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Australian Wool  
Innovation Limited

## **OCTOBER ICC MEETING**

10 OCTOBER 2018

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# Meeting agenda

## **AWI Woolgrower Industry Consultative Committee (ICC)**

**Wednesday, 10 October 2018, 8.00am – 3.00pm**

**AWI's Sydney Office, Level 6, 68 Harrington St, The Rocks**

*Dinner: 7pm, 9<sup>th</sup> October at Endeavour Tap Rooms – 39/43 Argyle St, The Rocks NSW 2000  
(The Rocks)*

*The purpose of AWI's ICC is to enable AWI to formally consult with woolgrower representative organisations, allowing them to provide feedback on priorities from their members, and for AWI to report on its performance and plans. These priorities guide AWI's investment and activities.*

### **SESSION 1: Your members' priorities for AWI**

<b>TIME</b>		<b>AGENDA ITEM</b>	<b>DISCUSSION LEAD</b>
8:00		<b>Breakfast</b>	
8.30 – 8.45	<b>1</b>	<b>Welcome and general business</b> 1.1 Review minutes from previous meeting 1.2 Review actions from last meeting	Wal Merriman
8.45 – 10.05  (10 mins each member and 20 mins for guest participant)	<b>2</b>	<b>ICC members report on their members' R&amp;D and marketing priorities for AWI</b> 2.1 Australian Association of Stud Merino Breeders 2.2 Australian Superfine Woolgrowers Association 2.3 Australian Wool Growers Association 2.4 Broad wool breeds 2.5 Pastoralists and Graziers Association of WA 2.6 WoolProducers Australia 2.7 Liebe Group	ICC members
10.05 – 10.35	<b>3</b>	<b>ICC member agenda items – request for briefing from AWI on issues</b> <b>3.1</b> Australian Superfine Wool Growers' Association <b>3.2</b> Australian Wool Growers' Association <b>3.3</b> WoolProducers Australia	ICC Members
10.35 – 10.50		<b>Morning tea</b>	
10.50 – 11.20	<b>4</b>	<b>Update from Department of Agriculture, Water and Resources</b>	Michael Ryan DAWR

## SESSION 2: AWI report on priorities and performance

11:20 – 12:20	<b>5</b>	<b>AWI report back –WoolPoll 2018 update and Review of Performance update</b> <i>- invite discussion and input</i>	Don McDonald Peta Slack-Smith
12:20 – 12:50	<b>Lunch</b>		
12:50 – 1.50	<b>6</b>	<b>AWI report back – on farm R&amp;D update</b> <i>- invite discussion and input</i>	Jane Littlejohn
1.50 – 2.25		<b>AWI report back – marketing update</b> <i>- invite discussion and input</i>	Laura Armstrong
2.25 – 2.55	<b>7</b>	<b>AWI report back – WoolQ update</b> <i>- invite discussion and input</i>	Will Wilson
2.55 – 3.00	<b>8</b>	<b>Summary and close</b>	Wal Merriman

## ATTENDEES

<b>Representative</b>	<b>Position</b>	<b>Organisation</b>
Wal Merriman	Chair	AWI
Peter Meyer	President	Australian Association of Stud Merino Breeders
Danny Picker	President	Australian Superfine Woolgrowers Association
Martin Oppenheimer	Representative	Australian Wool Growers Association
Nick Cole	Representative	Broad wool breeds
Clinton Ayers	Representative	Pastoralists and Graziers Association of Western Australia
Ed Storey	Vice President	WoolProducers Australia
Alex Keamy	Representative	Liebe Group
Michael Ryan	Assistant Secretary – Animal Industries, RDCs, and Investment Agricultural Policy Division	Department of Agriculture and Water Resources (DAWR)
Stuart McCullough	CEO	AWI
Peta Slack-Smith	General Manager Corporate Affairs & Market Access	AWI
Emma Gittoes	Corporate Affairs Manager	AWI

## 1. October ICC Meeting Summary and Action Items

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**TITLE:** Meeting Summary and actions items arising from June ICC Meeting

**DATE:** 10 October 2018

### JUNE ICC MEETING SUMMARY

- The draft meeting summary from AWI's ICC meeting on 20 June 2018 ([Attachment 1.1](#)) was circulated to all members on **27 June**.
- ICC members were requested to provide any comments or feedback on the summary to AWI by **4 July**.
  - Ed Storey and Andrew McDonald requested for their comments to be incorporated and changes be made to the draft minutes. Minutes were finalised and uploaded to [www.wool.com/consultation](http://www.wool.com/consultation) on **9 July**.

### JUNE ICC MEETING ACTION ITEMS

- The following table presents the actions from the June ICC meeting, along with their status.

ACTION ITEM	STATUS	COMMENT
AWI to provide an update on the Campaign for Wool, specifically around activities focused on interior textiles and industrial wool.	Completed	See Attachment 1.2
AWGA requested the Voter Information Memorandum (VIM) be made available earlier in August. AWI suggested this go back to the WoolPoll Panel for consideration as the body established to address all WoolPoll related matters.	Completed	<p>An out of session teleconference of the WoolPoll Panel was held on 4 July to discuss this matter.</p> <p>Panel members were asked whether the Voter Information Memorandum (VIM) should be published on the WoolPoll website in advance of it being sent to voters, or only made available to eligible levy payers with their voter information kits, as has occurred in previous WoolPolls.</p> <p>Panel members agreed to publish the VIM on the website on 20 August to coincide with the call to action for woolgrowers to check their levy entitlement</p>

		in letters being sent that week.
PGA requested AWI distribute to industry bodies the updated Centre for International Economics (CIE) report on the impacts of a live export ban on the wool industry once completed.	Completed	AWI circulated the updated CIE report, along with a summary brief, via email to ICC members on 11 September 2018.
In relation to the Merino Lifetime Productivity (MLP) project, ICC members requested whether they could be of assistance to AWI in its negotiations with MLA.	In progress	<p>AWI advised ICC members on 9 July that in new developments with the Merino Lifetime Productivity (MLP) data issue, MLA and AWI have been in discussions and AWI has drafted a head of agreement, which is with MLA for review.</p> <p>AWI will keep ICC members updated on the progress of this project.</p>
ASWGA requested further information on the commercialisation intent for AWI's ear tag technology.	Completed	See Attachment 1.3
ASWGA to provide product details so that AWI can follow up with retailer whose wool jumper presented with holes after a few wears.	In progress	AWI continues to provide training to retailers and brands on sourcing the right wool for different products. AWI was unable to follow up the concern with the retailer as details of the product were not provided. Once received, AWI can action this item.

## ATTACHMENTS

- 1.1 AWI June 2018 ICC Meeting Summary
- 1.2 Campaign for Wool update
- 1.3 Ear tag commercialisation update

### **Purpose of AWI's Woolgrower Industry Consultative Committee (ICC)**

The purpose of AWI's ICC enables AWI to formally consult with woolgrower representative organisations, allowing them to provide feedback on priorities from their members, and for AWI to report on its performance and plans. These priorities guide AWI's investment and activities.

### **ATTENDEES**

<b>Representative</b>	<b>Position</b>	<b>Organisation</b>
Wal Merriman	Chair	AWI
Peter Meyer	President	Australian Association of Stud Merino Breeders (AASMB)
Cathy Hayne	Treasurer	Australian Superfine Woolgrowers Association (ASWGA)
Martin Oppenheimer	Representative	Australian Wool Growers Association (AWGA)
Nick Cole	Representative	Broad wool breeds (ACA)
Chris Patmore	Representative	Pastoralists and Graziers Association of Western Australia (PGA)
Ed Storey	Vice President	WoolProducers Australia (WPA)
Tom Kirk (Guest Participant)	Representative	Don Brown Ewe Competition (DBEC)
Andrew McDonald	Assistant Secretary	Department of Agriculture and Water Resources (DAWR)
Stuart McCullough	CEO	AWI
Peta Slack-Smith	General Manager Corporate Affairs & Market Access	AWI
Emma Gittoes	Corporate Affairs Manager	AWI

### **Welcome and general business**

#### **Review minutes and actions from previous meeting**

- Members endorsed the minutes from 16 February 2018 meeting with no issues raised.
- WPA noted the results of the missing AGM papers investigation and their collaboration in the process.
- In response to the action item from the February meeting for ICC members to write to AWEX regarding wool classer training, there was concern that there had been no response from AWEX. WPA noted they would follow up with AWEX on the matter through their representation on the AWEX Board.
- Concern was raised around delays in measuring data from the Merino Lifetime Productivity (MLP) project.
- All other action items were confirmed to be completed or addressed with no other issues raised.

## **ICC members report on their members' priorities**

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*AWI invited ICC members to provide their member's research, development and marketing priorities for AWI. AWI's Statutory Funding Agreement (SFA) with the Australian Government requires AWI to provide responses to the items raised in the ICC meeting record. The following summarises those priorities and AWI's response.*

*Australian Association of Stud Merino Breeders (AASMB) – Peter Meyer*

- Happy with AWI's current activities.
- Concern around shearing and noted the need for continuation of training and employment opportunities.
  - AWI response: *AWI invests around \$2 million annually to attract and retain shearers and wool handlers by building capacity through training, improving working conditions through best practice OH&S and shed design, and promoting shearing and wool handling as a profession and sport through competitions. AWI is working with Shearing Contractors Association on a project proposal to create ongoing local employment and training to strengthen the wool harvesting industry in Victoria.*
- Attended National Merino Challenge (NMC) for first time. Expressed disappointment that there wasn't more data shown at one of the stations – figures were presented but no raw data to relate to the figures. Disappointed most students hadn't handled a sheep and noted need to encourage this more through NMC.
  - AWI response: *AWI are always seeking feedback and looking at ways it can improve the NMC. It is noted that the NMC coordinator received this feedback from AASMB after the event and are already looking at incorporating more raw data at next year's event.*
- Encourage further research on the blow fly to support woolgrowers address flystrike. Noted the work that was done on the fruit fly and the release of sterile males to support the horticulture industry.
  - AWI response: *AWI agrees that there is potential in the fly genome area. AWI previously funded work on mapping of the fly genome, identifying 14,554 genes that make up the sheep blowfly. The challenge is to identify what function those genes have and use that knowledge to control flystrike. While it is high risk work, AWI is currently investing in a couple of projects.*

*Australian Superfine Wool Growers Association (ASWGA) – Cathy Hayne*

- Cathy Hayne declared her interest as a new Board member of Sheep CRC.
- Many comments from membership are around concerns of a lack of research and discontinuity of research.
- Need for continuing research for Barbers pole worm.
  - AWI response: *AWI recognises the drench resistance and climate variability factors that make Barbers Pole a difficult problem to address. AWI are currently funding a project with Monaro Farming Systems that includes best practice demonstration of worm testing and control for Barbers Pole. AWI and MLA also fund ParaBoss, which includes smart grazing advice related to management of Barbers Pole Worm.*
- Complimented AWI's marketing efforts, however there are first-hand reports where brands have used the wrong wool in knitwear. Noted an Australian brand jumper that developed holes after 3 wears. Suggests need for marketing advice to retailers explaining how to determine what wool they need to source to manufacture different garments.
  - AWI response: *AWI noted that retailers have complex sourcing departments and it's possible they're scaling back the quality of the wool they use to meet their price margins. AWI noted that they provide training to retailers and*



*brands on sourcing the right wool for different products. AWI will follow up with the retailer in question if they are provided with the product number, however it was also stressed that nothing speaks louder to a brand than consumer feedback.*

- Would like to see marketing target superfine wools, particularly Chinese brands.
  - *AWI response:* AWI noted that it has been working with Chinese labels for over 12 years, including the establishment of a specific category in the International Woolmark Prize for China - with over 100 Chinese designers now part of the Prize's alumni. AWI are currently working with over 20 designers for the new '50 years of Wool Trade with China' campaign, noting that so much of the wool that used to go to China was manufactured and exported go out, whereas now more of the clip is staying for the Chinese consumer.
- Noted AWI's Lifetime Ewe Management program is a good program that has supported 4,300 woolgrowers, however it doesn't reach far enough into the woolgrower base. Need for greater reach – for example, there is no group in the New England area – and for greater communications to get the word out.
  - *AWI response:* AWI acknowledges there is a need for increased promotion of LTEM to achieve its strategic target of participants. AWI are looking at training more LTEM Trainers, and have developed shorter ½ day workshops to lead into LTEM or for the LTEM alumni to participate in. AWI noted that while 8% of the woolgrower population had participated in LTEM, these growers represent 30% of the national ewe flock.
- Concerns around the wind-up of Sheep CRC that there won't be a body dedicated to undertaking research into genomics for woolgrowers past June 2019. Key issue is how to determine what research is important for woolgrowers over next 5-10 years and concerns that if AWI doesn't lead the research priority setting, it will result in duplication.
  - *AWI response:* The National Wool RD&E Strategy incorporates and cross-references a wide range of national and state industry plans and strategies. The Strategy is due to expire in 2020 and work will shortly begin on a new industry plan. AWI also has a three-year Strategic Plan that is developed following industry consultation. The current Strategic Plan is due to expire at the end of 2018/19, and AWI is starting consultation on the new Strategic Plan. There is opportunity to address this matter through both channels.
- Need for a dramatically different approach to shearing and wool handling, which hasn't changed in over 100 years. With the increase in fencing in Queensland, it's expected that more people will be going back into wool, creating additional strain on demand for shearers and wool handlers. Concerns also being raised by trainers around the adequacy of wool classer training and the adverse impact of TAFE funding cuts on training.
  - *AWI response:* AWI agrees this is a critical issue for woolgrowers, being the largest production cost, subsequently it is a key priority for investment. Since 2015, AWI has delivered more than 3,899 shearer and wool handler training days to more than 16,665 people at all skill levels - from novices to professionals – to improve productivity and achieve best practice standards. This in-shed training is available nationwide and AWI encourages woolgrowers to contact AWI if they would like to run shearer or wool handler training in their sheds. AWI noted that classer training was an AWEX issue.
- Query around the future of stencilling with the introduction of WoolQ and ID tags in wool bales.
  - *AWI response:* AWI advised that they have been undertaking research into digital tags for bales using long range Bluetooth (to complement our ear tag technology) with Android phones acting as receivers. The technology aims to

*date and time stamp the bale and its location. AWEX is also currently looking at bale tag technology, however theirs runs on RFID, rather than Bluetooth. This technology may make stencilling unnecessary. Current barcoding on top of bales could potentially be incorporated into WoolQ.*

- Request for update on ear tag technology research.
  - *AWI response: AWI advised that they are currently trialling ear tag technology on around 5,000 sheep, with tests gauging the impacts of shearing and of different plastic casing compositions. The solar cell being used in the tag has been expanded to provide a longer life, with the first trials failing because of battery issues. Trials are so far very successful, with future R&D set to look at the algorithms around the movement of animals to understand more about animal behaviour.*

#### *Australian Wool Growers Association (AWGA) – Martin Oppenheimer*

- Main concern for woolgrowers across the country is the ongoing poor season and outlook for next summer. Noted that it's affecting joinings in the south and will put on hold any hope of national flock expansion.
- Waiting to see how the Minister will respond to the Review of Performance (ROP) report by EY. Many are happy that the EMI has reached 2000c/kg, however there are calls for change in how levy is managed and governance of AWI including a more representative and skilled Board. It was noted that programs such as genetics show how the levy spend is not working for industry and is evidence of a lack of vision for industry. Looking forward to the Board's response to the ROP.
  - *AWI response: AWI noted that industry has had the opportunity to raise issues with EY as part of the ROP. The review has been extremely thorough and AWI has been very cooperative providing all information requested by EY. AWI will consider all recommendations and any subsequent action required once it receives the final report.*

#### *Broad wool breeds – Nick Cole (Australian Corriedale's Association, ACA)*

- Reaffirmed that the adequacy of classer training is a continuing problem, noting that the current training is very fragmented, too spread out and not sufficient.
  - *AWI response: AWI noted that classer training was an AWEX issue.*
- Would like to see more done with interior textiles and industrial wool – particularly around working to have special premiums with insurance companies for fire ratings.
  - *AWI response: AWI advised that work on interiors is undertaken through the Campaign for Wool, which AWI is a major sponsor. AWI will provide an update to the ICC on the work of the Campaign for Wool.*

#### *Pastoralists and Graziers of WA (PGA) – Chris Patmore*

- Appreciate AWI's work on wild dog control and the AWI Wild Dog Coordinator.
- Noted Sheep Producers Australia and National Farmers Federation are leading the industry response on live exports. Acknowledge AWI's support in 2014 with the commissioning of the Centre for International Economics (CIE) report on the import of a live export ban on the wool industry.
  - *AWI response: AWI noted that the CIE report came about as a request from the ICC in 2013. AWI have commissioned CIE to update the report and are expecting a draft shortly, which will be circulated to industry groups.*
- Encourage research on the fly genome and look forward to AWI's upcoming breech strike update.
  - *AWI response: AWI's annual breech strike R&D update will be held on 17 July 2018.*

- Request support from AWI for the prospectus that has is currently being developed by WA's Sheep Alliance.
  - AWI response: *AWI noted they have provided initial funding to support the development of the prospectus, and will work closely with Sheep Alliance to identify projects and ensure they align with AWI's Strategic Plan. Any project proposals will be assessed through AWI's normal approvals process.*
- Commend AWI's shearer and wool handler training. Currently seeing an abundance of shearers and classers in the industry, but not a lot of shed staff.
  - AWI response: *AWI noted that it provides support for shed staff training.*

#### *WoolProducers Australia (WPA) – Ed Storey*

- Noted that industry hadn't offered remedies to address the issues raised in the 60 Minutes story.
- Noted concerns from a group in SA that classer training is too long and too expensive. WPA have taken it to AWEX to see that the trainers get balance right. Issues arising with growers moving to 6-8 month shearing, which is resulting in disjointed work that is contributing to lack of continuity and professional development.
  - AWI response: *AWI notes this view is different to the advice provided in the letter from ICC members to AWEX. ICC members requested WPA seek a response from AWEX on their letter.*
- Query whether there is a point in future where Australia can't supply the quality and type of wool that the market needs. Does AWI see this as a big risk and will there be a point where lack of supply becomes a problem to the industry?
  - AWI response: *AWI noted that the market treats wool as a luxury fibre. AWI's marketing strategy targets luxury brands to affect a trickle-down effect, and believes the market is sustainable at the high end. While there are macroeconomic factors that may impact global trade (such as trade wars), supply is expected to remain steady and the consumer trends of sustainability and casualisation will remain. AWI notes that competitive land issues are a concern, particularly with the next generation of tech-savvy farmers coming through and the current good prices across most commodities.*
- Request for an update on training being undertaken by the AWI Executive.
  - AWI response: *AWI noted that the AWI Chair and Global Communications Manager have undertaken media training. The CEO has undertaken media training in the past and is planning to undertake further media training, along with other staff members that may benefit from training.*
- Requested an update on AWI's proposal for all woolgrowers to have access to Woolmark stencils for their bales and query around what area of market failure the proposal addresses.
  - AWI response: *AWI noted that the proposal is in the very early stages and will provide an update at the next ICC meeting. The proposal is trying to trace Australian wool bales from farm, using the Woolmark logo, down the supply chain. AWI noted that there's an increasing expectation from consumers for traceability, but that they will take advice from the ICC if they believe the initiative should not proceed.*
- Concern that CLiK sheep blowfly treatment is no longer lasting as long.
  - AWI response: *AWI noted that through the work being undertaken in the fly genome R&D program, researchers can fast track their research in a range of other areas such as drug, vaccine, and biological control targets.*

#### *Don Brown Ewe Competition (DBEC) – Tom Kirk*

- Noted communications with AWI are good and frequent updates are received.
- Noted shareholders ability to influence the Board through Director elections.

- *AWI response: All eligible levy payers (who have paid \$100 or more in wool levy over the past 3 years) can elect to become shareholders of AWI and vote at AGMs and in Director elections.*
- Lambing is a major priority, noting the Merino ewe doesn't lamb as well as other breeds. Requested more research into lambing percentages.
  - *AWI response: AWI is currently undertaking research projects into optimising lamb survival through mob size and density, metabolic disorders in pregnant ewes, improving prediction of ovine foetal age, identifying ewes with greater reproduction efficiency and the use of sensor technology for parentage and monitoring. AWI has also developed extension programs to support growers to increase their lambing percentages including new half day workshops - Winning with Weaners, Realising Productivity Potential - and AWI's successful Lifetime Ewe Management program.*
- Concern that shearing is stopping many people from coming back into the industry.
  - *AWI response: AWI is heavily focused on the alternative wool harvesting technology space. AWI has contracted an innovation team to further their early stage prototype elements for automated Wool harvesting. AWI has also commenced a scoping study to understand the technical challenges pertinent to the development of semiautonomous robotic shearing systems.*
- Support current marketing activities and believe they are going well.
- Believe that outcomes for R&D for bare breech are a long way off, and will fight against production.
  - *AWI response: AWI is currently exploring fly genome R&D initiatives to assist woolgrowers in managing and minimising the impacts of flystrike.*

#### **Update from Department of Agriculture, Water and Resources**

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- In the recent Budget, the Government allocated \$224 million to support exports and biosecurity. \$51 million will be put towards increasing the number of Agricultural Counsellors posted in key export markets. \$121 million has been allocated to increase biosecurity efforts, including to address the exponential growth that has been seen in online shopping. Funds have also been allocated to address pests and weeds. The Government has also provided \$6.3 million to improve access to new minor use chemicals to address market gaps.
- Drought support is available for producers in the form of Rural Financial Counsellors, the farm household allowance (now extended to a cumulative receipt period of 4 years), and farm business concessional loans (which will be delivered by the Regional Investment Corporation from 1 July).
- On live exports, the Minister is keen to put trade on a sustainable footing to meet community standards and provide export income. The government launched a series of reviews, with the major McCarthy Review having now been completed and released. The Minister accepted all of the recommendations. Work is currently underway to develop a practical, reliable and consistent heat-stress risk assessment model to apply to future regulatory requirements. The Minister has also commissioned a review into DAWR into the capability, culture and investigative powers of DAWR in regulating the trade.
  - AWI noted that it is not aware of any concerns from the wool supply chain.

#### **AWI report back - current activities and finances**

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AWI briefed ICC members on the following:

- Update on WoolPoll 2018 and a recap of the appointment of the WoolPoll Panel, and the roles and responsibilities for AWI and the Panel.

- AWGA would like to see the levy rate options and supporting information made available at the launch of WoolPoll to enable time for industry debate.
    - *AWI response: AWI suggested this go back to the WoolPoll Panel for consideration as the body established to address all WoolPoll related matters. This was agreed by ICC members.*
- Update on the independent Review of Performance currently being undertaken by EY. AWI welcomes the review and has been fully cooperative in providing any information requested by EY. The level of detail EY is going to has been very forensic and surpasses any previous reviews. The final report is expected to be released by the Minister in July.
  - DAWR noted the report will contain recommendations and will identify areas where AWI has performed well and other areas to be improved.
- Update on AWI's on-farm R&D activities in the Sheep Production portfolio and extension activities in the Woolgrower Services portfolio.
  - In relation to the Merino Lifetime Productivity (MLP) project, AWI noted it is keen to finalise negotiations with MLA, University of New England and NSW Department of Primary Industries so that industry can fully utilise the phenotype and genotype data, analysed results and updated methodologies derived from the project. However, MLA are yet to provide an indication of their position. ICC members requested a further background briefing on this matter to make representations to MLA.
  - AWGA requested further information on the commercialisation intent for AWI's ear tag technology.
- Report on the current market analysis noting that supply can't keep up with demand, and the main problem is trying to keep people from going into competing industries. Best prices are being seen by 18-22 micron wool, and prices can be sustainable if the industry can keep in touch with the consumer. Sportswear is the biggest trend at present with the market seeking soft handling, next to skin wool in performance wear.
  - AWGA asked whether there's a downside to prem shorn wool.
    - *AWI response: AWI indicated that anything under 60mm in length is running a risk.*
- Update on AWI's off-farm product innovation and education activities in the Processing Innovation and Education Extension portfolio. Noted that over the past 5 years, there's been a significant increase in demand for wool from the supply chain as a result of AWI's constant, consistent messaging and the rise of consumer importance on sustainability and natural products.

SHEEP PRODUCTION DELIVERABLES 2017/18				
OVERALL OBJECTIVE		Increase the profitability and sustainability of woolgrowing.		
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS	
Healthy Productive Sheep	SHEEP HEALTH & WELFARE	<ol style="list-style-type: none"> <li>1. Pre-operative pain relief available for routine surgical procedures.</li> <li>2. Breech modification alternatives commercialised.</li> <li>3. Development of an ASBV for faecal consistency.</li> <li>4. Improved laboratory diagnostic testing for worms and larvae.</li> <li>5. Sustained increase in grower utilisation of the ParaBoss website.</li> <li>6. Wool bale decontamination and disinfection procedures developed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Achieved - target updated to "Support adoption of pain relief technologies."</li> <li>2. Revised target to "Viable breech modification technologies available for commercialization". The Liquid Nitrogen Procedure research will discontinue as welfare impact cannot be mitigated with current analgesics or anaesthetics. SkinTraction is registered with APVMA, but no product is being produced due to lack of demand (a non-commercial offer). Further R&amp;D needs strong private sector element.</li> <li>3. Target removed. AWI have not been able to get AGBU to prioritise this, so target was not able to be achieved.</li> <li>4. In progress. 90 samples from 30 mobs tested with old and new methods at last report.</li> <li>5. In progress. Survey on grower use currently in planning stages.</li> <li>6. In progress. 3% citric acid tested on bales complete and testing on the mobility of the spray unit is underway.</li> </ol>	
	VERTEBRATE PESTS	<ol style="list-style-type: none"> <li>1. Effective national and regional coordination of vertebrate pest control effort in sheep producing areas.</li> <li>2. Effective assistance to producer groups to establish the basis for sustainable long-term vertebrate pest control programs.</li> <li>3. 15 new community based vertebrate pest control groups established each year, bringing to a total of 165 group supported by end 2018/19, with the value of avoided stock loss (sheep) greater than costs to wool growers and AWI combined.</li> <li>4. Support for programs which enhance producers ability to efficiently and effectively control Rabbits in the long term.</li> </ol>	<ol style="list-style-type: none"> <li>1. Achieved. Queensland Coordinators now appointed with new joint-contributions from MLA secured.</li> <li>2. On target. Almost a quarter of the wild dog groups that received funding for infrastructure saw an average reduction of 93% in sheep losses; 85% of the groups that received funding for direct killing tools saw an average reduction of 95% in sheep losses.</li> <li>3. Achieved. Target updated to "Maintain support to existing funded groups and expand to other vertebrate pests." There are currently 47 groups, with 170 groups supported to date.</li> <li>4. On target. RHDVK5 released at 382 sites, achieving a mortality rate of 38%.</li> </ol>	
	REPRODUCTION	<ol style="list-style-type: none"> <li>1. An extra 1500 AWI-funded participants in LTEM (500 per annum), representing 15% of the adult ewe flock in Australia, that increase lamb weaning rates by 7%, and reduce ewe mortality by 30%.</li> <li>2. At least 250 producers engaged in determining the impact of lambing density (ewe mob size and stocking rate) on lamb survival.</li> <li>3. At least 200 producers engaged in developing the strategies and guidelines for improving weaner and maiden ewe performance.</li> <li>4. Undertake market research on a range of producer and industry segments to inform; (i) strategies that enhance producer engagement, (ii) design/pilot extension approaches that increase adoption of best practice, (iii) more thorough evaluation of whole farm impacts of LTEM, and (iv) quantify the degree and reasons for Merino ewe displacement.</li> </ol>	<ol style="list-style-type: none"> <li>1. In progress. 1,404 participants enrolled. With one year to go, potential that the target may not be met if the poor seasonal conditions are not reversed and additional trainers do not become accredited LTEM deliverers. Preliminary survey data on weaning rates and lamb mortality not yet available.</li> <li>2. In progress. 176 producer sites and funding to expand to pastoral.</li> <li>3. Grower numbers will not be achieved due to delays in developing the Winning With Weaners workshop. Revised target to "Strategies to improve weaner and maiden ewe performance developed." New Winning With Weaners workshop piloted with 19 growers and 60 attendees planned.</li> <li>4. Target removed as considered operational.</li> </ol>	
	GENETIC IMPROVEMENT	<ol style="list-style-type: none"> <li>1. At least 3,800 Merino ewe progeny being evaluated for lifetime productivity across at least 5 regionally representative sites, in partnership with Australian Merino Sire Evaluation Association.</li> <li>2. Routine, low-cost per head alternatives to genomic parentage technology in wide commercial use for mothering-up Merino lambs.</li> <li>3. Australian sheep breeders maintain access to consolidated and improved wether trial, central test sire evaluation and MERINOSELECT databases.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target – target expected to be exceeded. 135 unique sires, 5 sites, F1 ewe base 19,409. 2,694 joined as of April but expect to meet the 3,800 target across the sites.</li> <li>2. On target. Still working with plastics for the tag housing to get the final ear tag product durable. Technology works - radio beacons on collars. Solar panels work.</li> <li>3. On target. Breeders have access to all forms of evaluations listed (wether trials, AMSEA and MERINOSELECT), and AWI are funding RD&amp;E to enhance and improve the evaluations. In new developments with the MLP data access and analysis agreement, MLA have now asked AWI to draft a contract.</li> </ol>	

<b>Farm Automation &amp; Software Development</b>		<p>1. Develop and demonstrate across sheep production systems smart sheep ear tags capable of generating maternal pedigree, automatic geo-location, and welfare alerts, and integrating with virtual fencing advances.</p> <p>2. Assess and improve the understanding and application of data collected by sensor technology.</p> <p>3. Develop software to maximise benefits of sensor technology for farmers.</p>	<p>1. In progress. Currently contracting with CQUniversity on alerts.</p> <p>2. In progress. Proximity sensors being trialled, and accelerometer trials are currently in contract negotiations.</p> <p>3. In Progress. Algorithms (software) is developed for proximity for maternal parentage and other algorithm development opportunities are in contract negotiations.</p>
<b>Feedbase &amp; Fibre Advocacy</b>	<b>FEEDBASE &amp; ECO-CREDENTIALS</b>	<p>1. Generate significant improvement in wool's environmental footprint ratings, and strengthen wool's reputation for environmental stewardship.</p> <p>2. Through better understanding of constraints to grower investment in pasture renovation, increase adoption of beneficial feedbase practices with currently modest adoption rates – reaching 20% of all growers by 2018.</p> <p>3. Prepare woolgrowers for the effects of climate change - by 2019, 50% of woolgrowers will have implemented climate change mitigating or adapting technologies without loss of profit.</p>	<p>1. In progress. Microplastics research published, garment life use research published. Findings are being taken through IWTO to use their influence to advocate changes to various “sustainability index” rankings of wool.</p> <p>2. In planning phase - target revised as grower numbers will not be achieved due to late start of workshop development with the draft brand of feedbase fit. New target is "Increase adoption of beneficial feedbase practices by 20% by 2021."</p> <p>3. On target. Surveys showing change through existing actions and best practices</p>
	<b>FIBRE ADVOCACY</b>	<p>1. Internationalize studies demonstrating that Merino base-layer garments ameliorate chronic skin conditions associated with microclimate management of the skin.</p> <p>2. Demonstrate that wool bedding and sleepwear improves sleeping conditions.</p> <p>3. Support development of product market opportunities in categories such as corporate wear, safety wear, medical product and infants wear.</p> <p>4. Develop specifications for next-to-skin wear to improve reliability and consumer confidence in Merino baselayer garments.</p>	<p>1. On target. Contracts currently being negotiated with international dermatologists.</p> <p>2. Achieved. Sleep study published demonstrating wool supports a less fragmented, makes you fall asleep quicker, and decreases total wake time.</p> <p>3. On target. A study has assessed demand for fire resistant baselayers to be a 3 fibre blend with wool being one (alongside aramid and cellulosic that are flame resistant). Research on this blend is progressing. Research into infant wear and medical products is related to targets 1 and 4.</p> <p>4. On target. Draft specifications for next-to-skin wear to improve reliability and consumer confidence have been developed.</p>



## OVERVIEW OF AWI'S TRAINING AND EXTENSION PROGRAMS

### State Networks Coordinator Contacts

AWI encourages all woolgrowers to become members of their State Network to stay informed on industry events and information. It's best way to keep up to date with the latest research and innovations that growers can be adopting for their business. AWI State Network websites host webinar recordings, tools, resources and more.

**To register, please contact your relevant AWI State Network Coordinator:**

AWI GROWER NETWORK	COORDINATOR	PHONE	EMAIL
<b>SheepConnect NSW</b> <a href="https://www.sheepconnectnsw.com.au">https://www.sheepconnectnsw.com.au</a>	Megan Rogers	0427 459 891	<a href="mailto:admin@sheepconnectnsw.com.au">admin@sheepconnectnsw.com.au</a>
<b>The Sheep's Back WA</b> <a href="https://sheepsback.com.au">https://sheepsback.com.au</a>	Andrew Ritchie	08 9736 1055	<a href="mailto:andrew@iconag.com.au">andrew@iconag.com.au</a>
<b>SheepConnect SA</b> <a href="https://www.sheepconnectsa.com.au">https://www.sheepconnectsa.com.au</a>	Ian McFarland	0437 659 353	<a href="mailto:ian.mcfarland@sa.gov.au">ian.mcfarland@sa.gov.au</a>
<b>SheepConnect Tas</b> <a href="https://sheepconnecttas.com.au">https://sheepconnecttas.com.au</a>	James Tyson	0409 006 774	<a href="mailto:james.tyson@utas.edu.au">james.tyson@utas.edu.au</a>
<b>Leading Sheep QLD</b> <a href="http://www.leadingsheep.com.au/">http://www.leadingsheep.com.au/</a>	Nicole Sallur	07 4530 1270	<a href="mailto:nicole.sallur@daf.qld.gov.au">nicole.sallur@daf.qld.gov.au</a>
<b>BestWool/BestLamb Vic</b> <a href="http://agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks">http://agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks</a>	Lyndon Kubeil	03 5761 1649	<a href="mailto:lyndon.kubeil@ecodev.vic.gov.au">lyndon.kubeil@ecodev.vic.gov.au</a>

### Half-day workshops

New half day workshops include:

- Realising Performance Potential
- Winning With Weaners
- RAMping Up Repro

Events and workshops available for woolgrowers are not limited to the above. To see the current suite of events, please visit the events pages on your relevant AWI State Network websites.

### To register:

For workshop expressions of interest, please contact your relevant AWI State Network Coordinator above.



## Lifetime Ewe Management (LTEM)

The Lifetime Ewe Management program runs over the 12-month weaning to weaning cycle. The timing of each meeting is linked to critical stages in the management of the ewe's reproductive cycle. All sessions involve a visit to each participant's farm and focus on condition scoring, pasture assessing and feed budgeting activities that are practical and applicable to the farm business.

The program also focuses on improving producer understanding of the influences ewe nutrition has on the performance of the ewe and her progeny.

The Lifetime Ewe Management workshop provides a pathway for woolgrowers to develop a successful and productive animal production system.

<http://rist.edu.au/lifetime-ewe-management-non-accredited.php>

### To register:

Email [info@rist.edu.au](mailto:info@rist.edu.au) or call 03 5573 0943

### For more information, contact:

Meg Bell, National Lifetime Ewe Management Leader (Acting)

[mbell@rist.edu.au](mailto:mbell@rist.edu.au)

Tel: 03 5573 0990

## Shearer and Wool Handler Training

AWI's in-shed shearer and wool handler training aims to attract and retain shearers and wool handlers by building capacity through training, improving working conditions through best practice OH&S and shed design, and promoting shearing and wool handling as a profession and sport through competitions. This training is available nation wide.

### To register and for further information, contact:

Jim Murray, AWI Shearing Industry Development Program Manager

[jim.murray@wool.com](mailto:jim.murray@wool.com)

Tel: +61 2 8295 3180

Mob: +61 427 460 007

## 'It's Ewe Time'

Forums are currently being rolled out with MLA in NSW and QLD this July and August. For a full listing of the 'It's ewe time' forum's and where to register see the link below, the attached flyer provides the agenda, location, topics and speakers for the Cooma, Gunning and Cowra series. The August event flyers are yet to be finalised.

### Register here:

<http://www.makingmorefromsheep.com.au/events.htm>

### For more information, contact:

Anne Collins, National Coordinator, MLA/AWI "It's ewe time" Forums

AC Ag Consulting  
[ACAgConsulting@bigpond.com](mailto:ACAgConsulting@bigpond.com)  
Mob: 0427 486 115

### **AWI drought resources**

AWI has a range of drought planning, management and recovery resources available for woolgrowers going into, enduring and recovering from drought.

<https://www.wool.com/on-farm-research-and-development/sheep-health-welfare-and-productivity/sheep-nutrition/awi-drought-resources/>

# RAMPING UP REPRO™

## ABOUT RAMPING UP REPRO™

RAMPing Up Repro (RUR) is a hands-on workshop focussed on improving ram performance and working longevity in commercial sheep enterprises.

The workshop is designed increase the skill of producers across the key components of ram performance and impacts on overall breeding enterprise performance, including:

- Anatomy
- Physiology
- Spermatogenesis
- Metabolic demands
- Health, disease & biosecurity
- Financial impact of the ram team

Each participant is guided through a thorough pre-joining ram inspection by an accredited workshop deliverer and given the opportunity to increase their practical skills to undertake this in their own operation. This workshop is designed to give attendees the confidence to incorporate these skills into their own routine management, thus improving the performance of their rams.

## EXPECTED OUTCOMES FOR WOOLGROWERS

Producers will learn practical skills including:

- Identification of anatomical structures and knowledge of physiology directly impacting on the ability of the ram to serve and perform
- The ability to perform a thorough pre-joining ram inspection, regarding critical structures and timing
- The principles and skill of condition scoring and its impact on ram team management

- A sound understanding of the animal health, disease and biosecurity considerations that need to be considered when managing a ram or ram team for a successful joining

## WORKSHOP PROGRAM

9:00 AM	Workshop introduction
	Pre-joining ram inspection - theory
	Pre-joining ram inspection - practical
11:00 AM	Morning tea
11:20 AM	Ram economics
	Ram health
	Vaccination site & technique
	Ram management
	Further information
1:00 PM	Lunch & discussion
2:30 PM	Close

## WHEN AND WHERE

Workshops are run on a demand basis through AWI's State Grower Networks across Australia. To see upcoming workshops in your region, go to:

STATE	WEBSITE
VIC	<a href="http://www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb">www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb</a>
QLD	<a href="http://www.leadingsheep.com.au">www.leadingsheep.com.au</a>
NSW	<a href="http://www.sheepconnectnsw.com.au">www.sheepconnectnsw.com.au</a>
SA	<a href="http://www.sheepconnectsa.com.au">www.sheepconnectsa.com.au</a>
TAS	<a href="http://www.sheepconnecttas.com.au">www.sheepconnecttas.com.au</a>
WA	<a href="http://www.sheepsback.com.au">www.sheepsback.com.au</a>

## FOR MORE INFORMATION OR TO REGISTER YOUR INTEREST

AWI GROWER NETWORK	COORDINATOR	PHONE	EMAIL
BESTWOOL/BESTLAMB (Vic)	Lyndon Kubeil	03 5761 1649	<a href="mailto:lyndon.kubeil@ecodev.vic.gov.au">lyndon.kubeil@ecodev.vic.gov.au</a>
Leading Sheep (Qld)	Nicole Sallur	07 4530 1270	<a href="mailto:nicole.sallur@daf.qld.gov.au">nicole.sallur@daf.qld.gov.au</a>
Sheep Connect NSW	Megan Rogers	0427 459 891	<a href="mailto:admin@sheepconnectnsw.com.au">admin@sheepconnectnsw.com.au</a>
Sheep Connect SA	Ian McFarland	0437 659 353	<a href="mailto:ian.mcfarland@sa.gov.au">ian.mcfarland@sa.gov.au</a>
Sheep Connect Tasmania	James Tyson	0409 006 774	<a href="mailto:james.tyson@utas.edu.au">james.tyson@utas.edu.au</a>
The Sheep's Back (WA)	Andrew Ritchie	08 9736 1055	<a href="mailto:andrew@iconag.com.au">andrew@iconag.com.au</a>

## WOOL.COM

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# MERINOS – REALISING PERFORMANCE POTENTIAL (RPP)

## ABOUT RPP

The AWI developed and funded RPP workshop is designed for wool producers aiming to lift lifetime performance from their Merino ewes. RPP identifies key practical actions for commercial enterprises to implement on farm to achieve this performance aim.

RPP assists the commercial self-replacing Merino production sector in recognising and placing appropriate importance on the total lifetime productivity potential and value of their Merino ewes (fleece, meat and surplus stock) and aims to achieve a minimum weaning rate of 95% from Merino joinings.

RPP is designed to complement the AWI-funded Lifetime Ewe Management (LTEM) Program and provide pathways into other AWI supported training opportunities.

## THE 5 KEY THEMES OF RPP

1. Understand ewe lifetime performance
  - passengers vs. performers
2. Lift ewe performance as a National Priority
3. 3 key performance practices:
  - scan
  - condition score
  - wet/dry at marking
4. Turning potential to profit – lamb and wean well
5. Strategies for success – management calendar

## WHAT YOU NEED TO KNOW ABOUT RPP

- single day workshop (9:00am - 2:30pm)
- conducted through AWI's State Grower Networks
- 15 - 25 participants per workshop
- fully catered
- \$75 per person
- delivered by an accredited deliverers

## ATTENDEES RECEIVE

- full set of workshop notes
- ewe management calendar
- checklist for use in their own operation
- information on pathways for future learning

## WHEN AND WHERE

Workshops are run on a demand basis through AWI's State Grower Networks across Australia. To see upcoming workshops in your region, go to:

STATE	WEBSITE
VIC	<a href="http://www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb">www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb</a>
QLD	<a href="http://www.leadingsheep.com.au">www.leadingsheep.com.au</a>
NSW	<a href="http://www.sheepconnectnsw.com.au">www.sheepconnectnsw.com.au</a>
SA	<a href="http://www.sheepconnectsa.com.au">www.sheepconnectsa.com.au</a>
TAS	<a href="http://www.sheepconnecttas.com.au">www.sheepconnecttas.com.au</a>
WA	<a href="http://www.sheepsback.com.au">www.sheepsback.com.au</a>

## FOR MORE INFORMATION OR TO REGISTER YOUR INTEREST

AWI GROWER NETWORK	COORDINATOR	PHONE	EMAIL
BESTWOOL/BESTLAMB (Vic)	Lyndon Kubeil	03 5761 1649	<a href="mailto:lyndon.kubeil@ecodev.vic.gov.au">lyndon.kubeil@ecodev.vic.gov.au</a>
Leading Sheep (QLd)	Nicole Sallur	07 4530 1270	<a href="mailto:nicole.sallur@daf.qld.gov.au">nicole.sallur@daf.qld.gov.au</a>
Sheep Connect NSW	Megan Rogers	0427 459 891	<a href="mailto:admin@sheepconnectnsw.com.au">admin@sheepconnectnsw.com.au</a>
Sheep Connect SA	Ian McFarland	0437 659 353	<a href="mailto:ian.mcfarland@sa.gov.au">ian.mcfarland@sa.gov.au</a>
Sheep Connect Tasmania	James Tyson	0409 006 774	<a href="mailto:james.tyson@utas.edu.au">james.tyson@utas.edu.au</a>
The Sheep's Back (WA)	Andrew Ritchie	08 9736 1055	<a href="mailto:andrew@iconag.com.au">andrew@iconag.com.au</a>

## WOOL.COM

# WINNING WITH WEANERS (WWW)



## ABOUT WINNING WITH WEANERS™

The Winning With Weaners™ (WWW) workshop is designed for woolgrowers, and is aimed at improving weaner management of their Merino flock, targeting 95% weaner survival to one year of age. WWW identifies key practical actions and tools for commercial enterprises to implement on farm to achieve this performance aim.

WWW assists participants in understanding the key issues affecting weaner survival and performance and guides them through developing targets for growth for this key cohort of sheep. The workshops discuss factors that contribute to weaner mortality and illthrift, and provides practical pathways for improving performance from this group of sheep.

## THE KEY THEMES OF WINNING WITH WEANERS

1. Understand the impact of weaning weight on the survival of weaners to first joining
2. Understanding weaner nutrition - in terms of both energy and protein
3. Setting weaner weight targets
4. Understanding the importance of weaner management on lifetime performance of breeding ewes
5. Strategies for success – management calendar

## ATTENDEES RECEIVE

- a full set of workshop notes
- useful tools that will assist with monitoring and planning for successful weaner management
- a checklist for use in their own operation

## WHEN AND WHERE

Workshops are run on a demand basis through AWI's State Grower Networks across Australia. To see upcoming workshops in your region, go to:

## WHAT YOU NEED TO KNOW ABOUT WWW

- single day workshop
- conducted through AWI's State Grower Networks
- 15 - 25 participants per workshop
- fully catered
- \$75 per person
- delivered by accredited deliverers

STATE	WEBSITE
VIC	<a href="http://www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb">www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb</a>
QLD	<a href="http://www.leadingsheep.com.au">www.leadingsheep.com.au</a>
NSW	<a href="http://www.sheepconnectnsw.com.au">www.sheepconnectnsw.com.au</a>
SA	<a href="http://www.sheepconnectsa.com.au">www.sheepconnectsa.com.au</a>
TAS	<a href="http://www.sheepconnecttas.com.au">www.sheepconnecttas.com.au</a>
WA	<a href="http://www.sheepsback.com.au">www.sheepsback.com.au</a>

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Leading Sheep (Qld)	Nicole Sallur	07 4530 1270	<a href="mailto:nicole.sallur@daf.qld.gov.au">nicole.sallur@daf.qld.gov.au</a>
Sheep Connect NSW	Megan Rogers	0427 459 891	<a href="mailto:admin@sheepconnectnsw.com.au">admin@sheepconnectnsw.com.au</a>
Sheep Connect SA	Ian McFarland	0437 659 353	<a href="mailto:ian.mcfarland@sa.gov.au">ian.mcfarland@sa.gov.au</a>
Sheep Connect Tasmania	James Tyson	0409 006 774	<a href="mailto:james.tyson@utas.edu.au">james.tyson@utas.edu.au</a>
The Sheep's Back (WA)	Andrew Ritchie	08 9736 1055	<a href="mailto:andrew@iconag.com.au">andrew@iconag.com.au</a>

## WOOL.COM



# It's ewe time!

- ✓ Grow 10% more wool
- ✓ Achieve 10% more carcase value
- ✓ Produce 10% more lambs per hectare



## THE SHEEP INDUSTRY'S POPULAR SERIES OF FORUMS ARE BACK!

- **Alpine Hotel, Cooma, NSW:** Tuesday 24 July
- **Gunning Shire Hall, Gunning, NSW:** Wednesday 25 July
- **Cowra Services Club, Cowra, NSW:** Thursday 26 July

### FEATURING GUEST SPEAKERS INCLUDING:



**MEGAN ROGERS**  
SheepSMART Solutions  
*Managing Ewes in  
Dry Times*



**HAMISH DICKSON**  
AgriPartner Consulting  
*Measuring to Manage*



**GEOFF DUDDY**  
Sheep Solutions  
*Maximising  
Weaner Performance*



**SIMON VOGT**  
Rural Directions  
*Extending Positive  
Price Cycles*



**MATT PLAYFORD**  
Dawbuts  
*Your Sheep Health  
is Your Wealth*

Registration for the half-day forum opens from 8.30am, the forum starts at 9am and finishes at 12.50pm, followed by informal lunch with speakers. Cost is \$35 per person, including forum booklet and all catering.

**FIND OUT MORE AND REGISTER AT:**  
[www.makingmorefromsheep.com.au/events](http://www.makingmorefromsheep.com.au/events) or call 1800 070 099

# Making More From Sheep

## It's ewe time! Forums

TIME	TOPIC	SPEAKER
8:30	<b>Registration</b>	
9:00	<b>Introduction (Chair) inc. Meat &amp; Wool Outlook</b> AWI will chair the forum and provide a brief insight into the market outlook for both the sheepmeat and wool sectors.	<b>AWI</b>
9:20	<b>Managing Ewes in Dry Times</b> With limited paddock feed available throughout much of NSW, the nutrition and management of pregnant and lactating ewes is crucial to maximise ewe and lamb survival and to manage life-time productivity of the ewe. Megan will discuss nutrition requirements and management strategies that can be put in place to ensure a successful outcome.	<b>Megan Rogers</b> SheepSMART Solutions, Forbes, NSW
9:55	<b>Maximising Lamb Performance (Cooma)</b> Doug will discuss options for Monaro sheep producers to maximise the performance of their young sheep. He will present the latest information on options for raising lambs to a finished product through the adoption of strategies such as creep feeding and the use of specialist pastures and fodder crops.	<b>Doug Alcock</b> Graz Prophet Consulting, Cooma, NSW
9:55	<b>Maximising Weaner Performance (Gunning &amp; Cowra)</b> Geoff will discuss the best practice management of weaners, including nutrition and health. Topics covered will include feed budgeting, the use of fodder crops and dual purpose crops, confinement and lot feeding, using genetics to best advantage and best practice sheep health.	<b>Geoff Duddy</b> Sheep Solutions, Oman Ama, QLD
10:30	<b>Measuring to Manage</b> There is currently a large amount of interest in the use of EID technology in sheep flocks. Hamish will discuss the potential benefits of using individual animal management to lift whole flock productivity, look at what is required to implement the technology and discuss the cost:benefit of investment in EID and associated infrastructure.	<b>Hamish Dickson</b> AgriPartner Consulting, Clare, SA
11:05	<b>MORNING TEA</b>	
11:30	<b>Your Sheep Health is Your Wealth (Cooma and Gunning)</b> Best practice sheep health management programs are easily justified in times of high commodity prices. Matt will discuss appropriate pre-lambing health treatments, along with best practice management strategies for tackling internal parasites, including Barber's Pole worm, flies, lice and other locally significant conditions.	<b>Matt Playford</b> Dawbuts, Camden, NSW
11:30	<b>Your Sheep Health is Your Wealth (Cowra)</b> Best practice sheep health management programs are easily justified in times of high commodity prices. Bruce will draw on his many years of local experience to discuss best practice management strategies for tackling internal parasites, including Barber's Pole worm, flies, lice and other locally significant conditions.	<b>Bruce Watt</b> Central Tablelands LLS, Bathurst NSW
12:05	<b>Extending Positive Price Cycles (Cooma &amp; Gunning)</b> With wool prices currently at all-time highs and strong lamb prices, Simon will look at how we can invest wisely now to either reduce long term cost of production, boost productivity, or create robust off-farm investments which can be valuable for long term wealth creation and managing future succession smoothly. He will also discuss key profit driver benchmarks and their priority order in different production systems.	<b>Simon Vogt</b> Rural Directions, Clare, SA
12:05	<b>Effective Integration of Livestock and Cropping (Cowra)</b> Simon will draw on an analysis of more than 100 multi-year farm benchmarking datasets from across southern Australia, which identified the key profit drivers in mixed enterprise (sheep and cropping) businesses. Simon's presentation will define the performance of the top 20% mixed enterprise producers and explore what it takes to execute mixed enterprise well. He will discuss key profit driver benchmarks and critical success factors to successfully integrate livestock and cropping enterprises.	<b>Simon Vogt</b> Rural Directions, Clare, SA
12:40	<b>Closing comments</b>	<b>AWI</b>
12:50	<b>LUNCH</b>	
2:00	<b>FINISH</b>	

## **ATTACHMENT 1.2 - Campaign for Wool update on broad wool activities**

The Campaign for Wool was initiated to raise awareness amongst consumers about the unique, natural, renewable and biodegradable benefits offered by the fibre. The initiative encourages collaboration between an international community of woolgrowers, major fashion designers, retailers, manufacturers and interior designers.

AWI is a major contributor to the Campaign, which has been instrumental in educating consumers about the versatility of wool and reconnecting them with its myriad uses.

An important part of the Campaign for Wool is the promotion of wool of all microns, including of a broader micron and crossbred wool. The campaign therefore continues to promote wool for the interior textiles sector – including bedding, carpets and furnishing – through a range of activities, some of which are highlighted below:

- The Campaign for Wool International Carpet & Rug Awards 2017 established in 2016 to highlight the diversity and breadth of quality in design, production, innovation and marketing across the carpet and rug sector.
- Wool Week (UK) - Wool Fusion: a pop-up installation on Baker Street in central London, which showcased some of the best fashion and functional apparel as well as wool interiors including furnishings, fabrics and flooring. The installation included a series of high impact photography and film by leading publication Wonderland, alongside the textured sensory experience of wool in the wide range of products on display. A program of workshops by artisans, talks from fashion and retail experts, and special events was held throughout the exhibition.
- The Wool B&B – a stunning creative installation showcasing living with wool and experiencing its many performance benefits to create the perfect wool home. Officially open for Wool Week in conjunction with Airbnb, The Wool BnB promoted the wonders of wool through specially hosted events and activities from craft sessions to a customised patchwork crochet class, a tailoring workshop with one of the most established Savile Row tailoring houses, and acoustic gigs in partnership with SofarSound, set in the wool insulated basement kitchen.
- Wool Floor Show - the only event in the trade show calendar that focuses entirely on wool flooring.
- In the area of insulation, there are a number of UK businesses, including mills, who are in contact with Fire Safety Europe to promote wool's fire retardancy attributes.

Further details on activities can be found at <http://www.campaignforwool.org>



### ATTACHMENT 1.3 - AWI smart tags update

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

The technology provides a combination of accelerometer (measuring the acceleration of a moving animal), proximity and position data to track the movement and activity of the animals and monitor the interactions between them in real time.

Key elements of the smart tag technology include:

- Flexible system to fit in different field conditions, internet coverage status and specific requirements.
- Location is obtained through trilateration, which is cheaper and less power-consuming than GPS.
- The system is made up of different components that all communicate with each other via wireless technology and are accessible while off the farm using the internet.
- The network created can be used to integrate sensors and other devices to collect more data from the paddock.
- Ear tags do not interfere with the shearing process.

The smart tags can be either an 'ear tag' that would last for several years on the sheep, or 'collar tag' that would be used temporarily on lambs while they are mothering up.

#### *How can smart tags be used?*

The tags could be used for several purposes and have already proven to be very useful for locating the animals (useful for woolgrowers who want to know for example where and when the sheep prefer to graze, drink and shelter, or simply to know where sheep are located) and monitoring the interactions between them (for woolgrowers to better understand maternal pedigree/mothering up).

AWI's objective is to provide a tool to remotely monitor the animals, detect welfare issues, improve reproduction management and collect data from the paddock. AWI anticipates that smart tags could be used for research and data analysis purposes to help woolgrowers optimise their flock's productivity. For example, in relation to flystrike management, wild dog alerts, grazing optimisation, health alerts and reproduction optimisation.

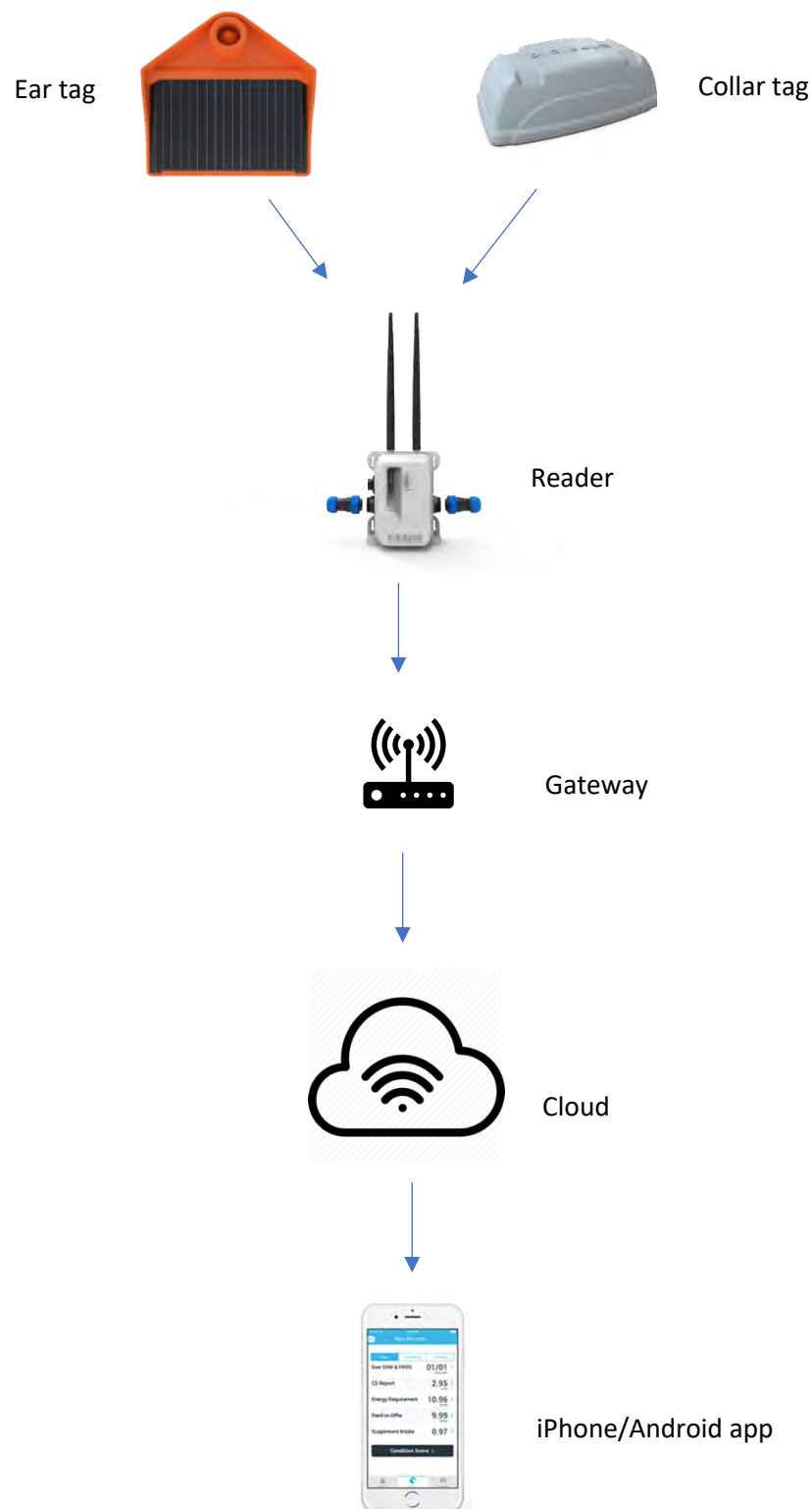
AWI has begun trials to add new functionalities to the smart tags. Using artificial intelligence, AWI is investigating different behaviours and relating them to welfare alerts (ie. predation, lice, worms, etc). AWI has also started numerous research projects with various universities to develop algorithms to detect heat (oestrus), lambing event and understand ram behaviour.

AWI is also working on commercialisation trials that are being used to prove out the durability, effectiveness and to obtain further research data for the ongoing development of new welfare insights. We will continue to develop the technology to

improve the ease of deployment and use, with the aim is to facilitate the introduction of this technology on Australian farms to specifically aid the woolgrower in the most cost-effective manner.

*How does the technology work?*

The ear and collar tags talk to the readers located in the paddock via Bluetooth. The readers send the data to the gateway and from there to the Cloud where they are safely stored and can be consulted in real time by an app.



## **2. ICC Members Report on R&D and Marketing Priorities**

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**TITLE:** ICC members report on their members' R&D and marketing priorities for AWI

**DATE:** 10 October 2018

Prior to every ICC meeting, committee members are asked to engage and consult with woolgrower members directly or through their state bodies to identify their key R&D and marketing priorities for AWI (i.e. reproduction, wild dogs, extension opportunities, shearing/wool handling, marketing in Australia etc).

Attachment 2.1 summarises the feedback AWI has received through consultation with the ICC and woolgrowers at various industry events and how it's been incorporated in AWI's Annual Operating Plan.

### **Attachments**

- **2.1** R&D priorities identified in AWI's consultation and integration into AWI's AOP

## ATTACHMENT 2.1

### R&D PRIORITIES IDENTIFIED IN AWI'S CONSULTATION AND INTEGRATION INTO AWI'S ANNUAL OPERATING PLAN

Priorities identified by ICC members	Priorities identified in other grower consultation	Integration of these priorities in AWI's Annual Operating Plan
<ul style="list-style-type: none"> <li>• Animal welfare</li> <li>• Flystrike</li> <li>• Wild dog and other vertebrate pest control</li> <li>• Diseases – ovine brucellosis, foot rot, OJD</li> <li>• Lice</li> <li>• Expanding LTEM program</li> <li>• Genetics and genomics</li> </ul>	<ul style="list-style-type: none"> <li>• Lamb survival</li> <li>• Reproduction</li> <li>• Weaner management and early weaning</li> <li>• Wild dogs – fencing, baiting</li> <li>• Diseases – ovine brucellosis, footrot</li> <li>• Paraboss – lice, worms and flies</li> <li>• Pain relief</li> <li>• Animal health and nutrition</li> </ul>	<p><b>Strategy: Healthy Productive Sheep</b></p> <ul style="list-style-type: none"> <li>• Program: Sheep Health &amp; Welfare</li> <li>• Program: Vertebrate Pests</li> <li>• Program: Reproduction</li> <li>• Program: Genetic Improvement</li> </ul>
<ul style="list-style-type: none"> <li>• On-farm technology</li> <li>• Ear tag technology</li> </ul>	<ul style="list-style-type: none"> <li>• On-farm technology</li> <li>• eIDs</li> <li>• Water monitoring</li> </ul>	<p><b>Strategy: Farm Automation &amp; Software Development</b></p> <ul style="list-style-type: none"> <li>• Program: Software Development</li> <li>• Program: Hardware Development</li> </ul>
<ul style="list-style-type: none"> <li>• WoolQ</li> <li>• Increase in shearer and wool handler numbers</li> <li>• Shed safety training</li> <li>• Wool harvesting alternatives</li> <li>• More wool classers and better training</li> <li>• Lower costs of production</li> <li>• Enticing young people into the industry</li> <li>• Improving grower consultation</li> <li>• Advice on clip preparation</li> <li>• Decline in wool production</li> </ul>	<ul style="list-style-type: none"> <li>• Shearing alternatives</li> <li>• Flexibility in clip preparation</li> <li>• Tools and guidance on yard design/infrastructure</li> <li>• Sheep handling efficiency and training</li> <li>• Training for new entrants in the industry</li> <li>• Wool Exchange Portal (WEP)</li> <li>• Business management</li> <li>• Supply chain and market knowledge</li> </ul>	<p><b>Strategy: Training &amp; Technology Uptake</b></p> <ul style="list-style-type: none"> <li>• Program: Wool Harvesting &amp; Quality Preparation</li> <li>• Program: Sheep &amp; Wool Management Skills</li> <li>• Program: Market &amp; Trade Intelligence</li> </ul>
<ul style="list-style-type: none"> <li>• Research into wool's eco-credentials</li> <li>• Fibre advocacy</li> <li>• Life Cycle Assessment (LCA)</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Feedbase education</li> <li>• Soil and pasture health</li> <li>• Feedlotting</li> <li>• Dry time feeding</li> <li>• Water security</li> </ul>	<p><b>Strategy: Feedbase &amp; Fibre Advocacy</b></p> <ul style="list-style-type: none"> <li>• Program: Fibre Advocacy</li> <li>• Program: Feedbase &amp; Eco Credentials</li> </ul>

<ul style="list-style-type: none"> <li>Educating the global supply chain on the Australian wool industry</li> <li>Research into impact of live export ban on wool industry</li> </ul>		<b>Strategy: Consultation</b> <ul style="list-style-type: none"> <li>Program: Shareholder</li> <li>Program: Stakeholder</li> </ul>
<ul style="list-style-type: none"> <li>Dominance of China</li> </ul>	<ul style="list-style-type: none"> <li>Chlorine in early stage processing</li> </ul>	<b>Strategy: Product &amp; Process Innovation</b> <ul style="list-style-type: none"> <li>Program: Process Development</li> <li>Program: Product Development</li> </ul>
<ul style="list-style-type: none"> <li>Providing training to retailers</li> </ul>	<ul style="list-style-type: none"> <li>Educating students on industry practices</li> </ul>	<b>Strategy: Education &amp; Extension</b> <ul style="list-style-type: none"> <li>Program: Consumer Education</li> <li>Program: Trade Education</li> <li>Program: Student Education</li> </ul>
<ul style="list-style-type: none"> <li>Marketing for superfine wool</li> <li>Marketing for broad wool</li> <li>Update on Campaign for Wool</li> </ul>		<b>Strategy: Fashion</b> <ul style="list-style-type: none"> <li>Program: Menswear</li> <li>Program: Womenswear</li> </ul> <b>Strategy: Global Campaigns</b> <ul style="list-style-type: none"> <li>Program: The Campaign for Wool</li> </ul>

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### 3. ICC Member Agenda Items

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**TITLE:** ICC member agenda items – Briefing request from AWI on issues raised prior to meeting.

**DATE:** 10 October 2018

Prior to the October ICC meeting, several ICC members sent through agenda items that they would like AWI to provide feedback on. AWI received the following items and provides the following response.

#### **AUSTRALIAN SUPERFINE WOOL GROWERS' ASSOCIATION**

##### **Wool Industry reclaiming the word “Wool” in advertising and labelling**

*Solving the issue of misrepresentation of fibres used in fabrics/yarn on labelling and in marketing. The issue was raised by Ian Gill and Susan Housego, Ian being a wool grower/clothing designer and Susan a wool grower/wool consumer who are frustrated by mislabelling on products stating “Wool” when in fact it is blended or synthetic. The idea is that the wool industry should be able to take ownership of the word “Wool” as France has done for Champagne.*

##### AWI feedback

The International Wool Textile Organisation (IWTO) on behalf of its members and the international wool industry has been monitoring and fighting the incorrect usage of ‘wool’ labelling for many years. The Australian national member of IWTO is the Federation of Australian Wool Organisations (FAWO) – WPA and AWI are both members of IWTO.

In relation to the incorrect usage of the Woolmark AWI can, and do, enforce misuse of the Woolmark certification marks. When suspected misuse is reported by AWI/The Woolmark Company staff, or by members of the public, we first undertake an internal investigation to uncover that product’s origin. If the product cannot be identified as being sourced from a Woolmark licensee, then the AWI legal team will send a formal cease and desist letter to the party using the mark. Further legal action can be taken if the other party is not cooperative, but in practice such escalation is rarely required.

We also protect the Woolmark certification marks through regular monitoring of trade mark registers around the world for trade mark applications bearing similarities to the Woolmark certification marks. Where such applications are identified, the AWI legal team will contact the applicant and seek the removal of the application, or if the applicant is not cooperative, formal trade mark oppositions can be lodged and further action taken as required.

AWI do not hold and would not be able to register a trade mark for ‘wool’ alone. The word “wool” itself is a descriptive word and is not inherently registerable as a trade mark. Unfortunately, unlike geographic indicators (eg. the word Champagne indicates

a product comes from the Champagne region of France), there are no similar protections for products classifications, such as textile varieties.

Under Australian law, labelling a product as wool when it is in fact synthetic is likely (depending on the exact claim or representation being made) to be considered misleading. In these circumstances, consumers should report the misleading claims to the ACCC.

### **Knit Extra project**

*Requested an update and revisiting of the Knit Extra Project*

#### AWI feedback

In response to woolgrower feedback requesting advice on insights from the supply chain, AWI has commenced investigations into fibre quality and price workshops. As a starting point, [Attachment 3.1](#) contains a report contracted by AWI, which identifies and reviews previous wool grower fibre quality education programs.

### **AUSTRALIAN WOOL GROWERS' ASSOCIATION**

#### **Update on EY review**

*Including change of board charter to 10-year director terms. Why has there been such poor communication to ICC re AWI's action on the EY review?*

#### AWI feedback

Please see the paper included at agenda item 5 of this pack: *AWI report back – WoolPoll 2018 and Review of Performance update*.

A verbal update will also be provided at the meeting with AWI inviting input and discussion from ICC members.

#### **Update on WoolPoll**

*Why AWI is publicly pushing 2% in the current climate of poor corporate governance and conflicts of interest by doing so. Why is AWI using wooltax to promote 2%? Why is AWI using outdated income budgets for Woolpoll?*

#### AWI feedback

AWI is recommending woolgrowers maintain the 2% levy to ensure the continuation of our work and allow for new projects to commence. AWI are focused on future-proofing while times are relatively good.

AWI have been upfront about the budget assumptions that underpin our modelling. Since late 2017 we've undertaken extensive modelling and forecasting, with more than six months of deliberations on what the market might do over the next three years, and a considered look back at what it has done in the past.

AWI budgeted on an EMI of 1700. At the time this decision was taken, the EMI was 1936. Right now, the EMI is around 2100, but this time last year, it was at 1532. Just like growers tend to be, the AWI Board is conservative, and chose a realistic EMI to set its budget. The EMI may be higher now, but this WoolPoll result doesn't come



into effect until 1 July 2019 - and lasts until 30 June 2022. A lot can happen in that time that can affect wool prices or production.

There is more than just the wool price that impacts on AWI's levy income. A major factor that can shift the dial is wool volume. Lamb slaughterings are the highest in decades as drought-affected farmers make tough decisions. It takes time to rebuild a sheep flock, and with lambing percentages forecast to be down next season, wool production will be affected too.

If the levy rate is reduced, and the drought reduces wool volumes as forecast, then the only thing securing research, development and marketing investments for the next three years is an EMI that keeps climbing. While AWI want nothing more than for that to be the case, we're cautious in putting too much faith in a market which has historically proven itself volatile. AWI want to safeguard woolgrowers' investments and build resilience into the budget, that's why we're recommending 2%.

Over the past couple of years, AWI has focused on introducing new - and improving existing - communications channels for woolgrowers. Following feedback from woolgrowers and industry representative groups around more communication of AWI's activities through traditional media, AWI also began a weekly advertorial in the Fairfax weeklies. This provides a good balance between bought and earned media. AWI and the WoolPoll Panel have used this communication channel in the WoolPoll campaign to raise awareness about WoolPoll, to urge woolgrowers to check their levy entitlement letter, to encourage woolgrowers to vote, and to communicate AWI's levy rate recommendation. It is a regulatory requirement that AWI make a levy recommendation and provide reasons for the recommendation.

AWI has been highly cooperative throughout the Review of Performance (ROP) process, producing over 1,300 documents for EY to review. AWI is focused on ensuring transparency and information flow with woolgrowers and industry throughout the entire implementation period. To achieve this, on 10 September AWI launched its Review of Performance Implementation Portal to provide transparent reporting on its progress implementing the 82 recommendations. As part of the voter information kits, woolgrowers received a summary of the ROP, along with the executive summary from the ROP report. Woolgrowers have the opportunity to review this information, along with AWI's reporting on through the Implementation Portal on [rop.wool.com](http://rop.wool.com) and can use this information to make an informed decision with their WoolPoll vote.

**Begin discussions to end the terms used such as AWI "shareholders" as this is incorrect and misleading.**

#### AWI feedback

AWI requested clarity on this issue before the meeting but did not receive a response. AWI suggests this matter be discussed at the ICC meeting.

Consistent with the Wool Services Privatisation Act, the Statutory Funding Agreement, AWI's Constitution and the Corporations Act, there are three different groups of wool levy payers:

1. Levy payer: any producer who has paid any amount of wool levy.

2. Eligible levy payer: those producers who have more than \$100 in wool levy in the previous 3 financial years. These woolgrowers are 'eligible' to vote in WoolPoll and to become AWI shareholders.
3. AWI shareholder: those eligible levy payers who have elected to become shareholders of AWI. These woolgrowers are able to vote at AWI's AGM.

### **More decisive power to ICC**

*What are the improvements to the ICC, as quoted in the mailout to woolltax payers?*

#### AWI feedback

In AWI's report to growers "Wool is your choice", it references AWI's work to improve the ICC to ensure AWI continues to receive feedback on woolgrowers' priorities and can report back on its R&D and marketing activities. Detail of these improvements are outlined in AWI's 2016/17 Annual Report.

As reported in the 2016/17 Annual Report, AWI has been focused on improving the effectiveness of its consultation with woolgrower representative groups over the past few years. In June 2016, AWI undertook extensive work to develop a new Consultation Plan, seeking feedback from the Australian Government and industry representative bodies through AWI's Woolgrower Industry Consultative Committee (ICC).

AWI subsequently made a number of changes to improve its consultative process including the appointment of a new Corporate Affairs Manager and proactive and formal re-engagement of state farming organisations. AWI also worked on improving the ICC to ensure it continues to meet the expectations of members and the business needs of AWI. The changes focused on improving the flow of information to and from the ICC to improve the transparency of reporting including; clarifying the purpose of the ICC to maximise its value, that is, for industry representatives to provide feedback on their members priorities and AWI to report back on its activities; more comprehensive the briefing pack and minutes, as requested by ICC members; inviting more grower production groups as guest participants; and publication of briefing packs and meeting records on AWI's website to enhance transparency of the ICC. Recent improvements have included, the development of a new briefing pack for members to improve the transparency of AWI's reporting, and inviting guest participants from other woolgrower representative organisations, such as ASHEEP, Birchip Cropping Group or Mallee Sustainable Farming Group.

In response to continued industry concern, and in order to implement the recommendations from EY's Review of AWI's Performance, AWI is looking to develop a new consultation model and are seeking industry advice and feedback on elements to be included. AWI want to ensure that the new model is more effective, respectful and meaningful; more independent; with greater regional/grass roots focus; and with clearer purpose, roles and responsibilities for all stakeholders involved.

*What are the payments to individuals re ICC, as quoted in the 2016/17 AWI Financial statements?*

#### AWI feedback

The project listed in AWI's 2016/17 Annual Report as "2016/17 AWI ICC and Stakeholder Consultation" represents a combination of activities, not simply the ICC. The individuals listed as 'providers' do not pertain to the ICC activities in the project, but to the stakeholder consultation activities in the project. AWI does not contract any external providers to deliver the ICC.

### **Update on new research projects being funded by AWI**

#### AWI feedback

In every Annual Report, AWI provide a project list for the financial year detailing the key providers and investment value for all projects over \$125,000. AWI's 2017/18 Annual Report is due to woolgrowers in October 2018, which will provide a list of the projects in 2017/18.

### **New public awareness marketing campaigns defending woolgrowers' reputations in consumer markets in EU and USA**

#### AWI feedback

AWI requested clarity on this issue before the meeting but did not receive a response.

AWI/The Woolmark Company's marketing campaigns focus on educating the global supply chain and consumers on the benefits of wool as a breathable, natural, renewable, and biodegradable fibre. A new global consumer campaign - Live & Breathe – educates the young generation about the technical performance of Australian Merino wool, with the aim of tapping into the activewear market – the fastest growing sector of the \$1.7 trillion global textile business - to drive the purchase of wool apparel and footwear products and put wool front of mind.

Notwithstanding, for over ten years AWI have been working closely with brands, retailer associations and Non-Government Organisations (NGOs) in the European and American supply chains to ensure they are properly informed on the realities of the Australian wool industry with the aim of securing international support for the industry.

Our work with these stakeholders includes an annual delegation with a woolgrower and researcher to provide an update on the latest R&D developments in the industry, connection with domestic partners and ongoing guidance, training and support.

Feedback from the supply chain is that they see themselves as business partners with growers, they love using wool and want to use more of it because it makes good business sense.

Key themes from this work over the years has seen:

- The discussions and understanding of animal husbandry practices have evolved.
- It's not just about wool, but about Corporate Social Responsibility on the whole, including environmental impact, fair trade, ethical sourcing, worker conditions and much more.

- A range of pressures drive decisions down the supply chain, including commercial and legislative.
- Traceability and provenance have become one of the main drivers for supply chain partners globally, and the need to be able to verify their supply chain.
- There is strong support for the National Wool Declaration as a key source of traceability and encourage woolgrowers to declare their wool.
- They preferentially source non-mulesed and pain-relief wool, but want it verified.

AWI recently presented on its global supply chain engagement program at AWI's 2018 Breech Flystrike RD&E update on 17 July. A copy of the presentation can be found at [Attachment 3.2](#). ICC members can also hear firsthand from brands and retailers on Episode 46 of The Yarn podcast available at <https://www.wool.com/about-awi/the-yarn-podcast/>

## **WOOLPRODUCERS AUSTRALIA**

### **The use of the Woolmark logo on broad wool products – is this continuing?**

#### AWI feedback

The Woolmark licensing program covers a range of products including apparel, interiors, and apparel care items.

A verbal update will be provided at the meeting on the future directions being investigated in the Woolmark licensing program

### **Are AWI conducting any work on shearing shed design to achieve optimal WH&S outcomes?**

#### AWI feedback

AWI is currently undertaking a project looking to determine best practice shearing shed design, which is nearing completion. A brief on the project can be found at [Attachment 3.3](#).

## **Attachments**

- **3.1** Fibre quality workshops review
- **3.2** AWI's Breech Flystrike RD&E Forum - Supply chain engagement presentation
- **3.3** Woolshed Design and Consultation project update

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## Milestone Report

### Fibre Quality and Price Workshop

Project number ON-00522  
Contract Number 4500011618

Date: 4 September 2018

#### Milestone and/or Deliverable

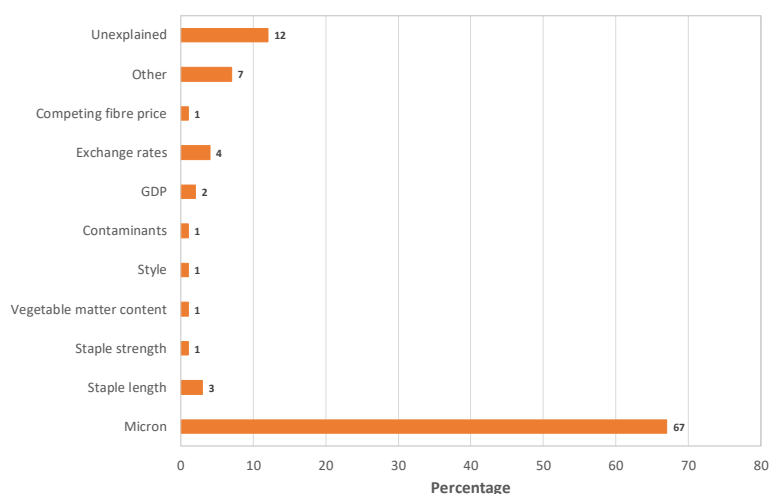
##### Fibre quality workshop – review

##### 1. Identify and review previous wool grower fibre quality education programs

#### Introduction

##### The importance of wool quality

The physical quality attributes of raw wool governs the method of processing (worsted versus woollen) as well as the quality and potential uses of the end product (McGregor *et al.* 2016). As a result, the commercial price of raw wool is determined to a large extent by wool quality attributes particularly fibre diameter (Figure 1). However, other variables including sale factors (location, day, season), storage centre, mulesing status, fleece preparation type<sup>1</sup>, GDP in major markets, currency exchange rates, retail clothing trends, prices of competing fibres and media attention on ethical production practices also affect clean price (Nolan 2012).



**Figure 1. Contribution of characteristics of wool lots to variation in price.**

Source: Nolan (2012)

<sup>1</sup> IWTO Wool Preparation Categories: P Classed grower lot; Q Classed Bulk class lot; M Objectively matched lot; B Bulk class lot; D Other grower lot and I Interlots.,

Wool quality can be either objectively measured or subjectively assessed. The key fibre quality attributes affecting Merino wool processing performance and apparel textile quality are fibre diameter, fibre length, staple strength, colour, and vegetable matter (Table 1) due to their relative impact on the prices paid for raw wool (Nolan 2012) and their influence on early (International Wool Secretariat and CSIRO Australia 1996; TEAM-3 Steering Committee 2004) and later stage processing (Hunter 1980; CSIRO Division of Wool Technology and International Wool Secretariat 1994; Lamb 1997). Other subjectively assessed traits including style and various faults (brands, unscourable colour, dermatitis, cotts, stains) described by the AWEX-ID (Australian Wool Exchange 2011) can also have an impact on price (Nolan 2012) and need to be considered in any on-farm decisions related to fibre quality.

**Table 1. The importance of fibre quality attributes to wool processing.**

Source: Adapted from Preston *et al.* (2015)

Fibre quality attributes	Processing significance	Processing stage	
		Early	Late
Fibre diameter	Contributes to hauteur, determine yarn limits (and fabric mass per unit area), affects next-to-skin comfort and fabric softness	****	****
Vegetable matter	Impact on carding and combing yield, contributes to hauteur, CVH and romaine	***	**
Yield	Quantity of raw fibre	****	***
Length	Major contributor to hauteur, CVH and romaine	***	*
Strength	Major contributor to hauteur, CVH and romaine	***	***
Colour	Impact on dyeing ability	**	**
Suint/moisture content	Impact on wool colour	**	**
Dogginess	Commercial acceptability	**	**
Stains	Impact on wool colour	**	**
Handle	Impacts on fabric softness and feel	*	**
Crimp	Impacts on hauteur, CVH and romaine, yarn evenness and fabric handle	*	*
Staple tip formation	Impacts on staple length, hauteur, CVH and romaine and dyeing ability	*	*

#### Opportunities to improve wool fibre quality on-farm

Fibre quality varies between production environments (high rainfall, Mediterranean and non-seasonal rainfall), production zones (high rainfall, sheep cereal and pastoral), category or type of wool grown (ultrafine, superfine, fine, medium or broad) and between different classes of sheep. As a result, the ideal combination of fibre quality traits that will optimise wool price vary significantly on a national, regional and local basis.

While there are many strategies available to manipulate fibre quality on-farm (Table 2), their applicability and importance will vary both between farm enterprises and within a single enterprise (i.e. breeding ewes, wethers and weaner sheep). In addition, those farm businesses that consist of more than one operation (i.e. beef and sheep grazing, cropping and grazing, wool and sheepmeat) must consider the requirements of each to optimise the productivity, profitability and sustainable of their entire enterprise.

**Table 2. Means of manipulating fibre quality on-farm.**

<b>Key area</b>	<b>Strategies for manipulating wool fibre quality</b>
Breeding and selection	<ul style="list-style-type: none"> <li>- developing a breeding objective</li> <li>- designing and implementing an effective genetic improvement program               <ul style="list-style-type: none"> <li>• selecting a bloodline (ram) source</li> <li>• ewe culling and selection strategies</li> </ul> </li> </ul>
Grazing management and nutrition	<ul style="list-style-type: none"> <li>- benchmarking genetic performance</li> <li>- grazing system (set stocking, rotational grazing)</li> <li>- paddock selection and allocation</li> <li>- pasture establishment, improvement and maintenance               <ul style="list-style-type: none"> <li>• target FOO levels</li> <li>• minimise grass seeds and dust</li> </ul> </li> <li>- feed budgeting               <ul style="list-style-type: none"> <li>• manage variation in liveweight/body condition</li> <li>• macro and mineral nutrition</li> </ul> </li> </ul>
Animal husbandry	<ul style="list-style-type: none"> <li>- optimal flock age structure</li> <li>- time of lambing</li> <li>- time and frequency of shearing</li> <li>- use of wool coats</li> <li>- precision sheep management systems</li> <li>- provision of housing</li> <li>- incisor wear and loss</li> </ul>
Animal health	<ul style="list-style-type: none"> <li>- parasite control (internal and external)</li> <li>- managing the incidence of fleece rot and foot rot</li> <li>- foot abscesses</li> </ul>

### Woolgrower fibre quality education programs

Since 1994 13 state based or national wool grower extension programs related to wool quality have been developed and delivered in Australia (Appendix – Table A1). These workshops varied in their content, mode of delivery, relevance to fibre quality, on-farm application as well as the ease of integrating the information into flock breeding, selection, animal management and husbandry decision making. The workshops group into the following four categories:

- i. understanding and awareness of the wool value chain
- ii. marketing the wool clip
- iii. breeding and selection
- iv. grazing and nutritional management

#### Understanding and awareness of the wool value chain

The development and delivery of the Topmaking, Quality Management for Woolgrowers (QMW), Wool Market Awareness and Genes to Suit workshops coincided with the increasing use of additional length and strength measurements on wool sale lots. This followed the development and commercial use of the TEAM (Trials Evaluating Additional Measurement) formulae which provided an important link between the processing performance of a sale lot and its raw wool fibre attributes (TEAM-3 Steering Committee 2004). As a result, throughout the wool industry an increasing emphasis was placed on balancing the quality attributes of wool with fleece weight rather than the previous sole focus on wool production. At the same time, there was increasing interest among woolgrowers in retaining ownership of their wool beyond the farm gate to capture perceived higher returns at the topmaking, yarn, fabric and garment stages of processing (International Wool Secretariat 1997).

These four workshops aimed to increase wool grower understanding of global textile markets with a focus on apparel and the impact of factors beyond the farm gate on the demand for wool and ultimately the prices received by wool producers. Participants were introduced to the key factors affecting demand for wool at each stage of the wool value chain, how those factors impacted on the demand for wool and the importance of fibre quality traits at each stage of processing.

There were some synergies between these four workshop packages. For example, the Wool Market Awareness workshops were trailed in Victoria in 1996 and some aspects were adopted and modified to fit within the Fabric to Yarn and Yarn to Farm modules of the QMW workshop which was then delivered more widely throughout Victoria. Similarly, the Genes to Suit program in NSW was an updated and amended version of some sections of the Topmaking Workshop.

The Topmaking workshop focused on the relationship between the fibre quality attributes of raw wool and early stage processing up to topmaking. It introduced participants to variation in fibre quality both within and between sale lots, prediction of processing performance using the TEAM equations and the use of fibre specifications and price limits when constructing mill consignments. It concluded with a simulated wool auction where participants took on the role of wool buyers and were required to compete against each other to purchase enough sale lots from a supplied auction catalogue to fill a top order to the stipulated specification and price limit.

The Wool Market Awareness and QMW workshops ventured further along the wool value chain and introduced participants to yarn and fabric specifications with the aim of demonstrating the relative importance of various raw wool fibre attributes to later stage processing (i.e. yarn and fabric). Participants were provided with fabric, yarn and top samples during hands-on practical sessions to initially assess and then compare their assessments against provided measured data (fibre diameter distribution, yarn count and hauteur).

These workshops were free to attend and presented by International Wool Secretariat staff (Topmaking workshop) and state government department staff (Wool Market Awareness, Genes to Suit and QMW). Development and delivery of the Topmaking workshop was funded by the International Wool Secretariat and presented in partnership with wool brokers in each state (the brokers facilitated workshop logistics – inviting participants, location and catering). Wool Market Awareness was developed as a partnership between the Department of Agriculture Western Australia and Muresk Institute of Agriculture with federal funding from the Department for Primary Industries and Energy and delivery was supported by the Ministry of Primary Industries in Western Australia.

Whilst they promoted a greater understanding and awareness of the global apparel market and the importance of raw wool fibre attributes to each stage of processing, these four workshops did not include a component to assist woolgrowers to identify whether any changes were required to their wool enterprise to better meet the requirements of the wool value chain nor any strategies to implement change.

#### Marketing the wool clip

The overall aim of these workshops, Making \$\$\$ and \$ense out of marketing wool<sup>2</sup> and Market Focused Wool Production (Module 2 of Making More from Sheep, MMFS), was to assist producers to better understand the characteristics of their wool clip to make more informed decisions regarding marketing their product. Making \$\$\$ and \$ense included a clip analysis component where participants

<sup>2</sup> Making \$\$\$ and \$ense out of Marketing Wool was included as one of the 8 QMW modules and presented in Victoria (Appendix - Table 1A)



benchmarked their individual clip details against others in the group. They were also stepped through a procedure to calculate the cost of production and set a reserve price for their clip. These exercises allowed participants to identify potential areas for change to minimise the discounts applied to various wool faults. In addition, a range of wool marketing and selling options were outlined. Other cost of production workshops in various forms were conducted in all states by state government department staff as well as wool brokers.

Market Focused Wool Production<sup>3</sup>, Making More From Sheep Module 2, expanded on the Making \$\$\$ and \$ense material by outlining the impact of fibre characteristics on price and discussed short- and long-term factors impacting on demand for wool. Three procedures introduced key decisions, critical actions and benchmarks to: i. choose the type of sheep and wool that best suited a farm's physical characteristics, management regime and production environment; ii. produce harvest and prepare wool for sale with a customer focus, and iii. maximise returns from wool sales. Tools and guidelines were introduced to assist participants to identify potential areas of change on-farm.

The Making \$\$\$ and \$ense out of Marketing wool workshops were free to attend and delivered by state government departments. The MMFS program was developed and funded by Australian Wool Innovation Limited (AWI) and meat & Livestock Australia (MLA) and the project engaged experienced event deliverers to reduce the risk of poor delivery (Wagg and Howard 2017). A national coordinator developed MMFS resources, organised supporting functions and oversaw regional implementation by state coordinators who managed event delivery by both private and state government providers. MMFS was one of the first national programs to introduce a 'user pays' funding model with three categories of events (Wagg and Howard 2017):

- Category A (awareness) – MMFS funded up to 100%, were generally free or cost up to \$30 per participant
- Category B (knowledge and skills) – MMFS funded up to 50%, participants contributing approximately \$50
- Category C (adoption) – MMFS funded up to 20%, participants paying up to \$1,850 for a series of activities

#### Breeding and selection

The Wool Sheep Breeding & Selection workshops were the first dedicated 'train-the-trainer' program for the wool industry and were funded by the International Wool Secretariat (content development and delivery). These workshops were targeted at vocational education and training (VET) professionals initially, but later workshops included both private and state government extension providers. The initial workshop in 1994 introduced participants to consumer, processor and producer requirements. It covered best practice principles, benchmarking and quality improvement and development of breeding objectives. Subsequent workshops introduced participants to applied genetics principles and various tools developed by NSW Agriculture's Merino Breeding Group. A feature these workshops were a series of hands-on practical exercises based on applied genetics principles including setting a market focused breeding objective, ram and ewe selection and changing a stud source. There was no charge to participants for attending the Wool Sheep Breeding & Selection workshops.

<sup>3</sup> This was one of the 12 modules in Making More from Sheep (MMFS) developed and funded by AWI and MLA.

The Premium Quality Wool CRC's<sup>4</sup> Access to the Experts workshop was the first time video conferencing was used nationally as an extension strategy and was heralded as a new development in wool education. Participants were each provided with a comprehensive set of presenters notes as well as key scientific papers and technical reports relevant to each of the four topics. Participants were encouraged to read the presenter notes prior to each session and to use the presenter notes, either wholly or in excerpt form, in their own interactions with clients or students. Each of the four sessions began with a facilitated discussion to compare queries and ideas with the other participants at each site before the 'Experts' presented their material live via video conference. This allowed participants to explore the concepts, new ideas and results directly with the 'Experts'. An important outcome of the Access to the Experts program was the creation of networks of people across Australia who were active in the various fields to facilitate future contact and interaction. Development and delivery of the program was funded by the Wool CRC, there was no cost to participants.

The Merino Breeding & Selection – A commercial focus workshops were effectively an extension of the Wool Sheep Breeding & Selection workshops specifically targeted at commercial wool producers. They were developed and delivered as part of the Rampower technology transfer program funded by The WoolMark Company. These workshops featured a suite of hands-on sheep selection exercises involving both rams and ewes. Delivery was undertaken by state government providers with no cost to producers.

Gain from Genetics, MMFS Module 9, was designed to assist commercial sheep producers to capture the benefits that genetic improvement offered to their business. The module outlined an effective approach to implementing genetic selection in a commercial flock from selecting the right genetics to contribute to sheep enterprise productivity, appropriate ram selection and achieving ongoing genetic improvement. As per MMFS Module 2 (see above), tools and guidelines were introduced to assist participants to identify potential areas of change on-farm and the same user pays funding model applied.

The On-farm fibre measurement (OFFM) workshops and associated training manual (Atkins *et al.* 2004) sought to improve wool grower profits through skill development and knowledge related to the use of OFFM to implement their sheep selection and breeding program. The key focus of the OFFM program was within flock variation in fibre diameter and the opportunity to quantify that variation using various technologies to make sheep selection decisions, assist in allocating fleeces at shearing into lines with differences in average fibre diameter that could attract premiums in the market place as well as assist with flock management. Development and delivery of the OFFM program was funded by AWI, Sheep CRC I<sup>5</sup> and the International Fibre Centre. The program included a train-the-trainer component for private and state government providers to ensure consistency in the advice provided to wool growers and a Quality Assurance scheme for OFFM instrument operators.

The Precision Sheep Production (PSM) Masterclasses and webinars extended the OFFM concept from fibre diameter to other traits including fleece weight, staple strength, growth rate and reproduction (Atkins *et al.* 2006). The PSM program was designed to train private and state government service providers and wool producers in precision management and the role of electronic

<sup>4</sup> The CRC for Premium Quality Wool was established in July 1993 with the aim of improving the quality and competitive position of Australian wool in the world textile market. It was wound up in 2000.

<sup>5</sup> The Cooperative Research Centre for Sheep Industry Innovation (Sheep CRC I) was established in July 2007 to undertake a program of research and delivery of innovation to the Australian sheep industry. The role of this CRC was to facilitate transformation of the sheep industry through making sheep easier to manage, developing the production and processing of meat and wool to meet increasing consumer expectations and increasing the uptake of new technologies by the industry.

identification systems. The Masterclass concept explored the opportunities and strategies that could be applied in wool and sheep meat flocks to increase profit and included hands-on practical sessions in the use of various hardware and software applications to adopt PSM on-farm. On-going technical support was provided to Masterclass participants to assist with overcoming any hardware, software and data handling issues that arose during adoption on-farm. Development and delivery of the PSM program was funded by Sheep CRC I with on-going technical support supplied by various NSW Department of Primary Industries staff via their in-kind contribution to Sheep CRC I. There are several private PSM providers across Australia<sup>6</sup> who run successful businesses either assisting their clients to implement PSM systems or are contracted to implement and operate PSM systems for their clients on an on-going basis.

In terms of fibre quality, these breeding and selection workshops were primarily focused on fibre diameter. This was a response to the high micron premiums<sup>7</sup> for finer wool in the mid to late 1990's which continue, albeit to a lesser extent to the present day. While other fibre quality traits were considered their inclusion was dependent on the prevailing premiums and discounts at the time.

#### Grazing and nutritional management<sup>8</sup>

The primary focus of both the Prograze™ and Lifetime Ewe Management (LTEM) workshops is improved nutritional management of sheep to improve production, particularly reproductive performance. Both workshops are based on a small group model to develop producer's practical skills in pasture and animal assessment. Prograze™ was initiated by NSW Agriculture as a collaborative project between state government departments and MLA. It deals specifically with the interaction of pasture with livestock, the impact each can have on the other and encourages participants to be flexible in their management based on prevailing circumstances. Segment 4 of Prograze™, Sheep Breeding Package, briefly covers the impact of grazing management on wool production and fibre quality (fibre diameter, staple strength). Prograze™ continues to be delivered throughout Australia primarily by stage government providers, such as Local Land Services in NSW, with participants paying a fee to attend.

LTEM is a hands-on training program for wool and lamb producers based on outcomes from the lifetimewool project<sup>9</sup> which developed management guidelines for Merino ewes based on an understanding of the impacts of ewe nutrition, at different stages of the reproductive cycle, of the ewe and her progeny over their lifetime (Trompf *et al.* 2011b). In terms of wool quality, LTEM highlights the effect of improved ewe nutrition during pregnancy and lactation on fleece weight, fibre diameter and staple strength of Merino ewes and her progeny's fleece weight and fibre diameter. LTEM is based on professional facilitation of small groups of producers in local areas, practice by doing, on-farm demonstration and teaching others (Trompf *et al.* 2011b). While comprehensive evaluation of LTEM graduates reveals improvements in stocking rates, ewe mortality, weaning rates and lambs weaned per ha (Trompf *et al.* 2011a; Trompf *et al.* 2011b) no change in fibre quality resulting from the LTEM program has been quantified. LTEM development was funded by AWI with delivery coordinated via

<sup>6</sup> <http://www.sheepgenetics.org.au/Service-providers>

<sup>7</sup> A micron premium is a measure of the relative value of fibre diameter and fleece weight in the wool market. For example, a 15% micron premium means that the producer would be paid 15% more for wool that is one micron finer. To achieve an equivalent increase in income by increasing fleece weight, fleece weight would need to be increased by 15%.

<sup>8</sup> EverGraze More livestock from perennials is another national grazing management program but was primarily focused on improving reproductive performance.

<sup>9</sup> <http://www.lifetimewool.com.au>

Rural Industries Skill training (RIST). The full cost per participant is \$2,200 with AWI provided a subsidy for eligible woolgrowers of \$1,077 per participant<sup>10</sup>.

### Ad hoc workshops and fibre quality presentations

In addition to the structured fibre quality workshops and extension programs listed in Table 2, there were numerous ad hoc workshops, seminars and field days related to wool fibre quality presented across the country by various state departments of agriculture, commercial entities (Michell Wool, AWEX and AWTA), research organisations (CSIRO, Wool CRC, Sheep CRCs, Producer Research Groups – Holbrook, Central West Farming Systems, Monaro Grazing Systems, MerinoLink etc) professional associations ( Australian Society of Animal Production - ASAP Federal and local branches, Association for the Advancement of Animal Breeding and Genetics – AAABG, Grasslands Society etc), brokers and consultants. The subject matter ranged from:

- breeding and selection:
  - setting a breeding objective and using breeding values via WoolPlan, Rampower, Merino Benchmark and other predecessors of MerinoSelect
  - genetic improvement of Merino sheep via various Merino resource flock open days, Australian Merino Sire Evaluation Association (AMSEA) field days, ewe hogget competitions and wether trials
  - identifying rams to best match your breeding objective using RamSelect
  - changing ram source to improve wool quality
- grazing management and nutrition
  - improving staple strength of breeding ewes and weaner sheep via the CRC for Premium Quality Wool roadshow in the late 1990's
  - reducing fibre diameter
  - managing vegetable matter and dust contamination
- animal husbandry
  - time of lambing to modify position of break and improve staple strength
  - time and frequency of shearing to manage staple strength position of break, vegetable matter content and staple length
  - parasite control (internal and external)
- economics of wool production and marketing options
  - cost of production
  - wool futures and options
  - marketing alliances

### Conclusions

Several wool fibre quality workshops have been developed and delivered to Australian sheep producers since 1994. They have varied in their content, length, method of delivery and relevance to on-farm decision making regarding improving fibre quality. There has been no single extension strategy that solely targeted fibre quality and provided wool growers with the means to benchmark their current wool clip in terms of fibre quality and identify potential strategies to implement to optimise returns and improve productivity and profitability.

<sup>10</sup> <https://rist.edu.au/lifetime-ewe-management.php>

## Acknowledgements

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## References

- Atkins KD, Casey AE, Graham RP, Lollback ML, Pope CE (2004) Making money from measurement. A practical guide to assist woolgrowers make the best use of On-Farm Fibre Measurement. NSW Department of Primary Industries, Orange NSW.
- Atkins KD, Richards JS, Semple SJ (2006) 'The application of genetic principles to precision production systems in sheep, 8th World Congress on Genetics Applied to Livestock Production.' Belo Horizonte, MG Brazil, 13-18 August 2006.
- Australian Wool Exchange (2011) AWEX-ID non measured characteristics v3.3. Australian Wool Exchange, Sydney NSW.
- CSIRO Division of Wool Technology and International Wool Secretariat (2004) Woolspec 94 RA Rottenbury, KA Hansford, JP Scanlan (Eds) CSIRO Division of Wool Technology, Sydney NSW.
- Hunter L (1980) The effects of wool fibre properties on processing performance and yarn and fabric properties. In '6th Quinquennial International Wool and Textile Research Conference. pp. 133 - 193.
- International Wool Secretariat (1997) Wool Marketing and Productivity. A guide for Wool Grower Groups. International Wool Secretariat, Melbourne Victoria.
- International Wool Secretariat and CSIRO Division of Wool Technology (1996) Top-Tech '96 K Hansford, B Harrowfield, C Sage (Eds) CSIRO Division of Wool Technology, Geelong Victoria.
- Lamb PR (1997) Wool quality for spinners. CSIRO Division of Wool Technology, Belmont, Victoria.
- McGregor BA, de Graaf SP, Hatcher, S (2016) On-farm factors affecting physical quality of Merino wool. 1. Nutrition, reproduction, health and management. *Small Ruminant Research* **137**, 138-150.
- Nolan E (2012) The economic value of fleece wool attributes. Report prepared for Australian Wool Innovation Limited. Faculty of Agriculture and Environment. The University of Sydney, Sydney NSW.
- Preston JWV, Hatcher S, McGregor BA (2015) Fabric and greasy wool handle, their importance to the Australian wool industry: a review. *Animal Production Science* **56**, 1-17.
- TEAM-3 Steering Committee (2004) TEAM-3 Processing Trial - Final Report. No. Report 02.
- Trompf JP, Gordon DJ, Behrendt R, Curnow M, Kildey LC, Thompson AN (2011a) Participation in Lifetime Ewe Management results in changes in stocking rate, ewe management and reproductive performance on commercial farms. *Animal Production Science* **51**, 866-872.
- Trompf JP, Thompson AN, Gordon DJ, Kildey L, England J, Curnow M (2011b) Lifetime Ewe Management. AWI & RIST, Hamilton, Victoria.
- Wagg M, Howard K (2017) Making More From Sheep Report. Development, implementation and evaluation of the project 2005 - 2016. Australian Wool Innovation Limited and Meat & Livestock Australia, Sydney NSW.

## Appendix

**Table A1. Wool fibre quality workshops for Australian wool producers 1994 to the present day.**

Title	Organisation	Years	Location	Duration	Content
Prograze™	NSW Agriculture and Meat & Livestock Australia	1994 – present	Nationally	8 x 4.5 hour sessions	Segment 4 'Sheep Breeding Package' of the Prograze™ program briefly discusses the effect of grazing management decisions on wool production and quality. It used a GrassGro simulation to highlight the relationships between pasture intake and changes to bodyweight, wool growth per day, average fibre diameter and staple strength over a 12-month pasture growth cycle.
Wool Sheep Breeding & Selection	NSW Agriculture & International Wool Secretariat	1994 - 1998	Held in Orange but open to VET trainers nationally	2 ½ days	<p>The first 'train the trainers' type workshop for the wool industry. Vocational Education Trainers (VET) from a range of institutions (agricultural colleges, TAFE, universities) attended biannual workshops. The content of the workshops was primarily focused on advanced Merino breeding and selection principles and included:</p> <ul style="list-style-type: none"> <li>- consumer, processor and wool producer requirements from wool</li> <li>- the latest in wool research and development</li> <li>- wool market prices and trends, premiums and discounts</li> <li>- best practice principles and tools for genetic evaluation</li> <li>- breeding objectives</li> <li>- sheep selection</li> </ul> <p>In terms of wool quality, the major focus of these workshops was on fibre diameter.</p>
Topmaking Workshop	International Wool Secretariat	1995 - 1998	Nationally	1 ½ days	<p>Overview of how decisions made by consumers, retailers, manufacturers and processors impact on the business of growing wool. Topics included:</p> <ul style="list-style-type: none"> <li>- the clothing business cycle</li> <li>- wool in the global wool market</li> <li>- variation and raw wool processing</li> <li>- making up a mill consignment</li> </ul> <p>These workshops featured a simulated wool auction, where participants were provided with a top specification and a sale catalogue and were required to compete against each other to purchase sufficient quantity of wool with the required specification to fill the top order.</p>

Quality Management for Wool Growers	Agriculture Victoria/WRIST (Wool and Rural Industries Skill Training Centre, now RIST)	1995- 1998	Victoria	Series of 8 workshops	<p>The workshop series comprised the following modules:</p> <ol style="list-style-type: none"> <li>1. Processing tour (2 days)</li> <li>2. Fabric to yarn (4 hours)</li> <li>3. Yarn to farm (4 hours)</li> <li>4. Sheep's back to bale (4 hours)</li> <li>5. Making \$\$\$ and \$sense out of Marketing Wool (4 hours)</li> <li>6. Sheep breeding and selection (1 day)</li> <li>7. Increasing productivity &amp; improving wool quality (4 hours)</li> <li>8. Planning for the future (4 hours)</li> </ol>
Wool Market Awareness	Agriculture Western Australia	1995 - 1998	Western Australia	1 day	<p>Promoted an understanding and awareness of what happens to wool clips post farm gate. The workshop covered the following topics:</p> <ul style="list-style-type: none"> <li>- world wool markets</li> <li>- fabric qualities</li> <li>- wool processing</li> <li>- yarn qualities</li> <li>- top qualities</li> </ul> <p>These workshops combined presentations with practical exercises. Workshop participants were provided with a range of woven or knitted fabric samples, yarn and top samples to compare and analyse.</p>
Genes to Suit	NSW Agriculture	1997 - 1999	New South Wales	½ day	<p>An awareness session based on the Genes to Suit publication. Topics included:</p> <ul style="list-style-type: none"> <li>- Consumers and customers, Who are they?</li> <li>- What do consumers WANT?</li> <li>- What are consumer NEEDS?</li> <li>- Signals from the Merino Fibre Apparel Value Chain</li> <li>- Need to change?</li> <li>- Accessing technical support</li> </ul> <p>The ½ day Genes to Suit session was presented with a ½ day session on marketing the wool clip (see Making \$\$ and \$sense out of marketing wool). or shorter more specific information sessions (Wool futures, Wool Options, Quality Management Systems, and Cost of Production).</p>
Making \$\$\$ and \$sense out of marketing wool	NSW Agriculture	1997 - 1999	New South Wales	½ day	<p>This workshop aimed to:</p> <ul style="list-style-type: none"> <li>- inform participants of the various methods available to market a clip and how each method operated</li> <li>- assist participants to become better aware of the product they are selling and how to use that information to market their clip</li> </ul>

					<ul style="list-style-type: none"> <li>- equip participants with some basic skills to assist them in marketing future clips.</li> </ul> <p>Topics included:</p> <ul style="list-style-type: none"> <li>- wool marketing options</li> <li>- clip analysis and its use in marketing</li> <li>- cost of production</li> <li>- setting a reserve</li> <li>- factors affecting price</li> <li>- cost of holding wool</li> </ul> <p>These workshops combined presentations with practical exercises. Participants wool clip details were benchmarked to identify opportunities for improvement, they were assisted to estimate the cost of production for their enterprise and how to interpret the discounts applied to various wool faults.</p>
Access to the Experts: Producing the Wool that the market demands	Premium Quality Wool Cooperative Research Centre	1997	National	½ day	<p>A facilitated video conference workshop involving a wide cross-section of the wool value chain education sector. Pre-reading material was provided to each attendee including a bound set of presenters notes and the published material referred to in the presenter notes. Each of the 4 workshops began with a facilitated session to allow attendees to compare queries and ideas with other participants at each site prior to being linked with the experts via video conference.</p> <p>Topics included</p> <ol style="list-style-type: none"> <li>1. New developments in breeding objectives. Breeding to produce the sheep and wool that the market demands.</li> <li>2. Follicles and fleeces. An objective assessment of how the skin affects the quality and weight of the wool produced.</li> <li>3. Management for better quality wool. Managing sheep and pastures to produce the best wool our sheep are capable of producing.</li> <li>4. ??</li> </ol> <p>A feature of this program was for attendee to 'meet' the people in Australia who were active in wool quality research and extension to facilitate future contact and networking.</p>
Merino Breeding & Selection – A commercial focus	NSW Agriculture & The WoolMark Company	1999 - 2001	National	1 day	<p>This workshop was developed and delivered as part of The WoolMark Company's Rampower technology transfer program. The workshop was designed for commercial Merino breeders and consisted of 6 modules:</p>



					<ol style="list-style-type: none"> <li>1. Meeting your market needs</li> <li>2. The key features of profitable Merino enterprises</li> <li>3. Developing a breeding objective to increase your profit</li> <li>4. Benchmarking Genetic Performance</li> <li>5. Strategies for Change</li> <li>6. Merino sheep selection</li> </ol> <p>In terms of wool quality, this workshop focused on fibre diameter, staple length, staple strength, vegetable matter and colour.</p>
On-farm fibre measurement (OFFM)	Australian Wool Innovation and the Australian Sheep Industry CRC	2004 - 2006	National	1 day	<p>OFFM workshops and associated training manual 'Making money from measurement. A practical guide to assist woolgrowers make the best use of On-Farm Fibre Measurement' to provide woolgrowers with new skills and knowledge to allow them to decide whether OFFM was a strategy to employ and the best means of doing so. The OFFM workshop included:</p> <ol style="list-style-type: none"> <li>1. An introduction to OFFM</li> <li>2. Financial benefits of OFFM</li> <li>3. Practical benefits of OFFM</li> <li>4. Setting up for OFFM</li> <li>5. OFFM fleece measurement instruments</li> <li>6. Software</li> <li>7. OFFM QA program</li> </ol> <p>AWI's overall OFFM program also included extension workshops delivered to broker, consultants, industry advisors and OFFM operators designed to ensure woolgrowers were getting sound advice and a Quality Assurance sheep for OFFM operators to increase the quality of the measurement processes and woolgrower confidence in the measurements.</p> <p>In terms of wool quality, the OFFM program was based on understanding the variation in fibre diameter within a flock and using that information to make genetic and within flock selection decisions, assist in segregating a wool clip into lines based on fibre diameter and improving flock management.</p>
Lifetime Ewe Management (LTEM)	RIST and Australian Wool Innovation	2006 - present	National	6 x 1-day hands-on sessions per year	<p>Facilitated small group sessions to coach Merino producers through understanding the impacts of ewe nutrition on the performance of the ewe and her progeny. This course focusses on the impact of managing Merino ewes to prescribed condition score (CS) targets through an annual reproductive cycle.</p>

					In terms of wool quality, the fibre diameter and staple strength along with the fibre diameter of their progeny.
Making More From Sheep (MMFS)	Australian Wool Innovation and Meat & Livestock Australia	2005 - 2017	National	1-hour webinars to 1 day workshops	<p>A best practice package of information, tools and learning opportunities for Australian sheep producers to assist then achieve profitable and sustainable sheep production. MMFS consisted of 12 linked modules covering subjects ranging from soils and pasture to wool and meat marketing, animal health, genetics and farm sustainability.</p> <p>Module 2 'Market Focused Wool Production' provided a background to wool enterprise planning and was designed to assist with on-farm decision making. It described the influence of fibre characteristics on price and presented options for estimating wool value along with a range of selling options.</p> <p>Module 9 'Gain From Genetics' outlined an effective approach for genetic selection in commercial sheep flocks to enhance profitably by achieving ongoing genetic improvement. Along with fleece weight, the key wool quality traits discussed were fibre diameter, staple strength and staple length.</p>
Precision Sheep Production Masterclasses and webinars	Australian Sheep Industry CRC (Sheep CRC I)	2009 - 2010	Masterclasses were held in Orange but open to attendees from across Australia	2 days	<p>The Masterclasses introduced trainers and potential service providers to the principles of precision sheep management. Topics included:</p> <ul style="list-style-type: none"> <li>- Precision management introduction, benefits and decision support tools</li> <li>- Equipment</li> <li>- Technology applications</li> <li>- Data handling</li> <li>- Preparing a PSM plan, developing strategies &amp; reviewing the plan</li> </ul> <p>A series of webinars were subsequently delivered to PSM service providers and sheep producers which provided more in-depth information on the key PSM equipment and software.</p>

## **ATTACHMENT 3.2 - AWI's Breech Flystrike RD&E Forum - Supply chain engagement presentation**



# 2018 BREECH FLYSTRIKE RD&E TECHNICAL UPDATE

Global Supply Chain  
Engagement

Peta Slack-Smith – AWI  
17 July 2018



## WHY AWI IS INVOLVED

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- 🐑 Primarily - as the RDC & Industry Services body for the wool industry - to invest in RD&E
- 🐑 Secondly –our presence & existing partnerships on the ground in key markets
- 🐑 Thirdly - legacy commitments of the PeTA settlement



# AWI'S ROLE



## BREEDING AND SELECTION

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

## IMPROVED MANAGEMENT PRACTICES

THE AIM: Improved management practices to advance lifetime welfare.

## BREECH MODIFICATION ALTERNATIVES

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

## WOOL INDUSTRY TRAINING AND ENGAGEMENT

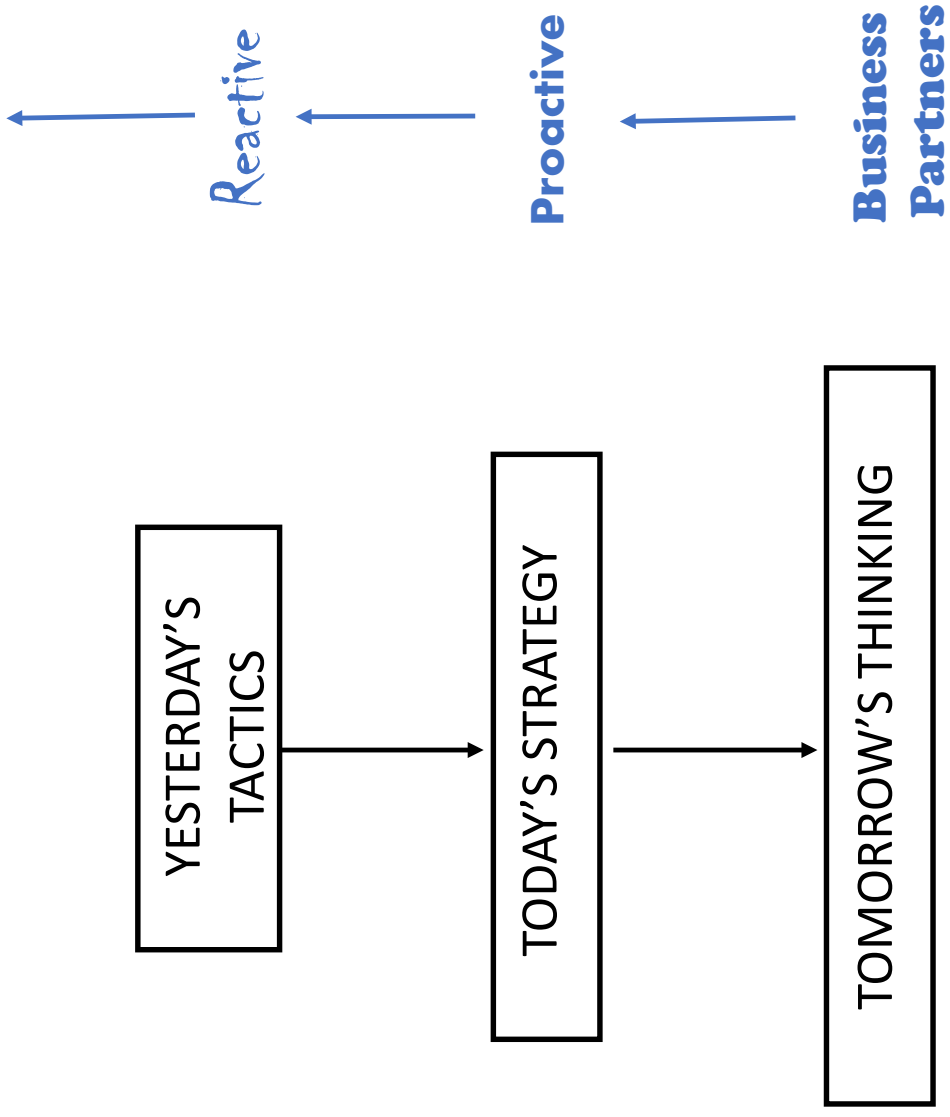
THE AIM: Adoption of best practice strategies to improve the lifetime welfare of sheep and reduce reliance on mulesing.

## SUPPLY CHAIN ENGAGEMENT

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



# HOW AWI'S STRATEGY HAS EVOLVED OVER THE PAST DECADE



## HOW AWI ENGAGE

- Annual delegation with brands, associations & Non Government Organisations (NGOs)



- Importance & efficiencies of dealing with key influencers and associations

- Annual progress reports & resources on RD&E

Connecting domestic partners with supply chain partners



Ongoing guidance, training & support





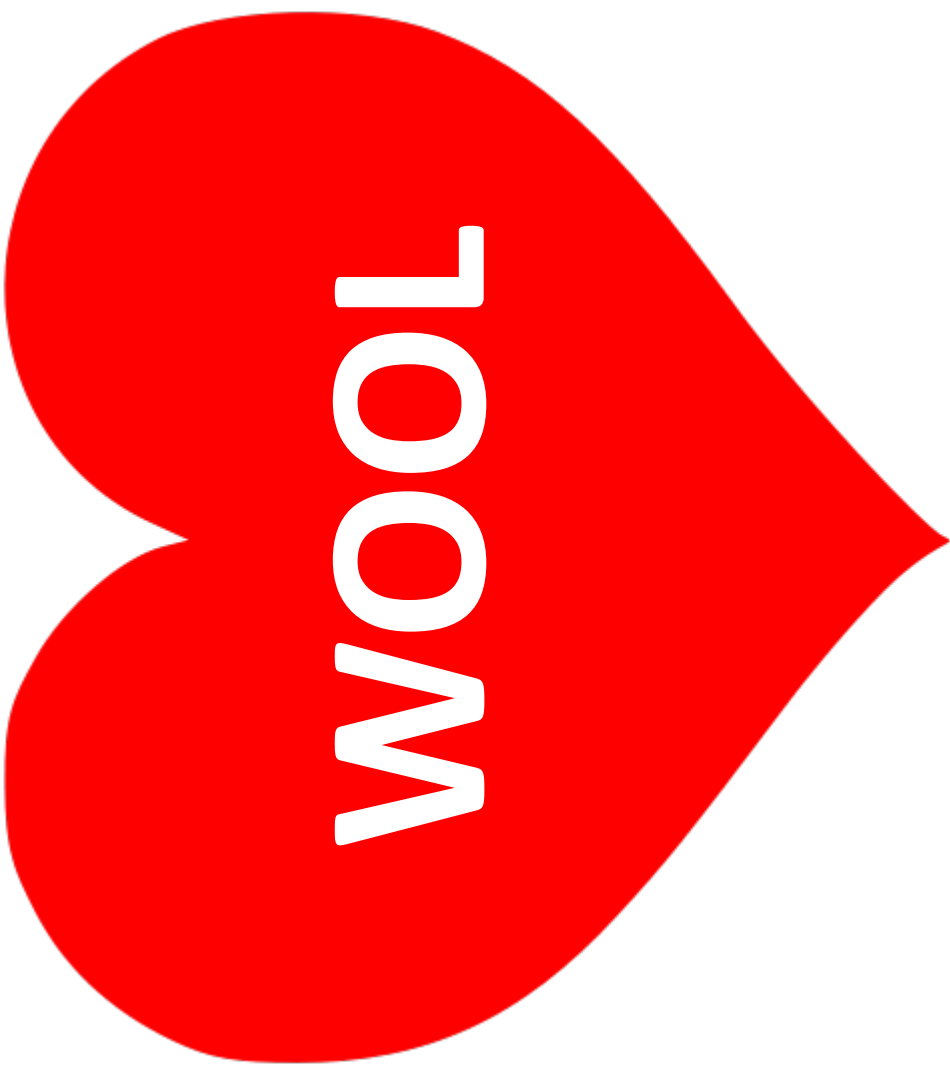


FOLLOWING THE MOB..... BRANDS AND INDUSTRY LEADERS NEED TO  
BE WELL INFORMED.

# KEY THEMES FROM SUPPLY CHAIN

- 🐑 Discussion & understanding has evolved
- 🐑 Corporate Social Responsibility (CSR) – it's not just wool
- 🐑 A range of drivers - need to understand their pressures
  - commercial, legislative, NGOs
- 🐑 Preferentially source NM & PR wool, but want it verified

- 🐑 Strong support for NWD





At anyone time, we are dealing with partners at different stages of this

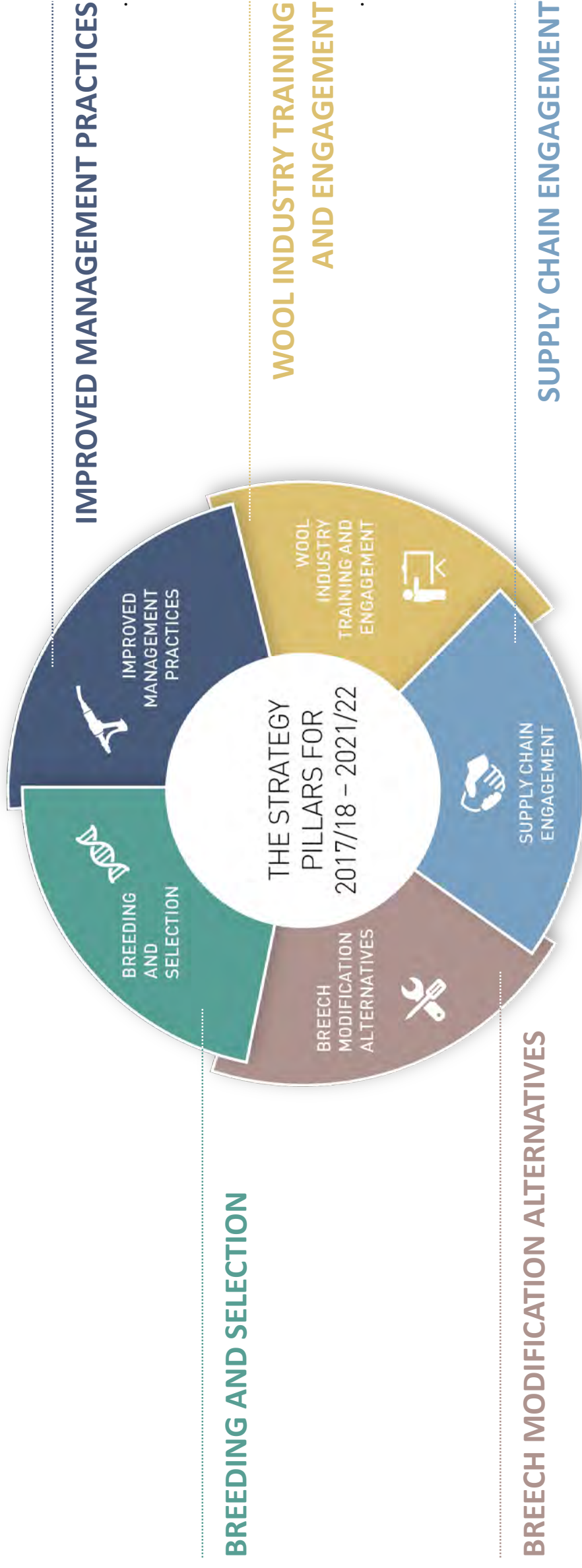
spectrum

**MULESING → WELFARE →**

**CSR/ SUSTAINABILITY →**

**TRACEABILITY**

# TODAY'S FORUM FOCUS IS MULESING/ ANIMAL HEALTH & WELFARE



# CORPORATE SOCIAL RESPONSIBILITY (CSR)/ SUSTAINABILITY COVERS A VERY BROAD RANGE OF ISSUES

- Typical issues include:
  - Responsible business practices
  - Animal welfare
  - Environmental impact
  - Food safety
  - Fair trade
  - Life Cycle Assessment
  - Worker conditions
  - Ethical sourcing
  - Chemicals in supply chain
  - Increasing, sustainability of producers and farmers

## CSR of today

Yesterday's "Triple bottom line"







UNITED STATES  
FASHION INDUSTRY ASSOCIATION

*Julie Hughes*  
*President at U.S. Fashion  
Industry Association*



*Jon Gold*  
*VP, Supply Chain and  
Customs Policy*



## COMMENTS ON TRACEABILITY



*Alexandre Capelli*  
*Group Environment Manager*



*Wendy Savage*  
*Director of Supply Chain Social  
Responsibility & Traceability*



*Steve Groenich*  
*Sales Director USA*

TRACEABILITY

IS THE NEW

"BLACK"





*Jon Gold*

*Vice President, Supply Chain  
and Customs Policy*



# COMMENTS ON NWD



*Steve Lamar*  
*Senior Vice President*  
*American Apparel Footwear Association*





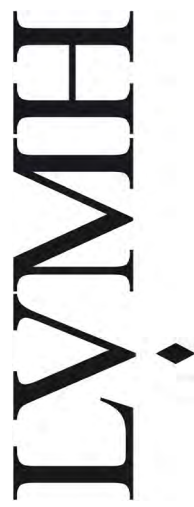
# NATIONAL WOOL DECLARATION

- Very high awareness and understanding of AWEX's NWD
- Monitor the NWD monthly figures
- Monitor the annual declaration figures to see trends
- Universally want growers to increase use of the NWD





*Wendy Savage*  
*Director of Supply Chain Social*  
*Responsibility & Traceability*



*Alexandre Capelli*  
*Group Environment Manager*



*Cathelijne Klomp*  
*Raw materials / Supply Chain*  
*Projects Manager*



# MESSAGE TO WOOLGROWERS

# Theory

*Jane Potter*

*Director, Fabric Buying*



## WHY WE

## LOVE

# WOOL!



FOR MORE  
INFORMATION,  
CONTACT:

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**Peta Slack-Smith**

General Manager Corporate Affairs  
& Market Access

[peta.slack-smith@wool.com](mailto:peta.slack-smith@wool.com) or +61 400 171 957

## **ATTACHMENT 3.3 - Woolshed Design and Consultation project update**

### *Summary*

On 16 June 2017, AWI held a “Future of Wool Harvesting” workshop in Dubbo (Appendix A). This workshop identified many challenges and opportunities, with one major priority being to consult with the end users (shed staff, shearers and woolhandlers) on shearing shed best practice design features.

As a result of this consultation, AWI commenced the ‘Woolshed Design and Consultation’ project to engage a variety of stakeholders from the shearing industry in a consultative process, to create the most efficient & effective shed design as well as to document the decision-making process and the considerations made.

The project has looked at design features including; movement and welfare of sheep, movement and quality of wool, movement of people, lighting, noise reduction and management, health and hygiene, amenities and facilities, kitchen/crib room, temperature management and ventilation.

This project is currently at the stage where a final design has been developed and the engineering and blue print development is underway. Once complete, AWI will publish the findings and relevant documents for general public access on [www.wool.com](http://www.wool.com) as well as distribute the information to major shearing shed builders across the country.

### *Project outline*

Industry Survey: Looked to identify components of the shearing shed which:

- are more efficient for workers and the flow of livestock
- are safer for workers
- present minimal risk to the welfare of the livestock
- allow for quality wool preparation

Shearing Shed Evaluation Excursion: AWI established a working group (shearers, woolhandlers, classers, contractors, woolgrowers) to partake in a shed evaluation tour to identify good and poor quality design features. The working group were also asked to come up with an initial draft prototype concept.

Design Development: initial design distributed to the working group and AWI’s Shearing Industry database, for feedback and comment.

Finalise Design and trial: a one stand unit prototype was built and trialled to confirm effectiveness for shearers. Once approved, a three-stand prototype was built and trialled by shearers and wool handlers for effectiveness.

Development of blue print and engineering: currently underway.

Host an open day at a shed built to the approved design: date to be confirmed.

## Appendix A:

### Wool Harvesting Innovation Workshop

16 June 2017, 9am-4pm, Taronga Western Plains Zoo, Dubbo

#### Aim:

- To establish industry wide feedback and prioritisation of investment in innovation with the aim of greater efficiencies in wool harvesting for woolgrowers and the wider industry.
- Create industry wide awareness, communication and motivation for the need to innovate/improve wool harvesting methods and its sustainability.

#### Relevant topics in addressing above:

- Better understand the lack of widespread adoption of innovation in wool harvesting methods and associated barriers.
- Challenges for wool harvesting (shearers, wool handlers, contractors, growers)
  - Workplace Health and Safety
  - Ageing Infrastructure and re-investment
  - Labour options, training, availability, seasonality
- Opportunities and threats of technology
  - Alternatives to traditional shearing
  - Retrofits/shed design/mobile shearing
  - Technological developments

#### Participants:

Andrew Brougham, Woolgrower  
Grant & Annette Burbidge, Shear  
Anywhere, Woolgrowers

Andrew Burgess, Woolgrower  
Bill Byrne, Peak Hill Industries  
Darren Campbell, Woolgrower  
Penny Clout, Wool Handler Trainer  
Don Chad, Chad Wool  
Denis Fealy, Woolgrower

Jo Hall, Wool Producers Australia  
Steve Kiss, Woolgrower  
Don Macdonald, Macdonald & Co Wool  
Brokers

Ted Morgan, Woolgrower  
Scott O'Leary, Shearing Contractor  
Paul Oster, Shearer Trainer, Woolgrower  
Chris Patmore Woolgrower, PGA of WA  
Ivan Pine Shearer, Woolgrower

Bryan & Alicia Piper Woolgrowers  
Don Pratley, Woolgrower

Bill Reddington, Quality Wool  
Mick Schofield, SCAA  
Alix Turner, Woolgrower  
Phil Ward, Australian Agricultural Training  
Shannon Warnest, Shearer Trainer, Woolgrower

AWI  
Jim Murray  
Stephen Feighan

Henry Ridge  
Graeme Curry

Facilitator  
Peter Schuster, Schuster Consulting Group

## SUMMARY OF PROCEEDINGS

Mr Peter Schuster welcomed the meeting and invited Mr Stephen Feighan and Mr Jim Murray to address the group regarding the objectives for the day.

Mr Bill Byrne (Peak Hill Industries) presented on the use of upright posture shearing platforms (UPSP).

Key points:

- Has been working on machinery for the sheep and wool industry since the 1990's – all made in Australia
- Has worked on various UPSP developments. The electrical unit was too expensive (\$80K) so has progressed pneumatic operated system
- The current ShearEzy UPSP is adjustable to trailer and permanent/semi-permanent set up
- 200 plus head per day possible with experienced operator, however there is a need for greater efficiency and further study of blow patterns
- Easily linked for multiples if required
- \$16k per unit & has sold 50 UPSP in last 10 years – but need to sell more units

*A video was shown following Mr Byrne's presentation (available from <http://www.peakhillindustries.com.au/SheepHandling/ShearEzy.htm>).*

Mr Grant Burbidge presented an alternative upright wool harvesting model – based on the Andrew Wytkin (WA) system developed and operated in the 1980's. This was demonstrated through video of the operation (available from <https://www.burbidgefarms.com/wool-harvesting>).

Key points:

- Has been exploring alternative wool harvesting ideas for the past seven years
- Alternatives he has found go back as far as the 1940's
- Need/Why Change:
  - Labour shortage - shearers, rouseabouts, etc
  - Increase WH&S benefits (catch and drag, animal size, etc)
  - Old sheds are not user-friendly or need replacing
  - Increasing cost of shearing
  - Greater quality assurance
  - Commenced training Shear Anywhere Aug 2015 - trained 25 people (shearing 22,000)
- Chicken and the egg syndrome – why have previous attempts failed:
  - No UPSP shearer wants to shear conventionally
  - No conventional shearer wants to shear on a UPSP (conventional shearers are highly skilled and changing to UPSP in essence lowers their skill level)



- Most growers want a fully trained team
- Need to address the skilled labour shortage for UPSP shearers
- What is necessary to improve
  - Identify growers who have or see the need for change in the wool industry
  - Start training more and develop the training system and package (train the trainers)
- There is greater potential if it were to have someone with conventional shearing experience (such Shannon Warnest or Paul Oster)
- While shearing for numbers is important because there is a job to get done, at the end of the day wool preparation is essential
  - Skirt as you go is essential with labour saving as the shearer is best placed to know where the wool has come from
  - Using the four presses saves 1/4 – 1/3 of a labour unit
  - Wool prep – QA (monetary incentive) \$3/hd shearing +50c/hd skirting

Mr Murray updated on Bioclip and discussed shed design.

Key points:

- Bioclip is now 100% owned by Heiniger and they are currently looking at opportunities with potential for a commercial product to be available in the near future
- Heiniger are also working on innovation with existing and new handpiece technology
- AWI is in the process of updating information on its website around shed design and information to be considered when building/retrofitting wool sheds
- That is why although being a conventional practice the below points were noted as wool sheds will still be used into the future and it is important that the best and most up to date information be available

An open discussion by all covered the following considerations for shearing shed design:

- Understand the optimal spacing and flow of activities within the shed
- Delivery and release system are important to consider
- Optimal chutes (wool retention and sheep baulking at small sized entrance ways)
- Rough sawn grating (slippery floors in new sheds) and direction
- Good amenities (eg water, toilets, climate control, internet connection)
- Designers should consult with end users in the design phase
- A modular/multi-purpose construction may be optimal as it can be expanded based on usage, particularly useful in a retrofit



- Potential to incorporate mobile/trailer systems
- Taxation consideration in regards to right-offs – large sheds suited to UPSPs may be more tax effective than conventional shearing sheds
- Re-look at efficiencies of a process chain system for wool harvesting
- Animal welfare should be a consideration throughout the design

Videos of woolgrowers discussing their new shed designs were shown

Magnus Aitkin Steam Plains:

<https://www.youtube.com/watch?v=n999Hj1Aekc>

Rupert McLaren Glenmore:

<https://www.youtube.com/watch?v=KzLa7gGTO0E&t=95s>

Mr Murray also presented on 'Shear Jitsu', a way that shearers can prevent injury and increase the longevity of their careers. A video was shown featuring Pera Davies who developed the 'Stand and Deliver - Shear-Jitsu'. See: <https://www.wool.com/on-farm-research-and-development/wool-harvesting-and-quality-preparation/shearer-and-woolhandler-training/training-resources/>

Mr Paul Oster and Mr Shannon Warnest presented various perspectives as shearer trainers, shearing contractors and woolgrowers:

- Highlighted catch and drag/release as major issues
- Need for increased communication between shearers and growers (both want same outcome)
  - Growers want reduced cost
  - Shearers want less injury and improved practices (lead to reduced costs)
- Continued livelihood of shearers essential
- Shearing patterns are continually being improved and reviewed (Paul-Shearing now is a lot different to when he first started shearing)

## **WORK GROUPS - Summary**

The attendees broke into groups to discuss the challenges and opportunities within the four categories:

1. Blue sky
2. Alternatives to conventional wool harvesting
3. Training and retention
4. Shed design and retrofit

## 1. **Blue sky**

### Impediments to innovation

- Mind set
  - Focus on people willing to change
  - Forget about working with those not willing to change
- Time
- Money must be spent correctly - AWI

### How to progress innovation

- Need for change
- Innovation platform to collect ideas eg:
  - online chatroom to discuss innovation
  - put ideas out to tender/challenge/prize
- Look at anything from growing to the mill
- Look outside the industry

### Next steps

- Need to train people to remove wool from sheep by different methods ie UPSP
- Need to investigate efficient ways to move wool from point of harvest to the press. Eg:
  - vacuum
  - conveyor
  - in-shed fibre testing
  - new wool containers to replace conventional bales
- Develop training module for UPSP and train the trainers for UPSP

Overall rider –investment in technology must be economically viable throughout the whole chain.

## **2. Alternatives to conventional wool harvesting**

Challenges	Opportunities
<ul style="list-style-type: none"><li>• To conventional trailer and ECR</li><li>• Funding</li><li>• Mobility</li><li>• Capacity - economies of scale</li><li>• Delivery</li><li>• Wool preparation/handling</li><li>• Limitations of existing infrastructure</li><li>• Skill labour for new methods</li><li>• Animal welfare issues</li></ul>	<ul style="list-style-type: none"><li>• Shearer health and safety (no catch and drag)</li><li>• Strategic use of conveyors</li><li>• Economic replacement of obsolete infrastructure</li><li>• Safer working environment</li><li>• Recognise need to change</li><li>• Identify synergies</li><li>• Breakdown paradigms</li></ul>

## **3. Training and retention**

Challenges	Opportunities
<ul style="list-style-type: none"><li>• Attracting people into the industry</li><li>• Consistency of employment</li><li>• Pay issues</li><li>• Travelling</li><li>• Technology - no communication in remote locations/work conditions</li><li>• Physical</li><li>• Social issues in workplace (eg drugs)</li><li>• Wool handlers - no career path, low income</li><li>• Education of growers &amp; employees/contractors on shed responsibilities</li><li>• Wool classing - lack of good classers</li><li>• Viability of farmers</li></ul>	<ul style="list-style-type: none"><li>• Continual industry run training</li><li>• AWI take on UPSP training</li><li>• Contractors - excellence at profession</li><li>• High income with good practice</li><li>• Overseas travel</li><li>• Competitions</li><li>• In-shed training</li><li>• Zero tolerance for drugs etc with education</li><li>• Wool classing/pressing opportunities if desired</li><li>• Communication of sheep owners, employees and contractors.</li><li>• Research into sheep curfew in relation to injury</li></ul>

<ul style="list-style-type: none"> <li>• Break down barriers between trainers, contractors and owners</li> <li>• Lack of understanding of wool categories eg: stain (combing/carding)</li> <li>• Training and education</li> </ul>	
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#### 4. Shed design and retrofit

<b>Challenges</b>	<b>Opportunities</b>
<ul style="list-style-type: none"> <li>• Expense</li> <li>• Lack of understanding of 'best practice' design and equipment</li> <li>• Where do you get information/expertise?</li> <li>• Is the raised board as good as perceived?</li> <li>• Changing staff demographics (ie gender)</li> <li>• Capital outlay for time used - needs to be put in perspective</li> <li>• Conducive light and noise control</li> <li>• First impressions - commitment and professionalism</li> <li>• Ability for sheep and wool storage</li> <li>• OH&amp;S issues</li> </ul>	<ul style="list-style-type: none"> <li>• Invest while wool market is up</li> <li>• AWI to pursue R&amp;D into best practice shed design, incorporate grower and shed staff input</li> <li>• Development of 'ShedBoss' type solution</li> <li>• Multipurpose shed design/use</li> </ul>

Mr Schuster asked for comment from attendees on barriers to adoption and methods for overcoming these barriers. The group identified the following:

#### **Barriers:**

- Threat of change
- Lack of lateral thinking - unifying force
- Lack of clear template of what is needed/lack of long-term vision
- Need to show confidence in the industry to build desire to invest in infrastructure
- Day-to-day jobs - producers are too busy - takes time to look into options
- Hard job - educationally, physically - when technology makes it easier/when there's a better way to cut (eg something other than a hand piece) then adoption will follow

- Lack of consistent use causes issues (eg investment required vs frequency of use)

### ***Pathway to adoption***

- Leader strategy required -consider diffusion of innovation (laggards/early adopters etc)
- Use champions eg: a conventional shearer who has switched to alternatives
- Approach must be both individualised and unified. Tailored to each industry participant group ie woolgrowers, shearers, contractors etc
- There is a disconnect between growers and service providers - must engage
- Need face-to-face discussions around options
- Urgency - the time is right now to make change (eg prices are good)
- Categorise issues eg: probably vs possible
- Develop compelling value propositions for each section of the industry
- Influence the influencers
- Establish a clear source of objective information (not commercially biased) eg shed design

Mr Schuster invited Mr Feighan to address the group.

- Thanked participants for giving their time to be part of the day
- Indicated that a summary of the workshop would be forwarded to all participants and presented to the AWI Board for further discussion and consideration
- Noted the general discussion covered three horizons – short, medium and long term initiatives

### ***Short-term***

- Invest in training – both conventional and upright (or others as they come about)
- Provide 'Best practice shed construction' materials which include independent assessments and consider OH&S and efficiency issues

### ***Medium-term***

- Further investigate mobile shearing and its application
- Develop a strategy for further development, training and adoption of UPSP systems
- Support ongoing research into alternatives to the hand piece and catch and drag

### ***Long-term/Blue sky***

- It is important to look beyond the industry for solutions

- A competition or similar to improve innovation may be possible to encourage lateral thinking towards wool harvesting
- Ensure innovation addresses the needs
- Improve communication through the chain

Mr Schuster thanked attendees for their time. The meeting closed at 4pm.

#### **4. Update from Department of Agriculture, Water and Resources**

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**TITLE:** Update from Department of Agriculture, Water and Resources

**DATE:** 10 October 2018

Verbal update to be provided by Michael Ryan from DAWR to ICC members.

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## **5. WoolPoll 2018 and Review of Performance Update**

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**TITLE:** AWI report back – WoolPoll 2018 and Review of Performance update

**DATE:** 10 October 2018

### **WOOLPOLL 2018 UPDATE**

- WoolPoll voting officially opened on 17 September 2018. Voting closes on 2 November.
  - Anyone who has paid over \$100 in wool levy over the past 3 years is eligible to vote.
  - As at 1 October, 1912 voting papers had been returned.
  - If a woolgrower has any questions about the WoolPoll voting process, please advise them to contact Link Market Services on 1800 990 365.
  - Results of WoolPoll 2018 will be announced 23 November at AWI's AGM.
- At the request of the WoolPoll Panel following a query from the ICC, AWI made the Voter Information Memorandum (VIM) available online three weeks before voting opened to enable informed debate within the industry.
- Consistent with the requirements of the WoolPoll Regulations, AWI has made a recommendation of a levy rate to growers in the VIM. AWI is recommending woolgrowers vote to maintain the 2% levy. Details on AWI's finances and levy rate recommendation are outlined in the VIM, and can also be found at [www.woolpoll.com.au](http://www.woolpoll.com.au)
- AWI has also been holding industry and market updates at various locations around the country to provide woolgrowers with the opportunity to ask AWI questions on WoolPoll, the Review of Performance or any other matter. Details on the forums can be found on [www.woolpoll.com.au](http://www.woolpoll.com.au)

### **REVIEW OF PERFORMANCE UPDATE**

- Since the last ICC meeting, EY has completed its review of AWI's performance, and the report has been published.
- More than 1300 documents were submitted by AWI as part of the forensic examination, with the views of over 400 woolgrowers recorded together with 56 written submissions and face to face interviews with more than 100 stakeholders and public comment.
- 82 recommendations were suggested, with the areas of monitoring and evaluation, consultation and governance being the focus. The recommendations ranged in levels of importance from 'mandatory', 'critical' and

'recommended' and provide the company with timing suggestions for completion helping to pave the way for greater consultation, transparency and accountability.

- AWI has embraced the recommendations - 75 are agreed, five are marked for AWI shareholders' consideration to vote on as they relate to the organisation's constitution, and two are agreed in principle.
- AWI is focused on ensuring transparency and information flow with woolgrowers and industry throughout the entire implementation period.
- To achieve this, on 10 September AWI launched its Review of Performance Implementation Portal to provide transparent reporting on its progress implementing the 82 recommendations.
- The Portal is available at [rop.wool.com](http://rop.wool.com) and enables AWI to report in real time.
- Based on initial feedback from woolgrowers and other industry stakeholders, the Portal now features a date stamp on each page and alongside each recommendation item to make it easier for users to track AWI's progress.
- AWI has a statutory obligation through the Statutory Funding Agreement (SFA) to provide its implementation plan to the Department of Agriculture, Water and Resources by Friday 19 October 2018. The ROPIP will be updated to incorporate the plan.

## 6. AWI report back - On Farm R&D and marketing update

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**TITLE:** AWI report back – On Farm R&D and marketing update

**DATE:** 10 October 2018

### AWI report back – on farm R&D

- Verbal update from AWI's General Manager - Research, Jane Littlejohn.

### AWI report back – marketing

- Verbal update from AWI's Global Communications Manager, Laura Armstrong.

### Status of AWI's programs

Please refer to Attachments 6.1 – 6.5 for an updated summary on AWI's progress in implementing AWI's Strategic and Annual Operating Plans.

For each target, AWI has developed the following descriptors to outline progress:

- **Achieved:** the deliverable/s listed in the AOP have been fully completed for this financial year as outlined in the AOP.
- **On Target:** activity and operation regarding the deliverable/s listed in the AOP are on-track and being implemented as planned without any delays.
- **In Progress:** activity and operation regarding the deliverable/s listed in the AOP are on-track and being implemented and may have/ or is likely to have delays in terms of timing, budget or output.

### Attachments

- **6.1** Sheep Production Deliverables 2017/18
- **6.2** Processing Innovation and Education Extension Deliverables 2017/18
- **6.3** Woolgrower Services Deliverables 2017/18
- **6.4** Marketing Deliverables 2017/18
- **6.5** Business Services Deliverables 2017/18

# ATTACHMENT 6.1 - Sheep Production Deliverables 2017/18

SHEEP PRODUCTION DELIVERABLES 2017/18			
OVERALL OBJECTIVE		Increase the profitability and sustainability of woolgrowing.	
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS
Healthy Productive Sheep	SHEEP HEALTH & WELFARE	<ol style="list-style-type: none"> <li>1. Pre-operative pain relief available for routine surgical procedures.</li> <li>2. Breech modification alternatives commercialised.</li> <li>3. Improved laboratory diagnostic testing for worms and larvae.</li> <li>4. Sustained increase in grower utilisation of the ParaBoss website.</li> <li>5. Wool bale decontamination and disinfection procedures developed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Achieved.</li> <li>2. In progress. – some delays.</li> <li>3. On target.</li> <li>4. On target.</li> <li>5. On target.</li> </ol>
	VERTEBRATE PESTS	<ol style="list-style-type: none"> <li>1. Effective national and regional coordination of vertebrate pest control effort in sheep producing areas.</li> <li>2. 15 new community based vertebrate pest control groups established each year, bringing to a total of 165 group supported by end 2018/19, with the value of avoided stock loss (sheep) greater than costs to wool growers and AWI combined.</li> <li>3. Maintain support to existing funded groups and expand to other vertebrate pests.</li> <li>4. National release of RHDVK5, and successful development of RHDV strains of enhanced virulence.</li> </ol>	<ol style="list-style-type: none"> <li>1. In progress.</li> <li>2. Achieved.</li> <li>3. Achieved.</li> <li>4. In progress.</li> </ol>
	REPRODUCTION	<ol style="list-style-type: none"> <li>1. An extra 1500 AWI-funded participants in LTEM (500 per annum), representing 15% of the adult ewe flock in Australia, that increase lamb weaning rates by 7%, and reduce ewe mortality by 30%.</li> <li>2. At least 250 producers engaged in determining the impact of lambing density (ewe mob size and stocking rate) on lamb survival.</li> <li>3. Strategies to improve weaner and maiden ewe performance developed.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target.</li> <li>2. On target.</li> <li>3. On target.</li> </ol>
	GENETIC IMPROVEMENT	<ol style="list-style-type: none"> <li>1. At least 3,800 Merino ewe progeny being evaluated for lifetime productivity across at least 5 regionally representative sites, in partnership with Australian Merino Sire Evaluation Association.</li> <li>2. Routine, low-cost per head alternatives to genomic parentage technology in wide commercial use for mothering-up Merino lambs.</li> <li>3. Australian sheep breeders maintain access to consolidated and improved wether trial, central test sire evaluation and MERINOSELECT databases.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target</li> <li>2. On target.</li> <li>3. On target.</li> </ol>
Farm Automation & Software Development		<ol style="list-style-type: none"> <li>1. Develop and demonstrate across sheep production systems smart sheep ear tags capable of generating maternal pedigree, automatic geo-location, and welfare alerts, and integrating with virtual fencing advances.</li> <li>2. Integrate pasture Feedbase assessment technologies into digital farm management tools.</li> </ol>	<ol style="list-style-type: none"> <li>1. In progress.</li> <li>2. In progress.</li> </ol>
Feedbase & Fibre Advocacy	FEEDBASE & ECO - CREDENTIALS	<ol style="list-style-type: none"> <li>1. Generate significant improvement in wool's environmental footprint ratings, and strengthen wool's reputation for environmental stewardship.</li> <li>2. Through better understanding of constraints to grower investment in pasture renovation, increase adoption of beneficial feedbase practices with currently modest adoption rates – reaching 20% of all growers by 2021.</li> <li>3. Prepare woolgrowers for the effects of climate change - by 2019, 50% of woolgrowers will have implemented climate change mitigating or adapting technologies without loss of profit.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target.</li> <li>2. On target.</li> <li>3. On target.</li> </ol>
	FIBRE ADVOCACY	<ol style="list-style-type: none"> <li>1. Internationalize studies demonstrating that Merino base-layer garments ameliorate chronic skin conditions associated with microclimate management of the skin.</li> <li>2. Demonstrate that wool bedding and sleepwear improves sleeping conditions.</li> <li>3. Support development of product market opportunities in categories such as corporate wear, safety wear, medical product and infants wear.</li> <li>4. Develop specifications for next-to-skin wear to improve reliability and consumer confidence in Merino baselayer garments.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target.</li> <li>2. On target.</li> <li>3. On target.</li> <li>4. On target.</li> </ol>

## ATTACHMENT 6.2 - Processing Innovation and Education Extension Deliverables 2017/18

PROCESSING INNOVATION AND EDUCATION EXTENSION DELIVERABLES 2017/18			
OVERALL OBJECTIVE		Increase the profitability and sustainability of wool processing	
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS
Processing Innovation		1. Develop and commercialise 6 new processes and transfer to 15 manufacturers, yielding an average mill profit increase exceeding \$20,000 by 2019. 2. Develop 4 innovations and transfer to 33 manufacturers, yielding an average mill profit increase exceeding \$20,000 by 2019.	1. On Track. 2. In progress.
	STUDENT EDUCATION	1. Directly engage participants at an average cost per effective participant of \$10.	1. In progress.
Education Extension	TRADE EXTENSION	1. Operating under a fixed budget AWI will seek to generate leads at a cost (project and staff) of \$1 per lead. 2. For our technology transfer investment we will seek to work with 45 new manufacturers by 2019, with the average profit increase per manufacturer exceeding \$20,000 annually. 3. TWL will seek to deliver a minimum of 350 client meetings and to determine the extent to which our clients use TWL in their products.	1. On Track. 2. On Track. 3. On Track.
	CONSUMER EDUCATION	1. Operating under a fixed budget, maximise opportunities for retail stores and consumers more broadly to access educational material on wool and its benefits	1. In progress.

## ATTACHMENT 6.3 - Woolgrower Services Deliverables 2017/18

### WOOLGROWER SERVICES DELIVERABLES 2017/18

OVERALL OBJECTIVE		Increase the profitability and sustainability of woolgrowing.	
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS
Training & Technology Update	SHEEP & WOOL MANAGEMENT SKILLS	<ol style="list-style-type: none"> <li>Over 10 practical sheep skills training events held across the country each year, reaching over 100 people and at an average cost not exceeding \$150 per effective participant.</li> <li>Delivery of the National Merino Challenge on a fixed annual budget in real terms.</li> <li>Average annual cost saving to woolgrowers participating in AWI supported networks exceeds \$700, net of AWI and grower costs.</li> <li>Achievement of a minimum of 8,000 page views for practical sheep management resources on AWI websites at a maximum cost per hit of \$1.50</li> </ol>	<ol style="list-style-type: none"> <li>On target.</li> <li>On target.</li> <li>Ahead of target.</li> <li>Ahead of target.</li> </ol>
	WOOL HARVESTING & QUALITY REPARATION	<ol style="list-style-type: none"> <li>Increase shed productivity by, on average, four sheep per day by 2019 across the whole industry.</li> <li>Cost per person trained remains constant in real terms.</li> <li>Commercial availability of at least one technology, by 2019, to increase the efficiency of wool harvesting.</li> </ol>	<ol style="list-style-type: none"> <li>On target.</li> <li>On target.</li> <li>On target.</li> </ol>
Consultation	WOOLGROWER	<ol style="list-style-type: none"> <li>Provide multiple channels for shareholders to access and consult AWI directly, in person at specific and industry events or digitally</li> <li>A greater awareness amongst shareholders of the ongoing research, development and marketing projects conducted by AWI for the wool industry</li> <li>Provide a more customised flow of information to and from shareholders, delivered regularly and digitally through Beyond the Bale quarterly and newsletters monthly</li> <li>Create the most valued market intelligence in the wool industry</li> </ol>	<ol style="list-style-type: none"> <li>On target.</li> <li>On target.</li> <li>On target.</li> <li>On target.</li> </ol>
	STAKEHOLDER	<ol style="list-style-type: none"> <li>AWI reports on and meets its statutory requirements.</li> <li>Measure positive change in stakeholder awareness of AWI's activities and outcomes (evidenced through annual stakeholder surveys).</li> <li>A greater awareness amongst shareholders of the ongoing research, development and marketing projects conducted by AWI for the wool industry</li> <li>Build awareness among relevant stakeholders of the current sheep animal welfare R&amp;D and commercial landscape.</li> </ol>	<ol style="list-style-type: none"> <li>On target.</li> <li>On target.</li> <li>On target.</li> <li>On target.</li> </ol>

## ATTACHMENT 6.4 - Marketing Deliverables 2017/18

MARKETING DELIVERABLES 2017/18			
OVERALL OBJECTIVE		Increase demand for Australian wool.	
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS
Fashion	MENSWEAR	<ol style="list-style-type: none"> <li>2.5 million kgs of new demand over this strategic period.</li> <li>6 new global partnerships.</li> </ol>	<ol style="list-style-type: none"> <li>On target.</li> <li>On target.</li> </ol>
	WOMENSWEAR	<ol style="list-style-type: none"> <li>2.5 million kgs of new demand over this strategic period.</li> <li>6 new global partnerships.</li> </ol>	<ol style="list-style-type: none"> <li>On target.</li> <li>On target.</li> </ol>
Sportswear		<ol style="list-style-type: none"> <li>20 new partners working with AWI</li> <li>2 million kgs new demand for Australian wool over this Strategic period.</li> </ol>	<ol style="list-style-type: none"> <li>On target.: Actively encouraging more projects in this area</li> <li>On target: Actively encouraging more projects in this area</li> </ol>
Global Campaigns	INTERNATIONAL WOOLMARK PRIZE	<ol style="list-style-type: none"> <li>An additional 3.5 million kgs in new demand by 2019</li> <li>Grow the Alumni database by 60 new designers annually</li> <li>Grow media awareness and editorial coverage by \$10 million</li> <li>Grow the retailer partner network by 3 new retailers from a base of 11.</li> </ol>	<ol style="list-style-type: none"> <li>On track.</li> <li>Achieved - exceeded</li> <li>In progress – not likely to be achieved</li> <li>Achieved - exceeded</li> </ol>
	THE CAMPAIGN FOR WOOL	<ol style="list-style-type: none"> <li>Additional 1.0 million kgs of new demand</li> </ol>	<ol style="list-style-type: none"> <li>In progress.</li> </ol>

## ATTACHMENT 6.5 - Business Services Deliverables 2017/18

BUSINESS SERVICES DELIVERABLES 2017/18			
OVERALL OBJECTIVE		To enable AWI to operate cost effectively through the efficient provision of a range of cross-company support services.	
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS
Corporate Services	FINANCE SERVICES	<ol style="list-style-type: none"> <li>1. Compliance – no default notices for financial reporting.</li> <li>2. Risk – Manage the group reserves policy ensuring the reserves are maintained to target.</li> <li>3. Provide financial reports to the Board/management and audited financial statements.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target.</li> <li>2. On target.</li> <li>3. On target.</li> </ol>
	PEOPLE SERVICES	<ol style="list-style-type: none"> <li>1. Talent Acquisition – talent recruited matches business needs</li> <li>2. Engagement – Year on year improvement in employee engagement measure</li> <li>3. Workplace Culture – Compliance with local and international employment legal requirements and key HR policies globally.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target.</li> <li>2. On target.</li> <li>3. On target.</li> </ol>
	LEGAL SERVICES	<ol style="list-style-type: none"> <li>1. Provide legal and commercial advice and support to the company in order to reflect is strategic and commercial needs as well as mitigating risks.</li> <li>2. Manage the company's intellectual property assets to ensure that they are protected and their value enhanced and provide assistance with commercialisation.</li> <li>3. Administer the affairs and corporate governance for AWI, its Board, Board Committees as well as its subsidiaries, branches and representative offices to ensure their observance of legal requirements.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target.</li> <li>2. On target.</li> <li>3. On target.</li> </ol>
	EVALUATION SERVICES	<ol style="list-style-type: none"> <li>1. All AWI Programs will be evaluated on a routine basis.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target.</li> </ol>
Woolmark	LICENSING	<ol style="list-style-type: none"> <li>1. Stabilise the decline in numbers of licenses.</li> </ol>	<ol style="list-style-type: none"> <li>1. In progress.</li> </ol>
	BUSINESS DEVELOPMENT	<ol style="list-style-type: none"> <li>1. 75% of Key Accounts report a measurable increase in wool production or sales over the strategic period.</li> </ol>	<ol style="list-style-type: none"> <li>1. In progress.</li> </ol>
Digital Services		<ol style="list-style-type: none"> <li>1. Provide innovation kit and new digital assets to offices, giving them access to the best tools possible to present wool and help close potential partners</li> <li>2. Improve ability for true global audience to access and engage with our digital platforms regardless of location or language.</li> <li>3. Develop digital learning and training platforms to engage with consumers students and brands.</li> <li>4. Roll out new automated CRM layer to underpin all digital activity across the business and improve operational efficiencies.</li> <li>5. Begin to source key partners in adaptive clothing space.</li> </ol>	<ol style="list-style-type: none"> <li>1. On target</li> <li>2. On target.</li> <li>3. On target.</li> <li>4. On target.</li> <li>5. On target.</li> </ol>



## 7. AWI report back – WoolQ update

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**TITLE:** WoolQ update

**DATE:** 10 October 2018

### WoolQ update

WoolQ has recently released three new tools available for immediate use; the 'Industry Network Forum', 'My WoolQ' and 'Ready Reckoner'.

- The 'Industry Network' tool has two sections: The 'Forum' is a meeting place where woolgrowers, classers, brokers and buyers can connect to share ideas, experiences and learnings. The 'Directory' offers them the ability to build rich profiles that tell compelling provenance stories showcasing their unique product to a global audience.
- The 'My WoolQ' tool provides a central archive of all clip information with simple comparative tools to see what's happening from one season to the next. Broker integration is required to access the full suite of tools.
- The 'Ready Reckoner' tool has two sections: 'Market Analysis' allows an instant estimate of the value of the clip from up-to-date market pricing. 'Market Results' allows growers to see recent sale prices to benchmark and evaluate the clip performance against similar wool in the market.

The eSpeci has also been updated since its launch earlier this year, so WoolQ now supports all stages of the wool growing cycle. The diagram below illustrates each stage of the wool-growing cycle and the corresponding WoolQ tool. The last phase of development in the WoolQ platform will focus on the selling stages of the cycle. The WoolQ Market is scheduled for release later in 2018.



Woolgrowers can find out about new tools on the updated website and watch the new overview video at [www.woolq.com](http://www.woolq.com)

A WoolQ brochure is available at Attachment 7.1 for you to share with your organisation and members.

If your members have any questions they can contact the WoolQ team at [info@woolq.com](mailto:info@woolq.com) or phone 1800 070 099.

## **Attachments**

- 7.1 WoolQ brochure







# Be the first in the 'Q'

Join now at [www.woolq.com](http://www.woolq.com)

# WOOLQ

THE WOOL EXCHANGE PORTAL

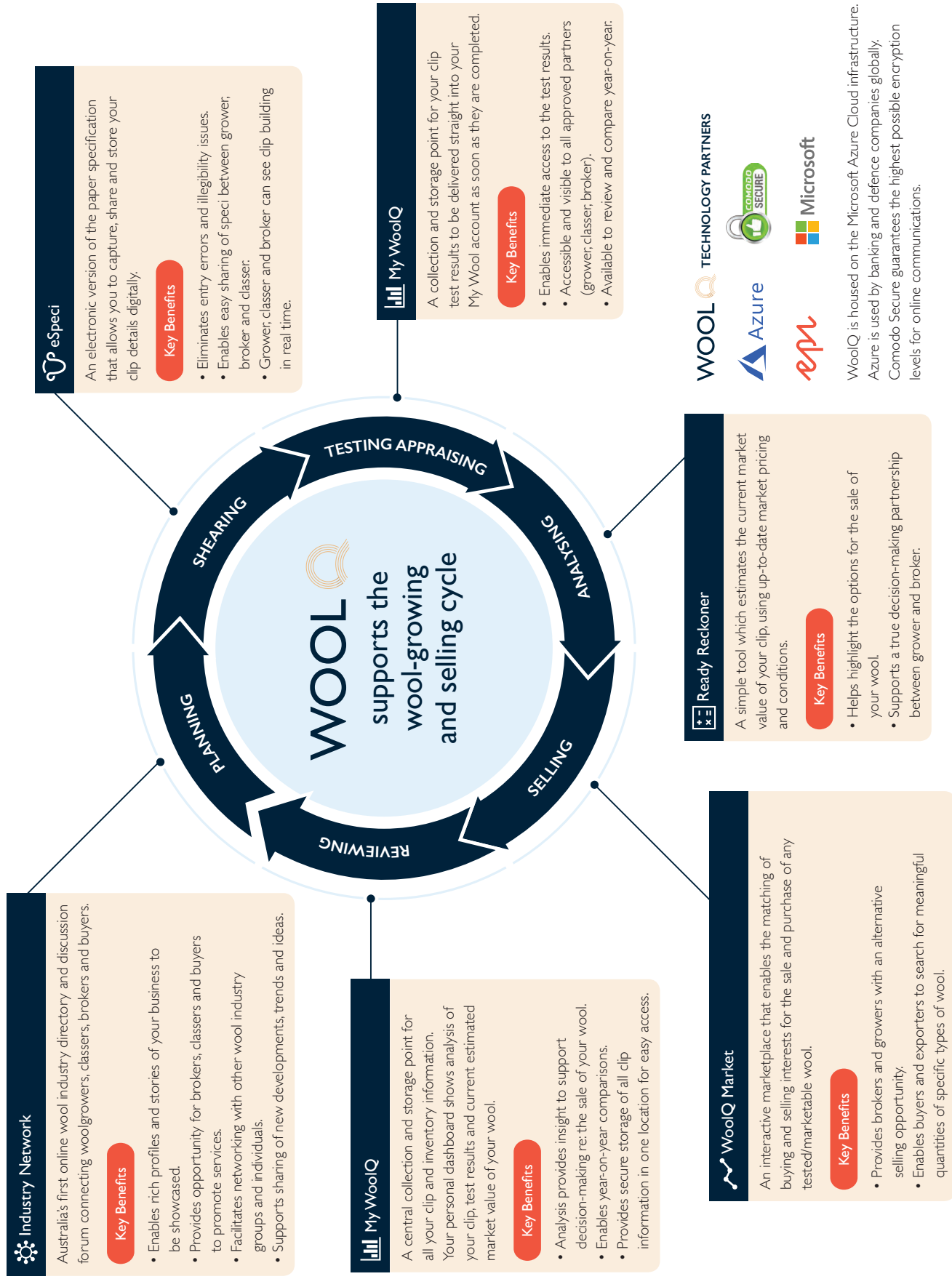
Creating opportunities | Increasing efficiencies | Securing the future

WoolQ is an Australian Wool Innovation program. This information sheet is a general guide and should not be relied on as specific advice. To the extent permitted by law, we exclude all liability for loss or damage arising from the use of the information in this publication. GD2940





Free tool. Register now at [www.woolq.com](http://www.woolq.com)



WOOLQ TECHNOLOGY PARTNERS



WOOLQ is housed on the Microsoft Azure Cloud infrastructure. Azure is used by banking and defence companies globally. Comodo Secure guarantees the highest possible encryption levels for online communications.

WoolQ is an exciting new resource for the Australian wool industry. It is an online platform that allows woolgrowers and industry participants to easily harness digital efficiencies across the wool-growing and selling cycle. Its goal is to facilitate digital communication and exchange to leverage new opportunities. WoolQ will continue to evolve to help secure the future of the industry.

WoolQ supports the growing and selling cycle across all key stages: planning, shearing, testing and appraising, analysing, selling and reviewing. The diagram illustrates each stage of the wool-growing and selling cycle and its corresponding WoolQ tool. Under the tool icon and title, you'll find a description with the features and benefits to the woolgrower and the broader industry.

[www.woolq.com](http://www.woolq.com)  
Contact us at  
[info@woolq.com](mailto:info@woolq.com)  
or call us  
on 1 800 070 099