regularly updated Site Reports. A standard Site Report includes results for 11 measured traits and 20 visual traits, many assessed at multiple ages and reported separately.

Site Reports and other sire evaluation information and results are available on the Merino Superior Sires website, www.merinosuperiorsires.com.au. These freely available reports are clearly popular amongst ram breeders and woolgrowers with up to 2,500 individual reports being downloaded on a monthly basis.

“Being able to independently evaluate sires in a particular environment gives breeders confidence to use those genetics themselves”, says Tom. “And Merino Sire Evaluation

continues to attract new entrants every year, which further increases the appeal to a wider audience.”

Whilst Merino Sire Evaluation in Australia has for many years fulfilled an important role of providing truly independent genetic benchmarking information, Tom believes the key to the success of the program has been its strong breeder involvement.

“In most cases the sites are hosted on commercial wool-growing properties with a committee of breeders and other interested people managing the trial. Breeders are also involved in national governance, in formulating the trial protocols, how the results are reported and in driving ongoing innovation. Their passion and commitment is driven by a need for independent and comprehensive information about potential sires.”

Ben Swain, also a woolgrower, is the Executive Officer of AMSEA, the national association formed by the individual sites coming together in 2003 to oversee the requirements

AND MEASUREMENT NO SIRE EVALUATION



MSS sites are located across the majority of wool growing regions in Australia.



for running sites, the analysis of the data collected and the reporting of results.

As well as being reported in Site Reports, all data collected at sites is combined and reported in Merino Superior Sires. "To achieve the combined analysis, each site uses link sires," Ben says. "Link sires are rams that have been successfully used at another site, or in another year. By using link sires AMSEA is able to compare the results of all sires entered, regardless of where or when."

Linkage between the sites offers industry benefits well beyond Merino Sire Evaluation, with the combined database playing a critical role in the success of the national genetic analysis, MERINOSELECT. Without Merino Sire Evaluation many of the flocks in MERINOSELECT would not be linked, or linked for only some traits.

Merino Sire Evaluation continues to offer a platform and focus for research and development. The Visual Sheep Scores booklet containing the national standards for the visual scoring of a range of traits

was conceived and developed by AMSEA. And, in the past 18 months AMSEA has formed a partnership with AWI to deliver the Merino Lifetime Productivity project. The project, outlined in the June 2016 edition *Beyond the Bale*, will operate for the next nine years and see the ewe progeny from 135 industry sires evaluated throughout life for a wide range of commercially important visual and objective traits.

The operation of individual Merino Sire Evaluation sites is funded by commercial entry fees paid by ram breeders. Most sites are also supported by generous in-kind support from dedicated site committees, service providers, local state departments of agriculture and sponsors.

AWI supports Merino Sire Evaluation through the funding of link sires, support for the Executive Officer's role, the analysis of the results and the administration of AMSEA. **B**

LIST OF TRAITS ASSESSED	
Measured traits	Visual traits
Greasy Fleece Weight	Fleece Rot
Clean Fleece Weight	Wool Colour
Fibre Diameter	Wool Character
Body Weight	Dust Penetration
Fibre Diameter Coefficient of Variation	Staple Weathering
Fibre Curvature	Staple Structure
Staple Length	Fibre Pigmentation
Staple Strength	Non-Fibre Pigmentation
Eye Muscle Depth	Recessive Black
Fat Depth	Face Cover
Worm Egg Count	Feet/Legs
	Body Wrinkle
	Jaw
	Back/Shoulder
	Breech Cover
	Crutch Cover
	Breech Wrinkle
	Dag
	Urine
	Visual Classifier's Grade

MORE INFORMATION
For more information on Merino Sire Evaluation visit www.merinosuperiorsires.com.au or contact Ben Swain on 0427 100 542 or ben_swain@bigpond.com

SHEARER & WOOL HANDLER TRAINING

AWI funds training for shearers and wool handlers

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



AWI funding helps improve the skill levels of shearers and wool handlers and therefore the quality of woolgrowers' clip.

Adequate numbers of highly skilled professional staff to harvest and handle a high quality Australian wool clip in a timely manner are key to the profitability of the Australian wool industry. AWI therefore funds hands-on practical training for shearers and wool handlers in the shed, aimed particularly at increasing their productivity, skills development and professionalism.

"The training for harvesting staff is provided by Registered Training Organisations and also through AWI's Independent Coaching Program," AWI's shearing industry development coordinator Jim Murray says.

"Training covers a wide range of experience, from learner to professional shearers and novice to professional wool handlers. It is also offered as short term, intensive workshops across a range of skill levels.

"The Independent Coaching Program, which was introduced three years ago, is now entrenched and proving very successful. It provides AWI with an avenue to contract

directly with experienced trainers, reducing administrative costs; it is proving to be a cost effective way of delivery."

TRAINING NUMBERS REMAIN HIGH

AWI investment in the promotion and recruitment of shearers and wool handlers results in significant numbers trained at all levels.

In 2015/16, 1,458 days training were delivered seeing 4,266 individuals through AWI-funded programs across Australia (see table below), which is a slight increase from 2014/15.

The delivery was a combination of in-shed training, novice schools, high school groups and workshops. These workshops serve an important role in providing a range of training services to the wool industry – through improver to advanced and professional workshops for the continued development of wool harvesting professionals.

High school students in WA in the Agricultural School system were provided

with training in the wool harvesting industry by AWI-funded coaches.

Exchange programs are undertaken with New Zealand for young potential trainers, and both interstate and with New Zealand for senior trainers.

HARVESTING VIDEOS FEATURE TOP TIPS

AWI training resources are in constant demand which has resulted in all 200 of AWI's shearing and wool handling video tutorials being now available on USB (call the AWI Helpline on 1800 070 099) and also on YouTube at www.youtube.com/AWIWoolProduction.

The short online tutorials 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 tutorials include advice from experienced shearers, wool handlers and wool classers such as Shannon Warnest, Dwayne Black and Rachel Hutchinson.

"People working in shearing sheds have traditionally learnt their skills 'on the job' by being shown; these videos use the same approach," Jim says. "Available on USB, they are a great way of getting information to people working in the industry as the videos are suitable to be watched in the shearing shed on laptop computers.

"Good training is essential for new and existing people working in sheds. These videos complement the free in-shed training for novice, improver and professional shearers and wool handlers that AWI continues to provide."

B

		NSW	WA	VIC	SA	QLD	TAS	2015/16 TOTAL
In-shed shearer coaching	Days:	265	138	251	60	25	45	784
	Number trained:	517	213	487	220	101	62	2,478
In-shed wool handler coaching	Days:	85	40	113	57	25	66	386
	Number trained:	194	70	311	165	58	230	1,028
Novice, high school workshops	Days:	288						
	Number of attendees:	760						

Total training days provided 1,458

Total number coached/trained 4,266

MORE INFORMATION
www.wool.com/shearertaining

NATIONAL CHAMPIONSHIPS NEXT MONTH

The **2016 National Shearing and Wool Handling Championships** will be held **6-8 October in Warialda, NSW**, along with Open competitions and a Trans-Tasman Test.

It's been seven years since the town of Warialda in the North West Slopes region of NSW staged the National Shearing and Wool Handling Championships, but recent improvements to the Warialda Showground make it a perfect venue to host the Championships again.

Upwards of 120 shearers and wool handlers from across Australia and New Zealand will descend on Warialda from 6-8 October for the hotly contested 2016 National Championships and Open competitions.

The event will also include a Trans-Tasman Test pitting the best shearers from Australia and New Zealand against each other. The Australians will be out to win back the Test they lost at Masterton, New Zealand in March. Overall Australia leads New Zealand in the Trans-Tasman Tests 30-29.

The National Championships is an annual event that rotates to various locations around the country, and is run by the Sports Shear Australia Association in conjunction with coordinating committees in each host town.

AWI is providing support for the event this year – plus many local, regional and state shearing and woolhandling competitions across the country – with the main aims of promoting excellence within the shearing industry, and to encourage young people to join the industry.

"AWI is keen to raise the profile and status of the shearing industry by enabling participation in well conducted shearing and woolhandling competitions," AWI's shearing industry development coordinator Jim Murray said.

"Competitions help encourage better techniques in shearing and woolhandling, which is for the benefit of the woolgrowing industry from which they derive. AWI's support aims to encourage a quality workforce, an interest in wool, and an appreciation of the art and skill of shearers and wool handlers.

"These Championships are nationally and internationally significant and will also serve as selection trials for the Australian

team to contest next year's World Shearing and Wool Handling Championships in Invercargill in February."

MORE INFORMATION
Entry forms for the open competitions are available at www.warialdansw.com.au



Tara Smith and Sarah Moran competing in the Trans-Tasman Test at last year's National Shearing and Wool Handling Championships in Hamilton, Victoria.

WOOLSHED POSTERS IN USE

All 37,000 copies of the March 2016 edition of *Beyond the Bale* contained a **code of conduct woolshed poster** and many are now on active service.



Woolgrower **Todd Burger** (right) and woolclasser **Darren Stawford** are happy with the role the poster plays in setting the standards for the entire shearing team in the woolshed.

In Todd Burger's woolshed near Glenthompson in western Victoria the poster can be clearly seen on his raised board and its presence didn't go un-noticed amongst members of the shearing team.

Woolclasser Darren Strawford, who also grows wool locally, had a good look through the poster said it was fair enough.

"Because I work in plenty of sheds and run my own as well I can see both sides of the issue here and essentially we all have to work together as a team to get the job done as best we can. This poster has nicely highlighted at the top that good communication between contractors, shearing teams and growers is essential, and for me this is the essence of it all."

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.

Todd said the poster was a good starting point to help everyone work together to create a good outcome for everyone in the shed, including the sheep.

"I have a great team here and always have so there are no issues there. We are all professionals but I think it's a great initiative so everyone is on the same page and it's there as a bit of a reference. Shearing can be a stressful time because there is a lot going on and for me it's when I see the fruits of all our work so we all want it to go smoothly and have a happy and safe shearing."

The poster outlines a code of practice in line with relevant state laws regarding animal welfare, workplace health and safety and the prohibition of drug use.

It is a joint initiative between AWI, Shearing Contractors' Association of Australia, the WA Shearing Industry Association, and WoolProducers Australia.

MORE INFORMATION
For your free copy of the shearing shed poster contact the AWI Helpline on **1800 070 099**.

LOOKING TO THE FUTURE



Woolgrower and Campbell Town Show president **David Taylor** on his property near Campbell Town, Tasmania. PHOTO: Nikki Davis Jones / Newspix

While wool-growing has been in the blood of David Taylor's family for generations, his early career saw him donning a suit and tie every day for the finance industry in the city far from the family farm. **Now that he is back home and taking over the reins of the family business, he can clearly see wool's benefit to his own bottom line.**

After studying commerce at the University of Melbourne and working in the audit and corporate finance industries for more than seven years, David Taylor moved back to the family farm 'Kenilworth' near Campbell Town in 2010.

The Taylors run a 1,400ha mixed farming enterprise primarily consisting of a self-replacing Merino flock, Merino stud, dual-purpose flock, poppies and some cereal and seed production.

David's former career has given him a broader than usual perspective on farming, and he is keen to see some more positivity exhibited by the wool industry.

"There is too much unwarranted pessimism associated with the industry," he says. "Perhaps this is a carry-over from the

"The self-replacing wool enterprise has been a pretty good business to be in for the past six years."

David Taylor

previous generation being crippled in the early 1990s which has been hard to move past, but surely after 25 years and the sell-off of the stock pile we can move on and think of wool in a more positive light.

"I believe the current levels of the Australian wool market are very strong and growers should be comfortable with current pricing levels."

The Taylors have been in the wool-growing business for many generations, and while David naturally has a sentimental affection for the fibre, the real reason Merinos are still the focus of the business is due to a very unsentimental reason: they are profitable.

"Indicator prices have been pretty solid since I returned to the farm six years ago. Our wool income has been fairly consistent; it certainly doesn't fluctuate like our income from poppies which can be unreliable.

"I keep saying I don't really care what we produce as long as it is making money, but that's probably a bit of a lie because I can't see myself being a dairy farmer," he laughed.

FOCUS ON THE FARMING

David with his wife Jo and two young children moved from the 'cottage' to the 'main house' at 'Kenilworth' in February last year, with his mother and father "relegated" to the cottage. However, David's father is still very much active on the farm and his mother with the stud sheep.

"We are nearing the end of a long-winded succession planning process (about five years) which will be locked in and signed away at the end of this calendar year. Part of the delay was due to my younger brother, Simon, playing AFL football for a few years at Hawthorn. He wanted the opportunity to experience the 'real working world' for a few years before being in a position to agree to the final plan."

David believes that as long as there is a critical mass of Merino sheep to drive wool production, the wool industry has a positive future.

"In the past five or so years there has been constant media attention on the positive impact of sheep meat prices on grower incomes, which I agree with. However, I believe that there has also been a similar incremental return from the wool aspect of the business.

"I believe each woolgrower should focus on their own production systems and make decisions that are good for their own business, and not worry about stuff they can't control. It is safe to say that if you don't look after your own production system – nobody else will."

"Keep your stocking rates optimal, keep your volume up and the price looks after itself."

David Taylor

At the end of the day, David reckons that most of the drivers in each wool-growing business come back to volume.

"Keep your stocking rates optimal, keep your volume up and the price looks after itself. Optimising your stocking rate helps maximise your livestock revenue and net profit per hectare or net profit per DSE.

"It is just a matter of growing enough autumn feed to get through the winter before you get the spring flush."

CONFIDENCE OF CHINA'S WOOL INDUSTRY

David acknowledges that wool is primarily a volume-driven business at an industry level as well as at a grower level.

"However, I believe we should continue to market wool as a higher quality niche market fibre, by educating Chinese manufacturers and in particular their customers (increasingly American retail businesses) and end consumers about the unique natural benefits of wool."

David's reference to China is not only influenced by the fact that nearly 80 per cent of the Australian wool clip is exported to China, but also due to David having visited China earlier this year as part of an AWI-supported delegation of 14 young Australian woolgrowers.

The woolgrowers had the opportunity to travel to Shanghai and surrounding provinces for a pilot study tour program of Chinese woollen mills.

"I was particularly excited at the opportunity as I had always wanted to see the downstream processing side of wool. Once the wool bale leaves our shed my understanding of the

"The level of investment in China's infrastructure and machinery is huge, which I see as a massive vote of confidence for Australian woolgrowers."

David Taylor

process involved from raw material to final garment had been limited," David said.

The group visited a number of processing facilities including Tianyu Wool that specialises in wool scouring and top making; they then visited Sudwolle to view and learn about the spinning and dyeing process.

Lastly they visited the Sunshine Group which is a vertically integrated business operating right through the processing chain of scouring, top making, spinning, dyeing, weaving and production of final garments for their own labels.

"The scale of the wool processing operations in Shanghai is extraordinary. The level of investment in infrastructure and machinery is huge, which I see as a massive vote of confidence for Australian woolgrowers.

"It goes to show that the Chinese have enough confidence in the industry and the wool fibre itself that we should have the confidence to grow it and supply them with the product that they need and want.

"However, they did say their margins are relatively tight, partially driven by increasing labour costs and environmental regulations. Their businesses rely on production and processing volumes. Margins are dictated by how quickly and efficiently they can process the various stages of products.

"Despite this, they were confident continued investment in technology will allow business to grow."

QUALITY OF AUSTRALIAN WOOL

David says the take home message he got from the trip was that while the Chinese are in the business of buying large wool volumes, they consider Australian Merino wool to be the best quality (compared to for instance crossbred, South African and Argentinian wool).

"However there appears to be a disconnect between what Australian growers' chest beat' about their own quality characteristics of wool and what processors consider to be qualitative factors of wool.

"Barring the big ticket items (such as SL, SS) a grower might talk about CV, handle, whiteness, lustre, uniformity of crimp – but my interpretation is that these words would be received with blank faces from processors, whose version of quality basically means production efficiency.

"In their eyes, quality primarily means Australian Merino, micron, length in the top and staple strength and that is about it. Despite China being the major consumer of Australian wool, they still have a lot to learn about the qualities of our wool, which can only be a good thing."

The delegation also visited the AWI Shanghai office and returned home through Hong Kong and visited the AWI office there.

"The staff there were very accommodating, and they gave us a presentation on AWI product innovations. The versatility of the style, look, handle and feel of the woollen garments was amazing."

CAMPBELL TOWN SHOW'S SHEAR BRILLIANCE

Founded in 1838 by a group of far-sighted and progressive landowners, the Campbell Town Show in Tasmania continues to play a leading role in displaying the best of the Tasmanian agricultural industry.

"While in recent years the Show has diversified to reflect transformations in Tasmania's agricultural sector, an important aspect of the Show is still to showcase positive messages about the sheep and wool industries to farmers and the public alike," Show president David Taylor said.

"Thousands attended this year's two-day event in June that provided displays and competition in a wide and varied program. Sheep exhibitions, wool fashion and shearing were some of the highlights."

AWI was a sponsor of the Show and provided support in several areas, including the shearing and wool handling competition. The competition included a good cross section of novices, intermediates and professionals, with current Australian champion Daniel McIntyre from Glen Innes, NSW, winning the Show's shearing competition.

To help extend the competitors' skills, AWI also held a training workshop prior to the competition, led by Daniel and local wool-handling trainer Mel Morris. Novice and intermediate judges were also trained, to a level at which they can now judge open competitions across Australia.

The iconic fashion parade was again held, showcasing various men's and women's collections (including AWI's runway kit) that highlighted the use of wool in sportswear, casual wear and formal wear. It was the largest and most varied collection that has ever been showcased at the Show.

"Feedback from the exhibitors, trade sites and stall holders at this year's Show has been really positive, which is very rewarding as a lot of work goes into putting on the event, and all credit to the small group of dedicated volunteers and the sponsors that make it happen," David added.



Australian shearing champion **Daniel McIntyre** in action at the Campbell Town Show.
PHOTO: Chris Kidd / Newspix

MORE INFORMATION
www.campbelltownshow.com.au

MARKET INTELL

AVERAGE MONTHLY EMI COMPARISON THE EMI CONTINUES TO PERFORM WELL

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 (May 2016 – July 2016) in Australian dollar terms compared with the past five years April 2011 to April 2016 (circles) and the previous decade April 2001 – March 2011 (squares).

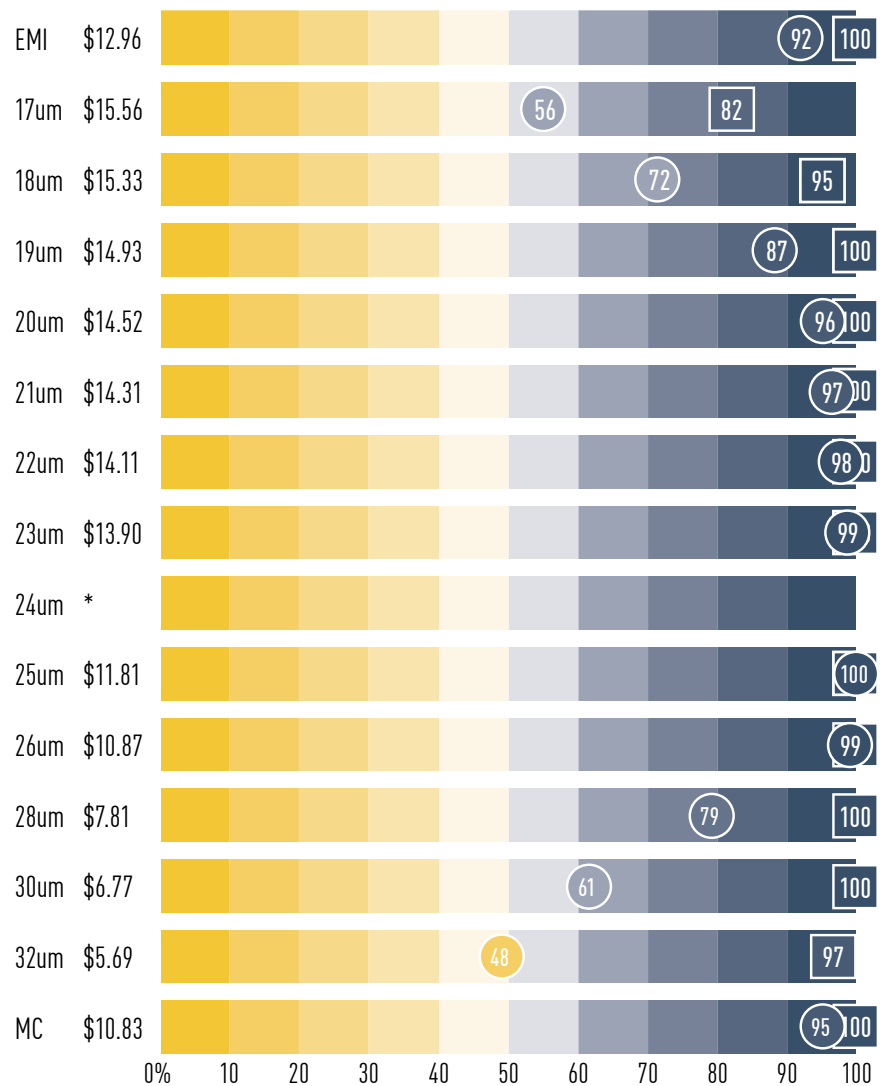
From May 2016 – July 2016, the monthly EMI averaged at \$12.96, tracking at the 92nd percentile against the past five-year monthly EMI. The percentile value (92nd) indicates that the five-year monthly EMI recorded a price lower than \$12.96 for 92 per cent of the time. Or to put it another way, in the past five years the monthly EMI has recorded a price higher than the current \$12.96 (May 2016 – July 2016) for only 8 per cent of the time.

While the EMI is tracking at the 92 percentile over the past five years, it is at the 100th percentile when compared to April 2001 – March 2011. This means the current EMI of \$12.96 (May 2016 – July 2016) is higher than it was at any time during that decade.

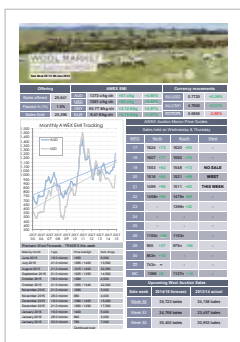
The mid microns and Merino Cardings (MC) have performed particularly well recently. For the past three months (May 2016 – July 2016) Merino Cardings averaged at \$10.83, operating at the 95th percentile for the past five years and the 100th percentile for the first decade of the century.

For the same period, 18 micron averaged at a monthly value of \$15.33 (72nd percentile and 95th percentile respectively), 21 micron averaged at \$14.31 (97th percentile and 100th percentile), and 28 micron averaged at \$7.81 (79th percentile and 100th percentile). **B**

AVERAGE MONTHLY EMI FOR MAY 2016 - JULY 2016 COMPARED WITH
● PAST 5 YEARS APRIL 2011 - APRIL 2016 ■ THE DECADE APRIL 2001 - MARCH 2011



*Insufficient data



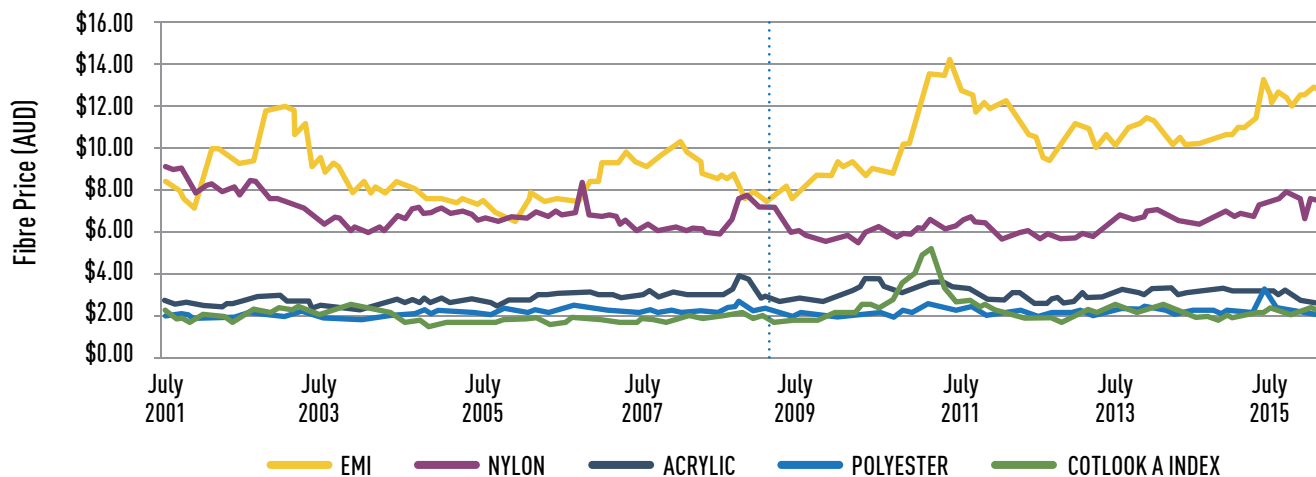
AWI'S BUSINESS INTELLIGENCE

AWI provides weekly market reports and monthly electronic newsletters, which can be subscribed to at www.wool.com/subscribe or by direct download from the AWI website at www.wool.com/marketintelligence

These reports provide weekly commentary on the wool auction market from AWI trade specialists and monthly insights into economic, finance and trade issues affecting global demand for wool, and what this means for the Australian wool industry.

IGIGENCE REPORT

RISE IN PRICE OF WOOL VERSUS OTHER FIBRES



In this article we look at the performance of wool over the past 15 years in comparison with other competitive fibres in the market. Acrylic, Nylon, Polyester and Cotton are important markers against the EMI for wool, as they can be a cheaper source for fabric production, and can impact directly the return for Australian woolgrowers.

The above graph shows the EMI price against the other competitive fibres. During July 2001-2007, generally the EMI gradually slipped in price and the gap between the value of wool against other fibres narrowed.

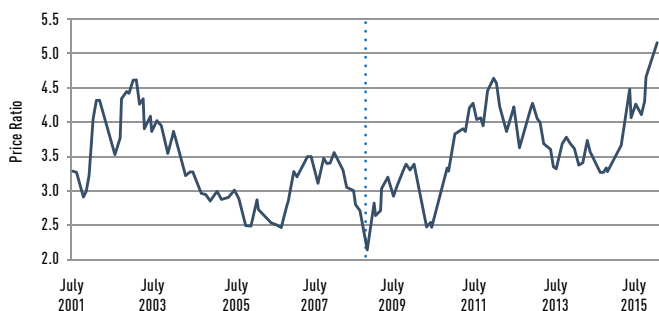
It slipped even to the point where the value of wool at 7.54 \$/kg in October 2006 was worth less than nylon at 8.25 \$/kg in the same month. Essentially, Australian woolgrowers were not seeing the deserved return on investment compared to the cheaper to buy yet even cheaper to produce synthetic fibres and cotton.

To arrest this trend, marketing was reintroduced in 2009 by AWI to re-add value to the EMI, boost the return for growers and reposition wool as a premium natural fibre. Since the 2008/09 season it is evident that

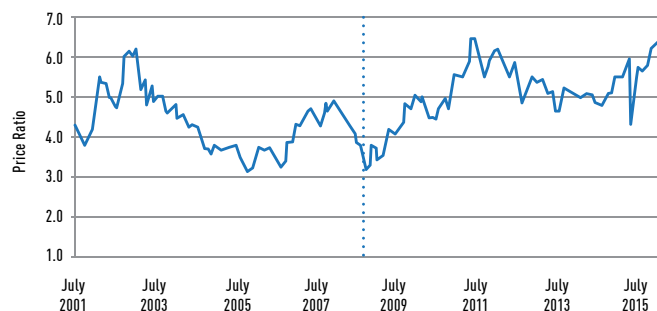
a correction of wool's value against other fibres has occurred. The trend has slowly but surely increased from 2008/09 to 2015/16 with the value of the other fibres remaining low.

Whilst wool is a commodity it will always follow other commodities through price peaks and troughs, however the increasing gap between wool and other fibres since 2008 is proof of the return of consumers' willingness to pay more for a high quality product and ultimately increase the return in the pocket for Australian woolgrowers. **B**

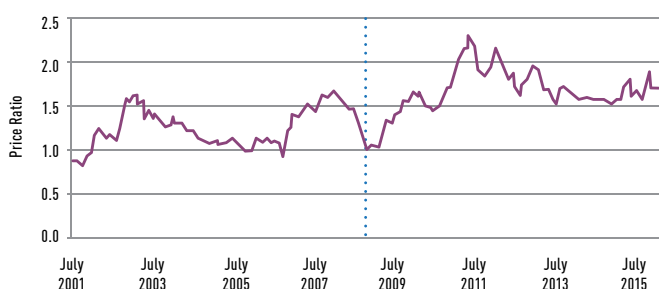
WOOL:ACRYLIC



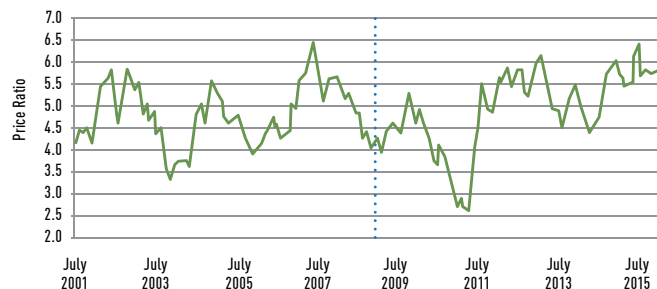
WOOL:POLYESTER



WOOL:NYLON



WOOL:COTTON



ADAPTING TO CHANGING MARKETS



John Roberts, AWI General Manager
– Eastern Hemisphere

Continuing our series of feature articles written for *Beyond the Bale* by industry experts, in this edition **John Roberts, AWI's General Manager for the Eastern Hemisphere** provides his perspective on trends in the region's manufacturing and consumer markets, and the implications for the international offices of AWI's subsidiary, The Woolmark Company.

Shifts in global economic circumstances in the past 20 years have been spectacular. From the wool industry's perspective, the rise of China as an economic powerhouse and new member of the World Trade Organization (WTO) has gradually translated to a quantum shift in global textile processing. Between 1990 and 2010 most of the early stage processing (scouring and topmaking) that existed in countries like Australia, Germany, France, UK and Japan either closed or in most cases relocated to China. Processing stages further up the supply chain including spinning, weaving and knitting have also followed this journey to the middle kingdom and now it seems we need to prepare for the next textile processing hub to emerge.

Most markets that AWI and its subsidiary The Woolmark Company (TWC) operate in have been affected to varying levels by this change and we have had to remain extremely nimble to ensure we resource each global office with the right staff with the best skill sets to address each market's needs and opportunities. The challenge has been to get the right balance between marketing and technical innovation in each individual market.

In the Eastern Hemisphere, our Tokyo office is a good example of how TWC has adapted to the changing needs of the Japanese market. Traditionally a giant in early stage processing of greasy wool, Japan used to buy more than 30% of Australia's raw wool from auction in the 1980s. Today Japan remains a producer of high-end finished garments, however much of the early stage processed product (top, yarn and fabric) is now sourced from lower conversion cost markets including China, Taiwan and more recently Vietnam and Cambodia. Whilst TWC still

provides technical processing and product innovation support in Japan and regard it as high priority, much of our focus and the way we now resource our Tokyo office has shifted towards the highly discerning consumer aspect of the Japanese market in the form of marketing and promotion of wool at a retail level. Given Japan remains one of the largest wearers of wool per head of population this seemed an obvious evolutionary next step.

Our team in India has a more balanced weighting between technical supply chain support and marketing with the latter increasing dramatically in the past five years as we look to engage the rapidly growing middle to high income brackets. In China our resource balance is also quite even between manufacturing and marketing. They take nearly 80% of our raw wool from auction and process it there. Whilst around 50% of that wool then leaves China in processed form for offshore retail markets, the other 50% is consumed within China. On this basis our office in Shanghai has both a highly talented technical support force and a passionate and highly experienced marketing team.

One of the bigger challenges our frontline teams face is the education of markets and breaking down preconceptions about wool. Unlike some of the more traditional wool consuming markets like Italy, UK, Germany, US and Japan that have a long history of wearing and understanding wool, a number of the rapidly growing economies in the Eastern Hemisphere are less familiar with the fibre, its story and its benefits. This finds our teams running educational workshops with manufacturers, fashion brands and their retail staff on the natural benefits of wool including moisture and

odour management, fire resistance and biodegradability. There is also a good deal of time spent 'myth busting' about the uses of wool, explaining that wool doesn't just keep people warm, and promoting the advantages of wearing wool in more tropical and humid climates, as well as its high level offering in next to skin base layers and sportswear. Doing away with the 'itchy scratchy' image is a big focus and the team are making good headway.

The good news is that wool is well positioned right now to align with a growing movement in consumer behavior. 'Lifestyles of Health and Sustainability' or 'LOHAS' is an acronym that you are likely to hear more of in the near future. It refers to a consumer who is looking for a better work-life balance with a focus on personal health, and a healthy planet to pass on to their children. This includes aspects of sports and outdoor as well as natural and sustainable products and practices. Needless to say, wool lends itself very well to this.

AWI's new three-year Strategic Plan recognises this is a key target growth area for wool going forward and our teams are working with an increasing number of high-end sports and retail brands and supply chain manufacturers who are new to wool. This includes traditional cotton and acrylic users who are under increasing pressure from consumers for garments made with functional, natural fibres with a minimal environmental impact. That said, TWC has not turned its back on high-end fashion. In fact fashion in both womenswear and menswear remains a priority for all our staff and we continue to position the wool fibre towards the top of the fashion triangle in both formal and casualwear.

READERS' PHOTOS!

Have you got any interesting photos that you'd like to share with other readers of *Beyond the Bale*?

If so, please email the image and a brief description to the editor of *Beyond the*

Bale Richard Smith at richard.smith@wool.com.

Here are a few photos that we have recently received from readers.

BEN KEENAN

Laurel Keenan of Bridgetown in Western Australia sent in this photo of her son Ben Keenan with shearer trainer Kevin Gellatly and wool handling trainer Amanda Davis.



Benjamin Stewart Keenan was born on 20 January 1984 with Down Syndrome and required major open heart surgery when he was an infant. With Ben's dad being in mining, the family travelled extensively and this has been wonderful for Ben. He loves people and is very social, and has had a very positive impact on people's lives.

Over the years it became very evident that if Ben was interested in doing something he would give it a 100 per cent. This was demonstrated when the family moved to Bridgetown and met up again with Laurel's cousin, shearer trainer Kevin Gellatly. Ben hit it off immediately with Kevin and his partner Amanda who took Ben out for the occasional half-day in the shearing shed. Ben blew Kevin away with his love of the shed and his abilities to learn.

"Ben still amazes me to this day with his hidden talents," Laurel said. "Just like the day at Rylington Park when he was shown

once how to do things. He would watch the board and had it sussed as to which sheep was going to be finished first and was there waiting to pick up the fleece. He would press the fleece like he'd been doing it all his life. He was so at home in that shed.

"Then came the time for Kevin to let him shear part of a sheep – Ben listened intently to every instruction that was given to him from Kevin and away he went. That long smooth blow – it still brings goosebumps to me! It was as if he'd done it all before. I guess coming from a wool background myself, I appreciated what Ben had achieved that day.

"He has proven to so many people that being Down Syndrome doesn't mean you cannot learn, you just need people to believe in you and give you that extra bit of time to teach you. And if you teach them the right way the first time, you will never have to re-teach that skill."



If you submit a photo that gets published in Readers' Photos, you'll receive an autographed copy of Andrew Chapman's *'Woolsheds'*.

This 216-page hardback book is an invaluable historical record of an Australian icon. It is also available to purchase from www.andrewchapmanphotography.com and good bookshops.

STAYING WARM

Sarah Vale of 'Wynvale Corriedale Sheep' sent in this photo of a Corriedale ram lamb in a coat during cold weather in Orange, NSW.



IN THE AFTERNOON SUN

14-year-old Edwina Jones of 'Woodfield' at Cressy in Tasmania sent in this photo she took of her family's sheep happily waiting in the afternoon sun to be shorn.



FEEDING IN THE SNOW

Young Farming Champion Adele Offley sent in this photo of feeding sheep in the snow at Laggan near Crookwell on the Southern Tablelands of NSW.



WOOLMARK OPTIM WR JACKET

100% Merino wool fabric
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- Cuffs are adjustable with Velcro, and have reflector strips
- Zipped side pockets
- Side vent zips on both sides
- Adjustable elasticated drawstring at base of jacket
- Shoulder and hip 'bag grips' to stabilise shoulder-straps of bags
- Internal bag into which the jacket can be folded/stored
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