



awi Australian Wool
Innovation Limited

JUNE ICC MEETING

20 JUNE 2018

Meeting agenda

AWI Woolgrower Industry Consultative Committee (ICC)

Wednesday, 20 June 2018, 8.30am – 3.05pm

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

Dinner: 7pm, 19th June 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

TIME		AGENDA ITEM	DISCUSSION LEAD
8.00 – 8.15	1	Welcome and general business 1.1 Review minutes from previous meeting 1.2 Review actions from last meeting	Wal Merriman
8.15 – 9.35 (10 mins each member and 20 mins for guest participant)	2	ICC members report on their members' R&D and marketing priorities for AWI 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 Don Brown Ewe Competition	ICC members
9.35 – 10.05	3	ICC member agenda items – request for briefing from AWI on issues 3.1 ASWGA 3.2 WoolProducers Australia	ICC members
10.05 – 10.20	Morning tea		
10.20 – 10.50	4	Update from Department of Agriculture, Water and Resources	Andrew McDonald, DAWR

SESSION 2: AWI report on priorities and performance

10.50 – 11.50	5	AWI report back – WoolPoll 2018 update and levy rate deliberations <i>- invite discussion and input</i>	Wal Merriman, Colette Garnsey
11.50 – 12.20	6	AWI report back – Review of Performance update <i>- invite discussion and input</i>	Peta Slack-Smith
12.20 – 12.50	Lunch		
12.50 – 1.50	7	AWI report back – on farm R&D <i>- invite discussion and input</i>	Jane Littlejohn

1.50 – 2.20		AWI report back – market analysis <i>- invite discussion and input</i>	Scott Carmody
2.20 – 3.00		AWI report back – Processing Innovation & Education Extension <i>- invite discussion and input</i>	Julie Davies
3.00 – 3.05	8	Summary and close	Wal Merriman

ATTENDEES

Representative	Position	Organisation
Wal Merriman	Chair	AWI
Peter Meyer	President	Australian Association of Stud Merino Breeders
Cathy Hayne	Treasurer	Australian Superfine Woolgrowers Association
Martin Oppenheimer	Representative	Australian Wool Growers Association
Nick Cole	Representative	Broad wool breeds
Chris Patmore	Representative	Pastoralists and Graziers Association of Western Australia
Ed Storey	Vice President	WoolProducers Australia
Tom Kirk (Guest Participant)	Representative	Don Brown Ewe Competition (NSW)
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

1. February ICC Meeting Summary and Action Items

TITLE: Meeting Summary and actions items arising from February ICC Meeting

DATE: 20 June 2018

FEBRUARY ICC MEETING SUMMARY

- The draft meeting summary from AWI's ICC meeting on 16 February 2018 ([Attachment 1.1](#)) was circulated to all members on **15 March**, along with a copy of the Beyond the Bale article explaining the outcome of the AWI AGM mail investigation ([Attachment 1.2](#)) and the MLA / AWI New Zealand Research Trip Report ([Attachment 1.3](#)), as requested at the February meeting.
- ICC members were requested to provide any comments or feedback on the summary to AWI by **22 March**.
 - No members requested any changes be made, and the summary was finalised and uploaded to www.wool.com on **10 April**.

FEBRUARY ICC MEETING ACTION ITEMS

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

ACTION ITEM	STATUS	COMMENT
AWI to circulate results of investigation into missing AGM 2017 ballot papers	Completed	AWI circulated Beyond the Bale article explaining results with draft meeting summary on 15 March (Attachment 1.2).
AWI to circulate copy of AWI's report on the MLA/AWI research trip to New Zealand.	Completed	AWI circulated report with draft meeting summary on 15 March (Attachment 1.3).
ICC members to write joint letter to AWEX to raise wool classing issues and line preparation questions directly.	Completed	AWI posted letter on 19 March 2018. AWGA's signature was not on the letter as it was not sent through to AWI.
Request for brief on research into lanolin.	Completed	Advice on research being undertaken by AgResearch NZ provided at Attachment 1.4 .
AWI to measure how much MLP data has not been analysed because it cannot be submitted to Sheep Genetics as AWI doesn't have an agreement with MLA or with AGBU	Completed	<ul style="list-style-type: none"> • All phenotypic data from New England, Macquarie, MerinoLink and Pingelly sites has been sent to Sheep Genetics • All phenotypic data from the Balmoral 2016 drop has been sent to Sheep Genetics

		<ul style="list-style-type: none"> • All phenotypic data from the Balmoral 2015 drop up to 2yo (March 2017) has been sent to Sheep Genetics • Phenotypic data not sent to Sheep Genetics is the Balmoral 2015 drop data since March 2017. Soon to be collected lambing data on the 2016 drops at Balmoral, Pingelly and MerinoLink will also be held up until IP and analysis agreement is approved. • No 15K SNP (DNA) data has been submitted to Sheep Genetics from any sites. <p>Negotiations are occurring between UNE, NSW DPI, AGBU, MLA and AWI staff where in principle agreement on IP and analysis options have been reached but the fine detail requires further negotiation.</p> <p>The Sheep CRC until very recently has required that the ownership of AWI's SNP data be transferred to SCRC ownership when submitted to Sheep Genetics. An outcome with AWI retaining IP ownership is now likely.</p>
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ATTACHMENTS

- 1.1 AWI February ICC Meeting Summary
- 1.2 Beyond the Bale article explaining the outcome of the AWI AGM mail investigation
- 1.3 MLA-AWI New Zealand Research Trip Report
- 1.4 Brief on research into lanolin

AWI Woolgrower Industry Consultative Committee (ICC)

MEETING SUMMARY – 16 February 2018, AWI Office, Sydney



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

Representative	Position	Organisation
Wal Merriman	Chair	AWI
Angus Beveridge	Representative	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
Richard Halliday	President	WoolProducers Australia
John Ferrier (Guest Participant)	Vice Chair	Birchip Cropping Group
Robert Pocock (Guest Participant)	Representative	Mallee Sustainable Farming Group
Andrew McDonald	Assistant Secretary	Department of Agriculture and Water Resources
Stuart McCullough	CEO	AWI
Peta Slack-Smith	General Manager Corporate Affairs & Market Access	AWI
Emma Gittoes	Corporate Affairs Manager	AWI

Welcome and general business

1.1 Review minutes from previous meeting

- Members endorsed the minutes from 12 October 2017 meeting with no issues raised.

1.2 Review actions from last meeting

- In response to the Action Item from the October meeting for ICC members to write to AWEX regarding wool classer training, there was concern that AWI should have circulated the letter sooner.
- All other action items were confirmed to be completed or addressed with no issues raised.

ICC members report on their members' priorities

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.

Birchip Cropping Group (BCG) – John Ferrier (guest participant)

Priorities for AWI:

- Genetics – breeding fit for purpose sheep. Selecting ewes with high wool production as well as fast growing lambs. Need to increase weaning rates of Merino lambs to rebuild Merino ewe numbers.
- Using EID to develop walk over weighing to monitor animals in paddock that are usually too far to bring back to yards and Smart Shepherd smart tags for pedigree matching.
- Need for more technology to entice young people into the industry.
- Barber's pole also noted as increasingly becoming an issue.
- Need for evaluation of twice-yearly, or three-in-two-year, shearing in mixed farm enterprises.
- Development of virtual fencing for mixed farming sheep systems.
- Feedbase
- Sheep Showcase field day

Mallee Sustainable Farming Group (MSF) – Robert Pocock (guest participant)

Priorities for AWI:

- Managing seasonal variability - improving adaptability and risk management.
- Farm efficiency and effectiveness - timeliness of operations, more hectares, less labour.
- Pasture establishment and productivity on sands - legumes, nutrition, weeds, herbicide residues
- Best 'bang for buck' with technology
- Strategic farm issues - expansion, machinery & capital, succession, labour
- Novel pasture and grazing systems:
 - Sandy soil adaptation
 - Pastures with greater winter production
 - Hard seeded varieties for seedbank persistence
 - Early maturing pasture species
 - Aerial podding for harvestability
 - Ability to twin sow species
- Grazing management - role of virtual fencing
- Pasture management and herbicides - managing residues and weed control options
- Loss of livestock management knowledge – deteriorating infrastructure, appears too hard - need for extension with the swing back to livestock phenomenon that is happening in the Mallee area
- Medics in a cropping system - understanding benefits, adaptability in a no-till system
- Need for more shed staff and training
- AWI's Lifetime Ewe Management program is good, however needs greater tailoring capacity to suit mixed farms

Australian Association of Stud Merino Breeders (AASMB) – Angus Beveridge

- Affirmed that all the priorities listed from 2017 in the AWI briefing pack are still relevant.

- Concerns around classers borrowing stencils.
 - While it was acknowledged that this is a longstanding concern, this was understood to be an issue for AWEX rather than AWI.
- Need to get away from bending over shearing sheep. Wool harvesting needs to be more efficient and attractive to new entrants.
- Concern that co-funders of AWI's Artificial Insemination (AI) project are not being adequately credited.
 - AWI updated it's AI brief in January to reflect the contribution of the NSW Stud Merino Breeders Association.

Australian Superfine Wool Growers Association (ASWGA) – Danny Picker

- Affirmed that all the priorities listed from 2017 in the AWI briefing pack are still relevant.
- Acknowledged the information AWI provided in the briefing pack in response to agenda items raised before the meeting. Issues included:
 - Supply, demand and fibre advocacy for superfine wool
 - Research into highly resistant and susceptible sheep for breech flystrike
 - Communicating genetic research to woolgrowers
 - Understanding availability of shearing and shed-hand staff
 - Request for research into the development of 'cost effective' mechanised sheep handling equipment
 - Alternative wool harvesting methods and re-visiting BioClip
 - Impact of feral animals, and growing issue with deer
 - AWI encourages ICC members to share the briefing packs with their members. AWI is also available to brief members' Boards/Committees on AWI's R&D and marketing activities.

Australian Wool Growers Association (AWGA) – Martin Oppenheimer

- Concerns raised regarding potential conflict of interest arising with the AWI Chair voting on genetics research, particularly with the Board's decision to discontinue funding of Sheep Genetics.
 - AWI has a comprehensive Conflicts of Interest Policy for Directors and Officers. Consistent with this Policy, the AWI Chair first made a personal interest declaration upon his appointment as Director, has reviewed his interests since that time, and has absented himself once from a board meeting to avoid a conflict or perceived conflict of interest.
 - In regard to AWI's investment in genetics, since 2001/02, AWI has invested \$38.5 million into breeding, genetic and genomic projects to develop the tools woolgrowers can use to enhance their personal breeding objectives of their sheep (representing 15% of AWI's annual on farm R&D budget). AWI noted that it balances its investment across a range of objective (70%) and subjective (30%) genetics tools and programs to assist growers. AWI noted that in 2017, funding to Sheep Genetics was discontinued as AWI's priority is to fund R&D and not the commercial overheads of the organisation. AWI will consider funding any R&D proposals from Sheep Genetics.
- Concerns raised around the transparency of AWI's AGM election processes and proxy voting.
 - AWI advised that, with reference to AWI's Constitution and the Corporations Act, the AWI Chair is not required, and it is his decision, to disclose how he casts undirected proxies. The requirement to disclose how a Chair directs proxies is a requirement for listed companies, and AWI is not a listed company. It is individual shareholders choice whether they vote, whether they

- appoint a proxy, and if so, whether they lodge their proxies as directed or undirected.
- Request for information on AWI's investigation into those shareholders who did not receive their AGM voting papers.
 - AWI provided a report back in the meeting briefing pack on this matter. The outcome of AWI's investigation will be published in the next edition of Beyond the Bale and circulated to ICC members.
- Concerns were raised that there are delays in processing data for the Merino Lifetime Productivity (MLP) blood cards due to unresolved negotiations over data ownership.
 - AWI advised that negotiations with MLA are progressing very well but have not yet been finalised, and AWI are waiting for MLA to respond. Negotiations with Sheep CRC on genotyping from blood cards have recently commenced. AWI will seek an update on the status of whether data is being delayed to better understand the extent of the problem.
- Question raised as to why the WoolPoll Panel are not able to recommend the levy rates for woolgrowers to vote on at WoolPoll.
 - AWI advised the *Wool Services Privatisation (Wool Levy Poll) Regulations 2003* require AWI to propose three to five levy options to be polled (including zero), and also provide a levy rate recommendation, with rationale for AWI's recommendation. Under the Regulations, the role of the Panel is to examine and assess the draft forms and process for conducting the ballot as appropriate. AWI will consult with industry on the range of rate options they would like included and advised ICC members to send through three to five levy rate options to assist the Board's decision making.

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

- Affirmed that all the priorities listed from 2017 in the AWI briefing pack are still relevant.
- Support AWI's LTEM program, however noted issues around finding growers to convene groups.
- Would like to see AWI's vertebrate pests investment extend to kangaroos and deer.
 - AWI provided a report back in the meeting briefing pack on this matter. AWI has prioritized predation from pests for its investment, as opposed to grazing pressure, as wild dogs have been known to destroy an enterprise within a few years of intense predation. AWI invests in rabbit projects with the Centre for Invasive Species Solutions (CISS) that align with AWI's Strategic Plan. During the researcher negotiations for the CISS, government investment was re-distributed from wild dogs into deer. AWI can keep the ICC up to date with deer research through its CISS contacts as requested.
- Concerns that there is no category for unskirted fleeces that have been well-prepared.
 - WPA noted that AWEX is currently looking at code of practice and that a proposal for 'prepared but unskirted' category has been put forward as submission, requiring a change to code, if endorsed.
- Request AWI continue to have a broad wool focus across marketing and product innovation.
 - Several of AWI's investment activities in the broad wool area were highlighted in the meeting briefing pack. One of AWI's new focus areas is the global automotive interiors market using 23-28 micron.

Pastoralists and Graziers of WA (PGA) – Clinton Ayers

- Priorities for PGA are in on farm and reducing cost of production.

- Support AWI's shearer training and request continued investment into wool harvesting alternatives.
- Concerns raised around contractors not employing learner shearers and suggested AWI consider financial incentives to contractors for employing learner shearers.
 - AWI's investment in shearer training is aimed at attracting and retaining shearers in the industry. AWI has recently been looking at project proposal that targets getting young shearers into employment.
- Would like to see more investment in breech modification R&D to address flystrike.
 - AWI has a comprehensive investment strategy into flystrike prevention, with 35% of the strategy's funding directed to research into breech modification developments. AWI noted that a new R&D focus will be into the blowfly.
- Support AWI's ongoing funding into wild dog control.
- Concerns that WoolQ will not include AWEX data.
 - AWI is working to ensure WoolQ incorporates data from right across the industry. AWI is currently trialling the E-Speci function on WoolQ, which is due to be launched in the next month.

WoolProducers Australia (WPA) – Richard Halliday

- Affirmed that all the priorities listed from 2017 in the AWI briefing pack are still relevant.
- Request AWI to review WA Shearing Industry Association's (WASIA's) shearing shed safety proposal.
 - AWI noted in the Action Items that AWI met with the Chair and CEO of WASIA to discuss the project proposal. WASIA were encouraged to resubmit a revised project proposal that has the capacity for cost-effective national roll-out and a train-the-trainer component. Once received, AWI will review the project proposal as per its normal process.
- Noted that WPA are currently working to have wild pigs categorised as feral pests, the same as wild dogs.
- WPA encourage growers to complete the OJD survey.

Update from Department of Agriculture, Water and Resources

- In response to Action Item for DAWR to report back to ICC on potential for national approach to OJD, DAWR noted that a Commonwealth response is not possible as disease management is divided amongst the State (endemic diseases) and Commonwealth Governments (exotic diseases).
- New Minister for Agriculture and Water Resources is particularly aware of wild dog issues facing the industry.
- New foreign investor rules relating to the purchase of agricultural land dictate that sales have to go through on-market (advertised) process. DAWR is keen for feedback on implications for the members of ICC members.
- Budget process, which commenced in October 2017, is currently at decision-making point to determine priorities.

AWI report back - current activities and finances

AWI briefed ICC members on the following:

- AWI's finances and the modelling and forecasting that underpins the budget setting process. The briefing from AWI's Chief Financial Officer also included initial modelling into different levy rates that the Board are considering for WoolPoll.
- AWI's on-farm R&D activities in the Sheep Production portfolio.

- WPA requested report on the outcomes of the MLA-AWI trip to New Zealand to explore mulesing issues.
 - AWI noted that it would circulate its report.
- ACA asked whether AWI's current investment for new worm tests did larval differentiation.
 - AWI advised that they only do egg count. AWI are currently receiving proposals for projects on better worm testing.
- MSF queried whether there has been any research into lanolin.
 - AWI noted that they would provide advice on research being undertaken by AgResearch NZ.
- PGA noted that Q Fever is increasingly an issue.
 - WPA noted that they have it on their agenda to address.
- An update on the independent Review of Performance to be undertaken this year, as well as an update on global supply chain insights regarding animal welfare.
- An overview of WoolPoll 2018, the appointment of the WoolPoll Panel, and the roles and responsibilities for AWI and the Panel.
- A demonstration of AWI's microwave technology and ear tag technology.
- AWI's marketing activities, including an overview of the objectives, insights (such as 'belief marketing') and strategy (such as supply chain transparency) guiding AWI's marketing investment decisions.

APPOINTMENT OF THE WOOLPOLL PANEL

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

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

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

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


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

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

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

INDEPENDENT REVIEW OF AWI'S PERFORMANCE

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

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

AGM MAILING

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

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

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

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

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

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

CONCLUSIONS AND ACTIONS

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


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

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

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

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

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

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

ATTACHMENT 1.3

MLA TRIP REPORT Sheep welfare investigative delegation: New Zealand

1. Executive Summary

A delegation including MLA staff, Jim Rothwell, Jax Baptista and Mary Johnson, an MLA PhD student interested in bobby calves (Natalie Roadknight), AWI staff, Geoff Lindon and Bridget Peachey, and Stephen Crisp, SPA, travelled to New Zealand in early December with the principle objective of understanding the phase out of mulesing in the NZ merino industry. The trip included meetings with representatives from Beef and Lamb NZ, NZ Meat Industry Association, NZ Federated Farmers, NZ Ministry of Primary Industries, NZ Merino and sheepmeat and wool growing producers.

Mulesing ban

In 2007 the New Zealand Merino industry identified customer sensitivity towards mulesing and NZ Merino ceased buying wool from mulesed sheep. Citing international customer animal welfare concerns and driven market pressure, the merino industry adopted a voluntary ban on surgical mulesing in December 2010.

In 2015 the Ministry of Primary Industries commenced a review of the New Zealand Animal Welfare Act (1999). The revised Act will include ninety enforceable regulations and (at the request of industry) from 1 October 2018 mulesing will be a criminal offence.

Merino industry

The NZ merino industry is small, with approx. 2 million Merinos predominantly in the South Island high country.

Fly waves are less intense in the South Island of New Zealand than is usual in Australia. Blowfly challenge occurs in late spring / early summer for breech strike, and again in autumn, principally body strike. Blowfly strike on the South Island is comfortably controlled by an additional crutching and a long acting pour-on, costing about \$2 p.a./head

Wool is predominantly forward contracted (75%) for five to ten years, securing supply and price. NZ Merino figures indicate value chain benefits to wool producers of \$100 million above spot price since 2010.

Eighty percent of fine wool (up to 23 micron) is sold via NZ Merino, for customers Icebreaker and Smart Wool. These brands don't accept mulesed wool and produce top end premium sports clothing. NZ Merino said that when they require additional fine wool they source from South Africa (not Australia), due to the customer requirement for non-mulesed wool. The wool industry acted in a unified and proactive way. It seized the opportunity to differentiate from Australian fine wool on a provenance basis.

2. Details

Beef + Lamb NZ, NZ Meat Industry Association, NZ Federated Farmers

Objective	The NZ approach to animal welfare (including the regulation changes), from both an on-farm and market access perspective. From an on-farm perspective, understanding the drivers behind NZ's phase out of mulesing and other painful procedures.
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	Opportunities to work together on communications, particularly in light of parallel EU FTA negotiations.
Attendees	Jim Rothwell, Jax Baptista, Mary Johnson (MLA), Natalie Roadknight (MLA PhD student), Geoff Lindon, Bridget Peachey (AWI), Stephen Crisp (SPA), Dave Harrison, Chris Houston, Rowena Hume, Swetta Magan (Beef + Lamb), Richard McColl, Sirma Karapeeva, Matt Conway (MIA), Sarah Crofoot (NZ FF)
Outcome	<p>Mulesing was dealt with a long time ago – big issues for NZ are bobby calves and environmental degradation associated with dairying (e.g. waterways). NZ kills 1.7 million bobby calves in 10 weeks / year. Identified as the biggest threat to social licence and community distrust</p> <p>90% of NZ red meat is exported – industry is very international customer focused</p> <p>International negative image of dairying has an impact on all NZ farming</p> <p>Welfare Regulations Oct 2018: compulsory pain relief for disbudding, dehorning and castration – driven by dairy industry, not necessarily seen to be suitable for beef industry (due to requirement for vet on farm)</p> <p>Compliance and customer audits are prevalent for NZ meat producers. NZ Farm Assured Program is streamlining the industry auditing systems and creating a baseline for all NZ red meat production. Funded by Red Meat Profit Partnership (industry, government).</p> <p>Discussion about “parallel” negotiations for Australian and NZ FTA with EU. A-NZ agree on approach to conversations around animal welfare outcomes, environmental practices and quality standards (seeking equivalency of systems); continue collaboration on ensuring no in-text reference to welfare / environment</p>
Next Steps	Ongoing engagement with B+L NZ re A-EU FTA / NZ (Dave Harrison and replacement Trade Advisor)

Bill Pomroy, Massey University

Objective	Understand fly control and dag control in NZ sheep operations
Attendees	Jim Rothwell, Jax Baptista, Mary Johnson (MLA), Natalie Roadknight (MLA PhD student), Geoff Lindon, Bridget Peachey (AWI), Stephen Crisp (SPA)
Outcome	<p>New Zealand sheep operations control flies and dags using the same method as Australian producers (e.g. spray races and effective chemicals)</p> <p>There is no blow fly R&D capacity in NZ</p>

Kevin Stafford, Massey University

Objective	Science base around regulatory changes
Attendees	Jim Rothwell, Jax Baptista, Mary Johnson (MLA), Natalie Roadknight (MLA PhD student), Geoff Lindon, Bridget Peachey (AWI), Stephen Crisp (SPA)
Outcome	<p>The NZ Codes of Animal Welfare were advisory rather than regulatory</p> <p>Through the revised Animal Welfare Act there will be a list of “finable offences” with the first tranche being implemented Oct 2018</p> <p>Previously NZ has had difficulty securing convictions through the courts, hence desire to have “on the spot fines” for offences that can be objectively identified</p> <p>There is no pain relief product currently registered in NZ for sheep</p>

Property tours: Morrison Farms

Objective	On-farm perspective of fly management
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Attendees	Jim Rothwell, Jax Baptista, Mary Johnson (MLA), Geoff Lindon, Bridget Peachey (AWI), Stephen Crisp (SPA), Richard and John Morrison (Morrison Farms)
Outcome	Parasite control under control. Problems with perinatal lamb mortality. Moved away from fine wool production in the North Island due to flies Production systems use breeds suitable to the area / region Ram lambs are left entire for slaughter purposes (slaughter before 6 months old)

NZ Ministry of Primary Industries

Objective	Understand NZ Animal Welfare Act and regulations, industry consultation and engagement, lessons and learnings in hindsight, producer insights
Attendees	Jim Rothwell, Jax Baptista, Mary Johnson (MLA), Natalie Roadknight (MLA PhD student), Geoff Lindon, Bridget Peachey (AWI), Stephen Crisp (SPA) Shari Mannon, Harry, Mark, Jen Jamieson, Chris, Rob (NZ MPI), Chris Houston (B+LNZ)
Outcome	Animal Welfare Act timeline and process Ministry for Primary Industries is revising the Animal Welfare Act, including regulating 90 minimum standards (from 1200 minimum standards) from the Codes of Animal Welfare. These regulations have fines and criminal sanctions associated with breach. One reason for the regulations is that there were no statutory penalties for breach of code, and public perception was that they weren't enforcing the code Mulesing is in the first tranche of regulations - from 1 October 2018, mulesing (surgical, chemical, clips etc.) will be a criminal offence: fines of \$5000 individual, \$25,000 Revised Act is with parliamentary drafting office currently, and has already been signed off by Cabinet and Parliament Enforcement of regulations is managed by MPI: 25 inspectors nationally for enforcement, seeking compliance, not about prosecutions. Companion animals managed by SPCA National Animal Welfare Advisory Committee – independent committee that advises the Minister on animal welfare matters and reviews codes of welfare. MPI acts as its secretariat. The process of drafting the act involved wide consultation including NZ vet association, SPCA and a regional community consultation process (6 meetings). Beef and Lamb NZ and NZ farmers were integral and consulted. The sheep industry asked that mulesing be formally banned

Property tours: South Island

Objective	On-farm perspective of fly management
Attendees	Jim Rothwell, Jax Baptista, Mary Johnson (MLA), Geoff Lindon, Bridget Peachey (AWI), Stephen Crisp (SPA), Emma Wilding (NZ Merino), Stonyhurst Station (John and Charles Douglas-Clifford), Cleardale Merino Stud (Ben Todhunter) and Glenaan Station (Paul Ensor)
Outcome	Scobie sheep "Uglies" – short tail and bare breech Southern Cross breed – "fine wool" animal being bred for the North Island with a strong selection pressure for resistance to footrot. Stonyhurst had a dedicated focus on the collection of data Primarily wool producers however all properties had half and three-quarter breeds

	<p>Footrot was identified as a problem for all. Cleardale were plunge dipping sheep – for lice and fly control</p> <p>Ben commented that his neighbour, a marketing executive commented that mulesing is unacceptable and welfare a big issue...</p> <p>Lice control a particular issue due to feral sheep in hills and poor boundary fencing</p> <p>All three ceased mulesing prior to 2010 – now see it as a non-issue. Ben commented that they adopted mulesing due to a manager at the time.</p> <p>Paul recently came to NSW on Merino breeders trip – commented on mulesing with surprise and horror</p>
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NZ Merino

Objective	Understand NZ Animal Welfare Act and regulations, industry consultation and engagement, lessons and learnings in hindsight, producer insights
Attendees	<p>Jim Rothwell, Jax Baptista, Mary Johnson (MLA), Geoff Lindon, Bridget Peachey (AWI), Stephen Crisp (SPA)</p> <p>Mark Ferguson, Dave Maslen, Emma Wilding (NZ Merino), David Scobie (AgResearch)</p>
Outcome	<p>Icebreaker brand led the charge on non-mulesing (owned by NZ Merino)</p> <p>Clear commercial value proposition for NZ merino industry to cease mulesing</p> <p>~10 merino wool growers continue to mules in South Island (McKenzie region). These wool growers are selling product through other traders, including Melbourne.</p> <p>Note lots of Australian bloodlines and Australian classers in NZ Merino industry</p> <p>75% of wool forward contracted</p> <p>ZQ audit – at least annually and incorporates environmental and welfare aspects, “insurance policy that people wanted”</p> <p>Pain relief is not compulsory yet (via ZQ) – but as soon as it is “available and practical” it will be compulsory (pain relief for sheep not available)</p>

ENDS

ATTACHMENT 1.4

Attachment 1.4 - Recent research related to lanolin

Most of recent research into lanolin is being undertaken by AgResearch in New Zealand.

With falling prices for coarse wool, countries such as NZ have been strongly motivated to identify new, non-apparel, uses for wool and lanolin. As Australian coarse wool benefits from this research, it is considered unnecessary for AWI to replicate it at this stage.

Advice from AgResearch to AWI is that their areas of research have been focusing on personal healthcare. They have worked on formulation and testing of products using lanolin as a base for natural personal care and healthcare products such as keratin / seaweed / indigenous plant extracts and testing of their efficacy.

Other areas of research have been focusing on collecting more lanolin from the scour liquor. They report that to this end they have been very successful, with more being extracted from the liquor and less environmental impact. Trials are continuing to remove other high value products from the liquor also, which is technically very challenging.

Another area is the commercial use of lanolin, with AgResearch undertaking co-designed development and formulation trials that allow the products to work under very differing environments. They have worked successfully to develop commercial lubricants and anti-rust treatments (see <http://www.prolan.co.nz/>), as well as bicycle lubricants that use lanolin.

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

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

DATE: 20 June 2018

ICC members are asked to provide feedback to AWI on their organisations' R&D and marketing priorities for AWI. The below lists the priorities raised by each organisation at previous ICC meetings.

Australian Association of Stud Merino Breeders

Role of Organisation

AASMB aims are to encourage, promote and foster the breeding and improvement of Merino and Poll Merino stud sheep, and to publish a register of these sheep in Australia.



Priorities for both AWI and the wool industry:

- Encouraging growers to increase or reintroduce Merinos
- Animal welfare
- Ovine brucellosis
- Need for basic training and encouraging young people to get into the industry – need to make sheep production easier (handling, wool harvesting)
- Ensuring membership of ICC is truly representing woolgrowers Australia-wide
- Need for more wool classers
- Foot rot
- Lice
- Encouraging members to use pain relief if mulesing
- Improving Artificial Insemination results
- National approach to OJD

Australian Superfine Woolgrowers Association

Role of Organisation

ASWGA represents a collaboration of membership of growers and their special global processor and manufacturing members, while providing a direct link between superfine growers and their customers, and the opportunity to create transparency throughout the supply chain.



Priorities for both AWI and the wool industry:

- Viability of the superfine sector
- Reducing costs of production, particularly wool harvesting costs

- Animal welfare
- Developing tools/information for growers looking to go non-mulesed
- Working with retailers to implement a rebate scheme for non-mulesed wool
- Advantages of the Wool Exchange Portal
- Fibre advocacy and research into therapeutic uses of wool
- Responsible Wool Standards
- Adequate wool classer training
- Climate change
- Concerns with increased use of chemicals for flystrike protection
- Smart ear tags
- Quick on-farm worm culture tests
- Support for AWI's Lifetime Ewe Management program
- Promotion of wool as a luxury fibre
- Support for IWTO's Sustainable Working Group
- Retailer training
- Availability of LTEM nationwide

Australian Wool Growers Association

Role of Organisation

AWGA was formed to represent wool growers and be a strong and independent voice. AWGA has been set up on a national platform to give wool growers and industry members direct and easy representation to AWI, governments, media and through the wool industry pipeline.



Priorities for both AWI and the wool industry:

- Industry decline – sheep numbers and wool producers
- Requested AWI Board mandate pain relief
- Need to encourage more young growers into the industry
- Need for an independent Chair of the ICC
- Re-instatement of the Wool Carbon Alliance
- Animal welfare and animal rights campaigns
- R&D in innovative shearing technology
- Vertebrate pest control and terminal breeding programs
- Improving consultation
- Effective monitoring and evaluation of projects
- Uptake of breeding and breech modification alternatives for flystrike prevention
- Encouraging members to use pain relief if mulesing
- Ear tag technology

Broad wool breeds

Role of Organisation

The Australian Corriedale Association represents broad wool breeds and consults with groups such as the Australian Stud Sheep Breeders Association.



Priorities for both AWI and the wool industry:

- Flame-resistant rating of fibres taken into consideration on fire ratings for buildings
- Marketing of the benefits of wool in industrial sector
- Adequate wool classer training
- Vertebrate pest control
- Preparing better lines to attract a premium
- Wool Exchange Portal selling opportunities
- Need to encourage more young growers into the industry

Pastoralists and Graziers Association of WA

Role of Organisation

PGA aims to ensure the prosperity and long term viability of members, the agricultural and associated industries, by providing an effective voice statewide and federally through a financially sound, efficient, free enterprise organisation with strong leadership



Priorities for both AWI and the wool industry:

- Explaining to growers the value and benefits of AWI's marketing activities
- Clarifying the levy investment process
- Flystrike
- Ovine brucellosis
- Wild dogs
- Don't support more investment in marketing over R&D
- Reducing costs of production
- Explaining to growers the value and benefits of AWI's marketing activities
- Clarifying the levy investment process
- Flystrike
- Ovine brucellosis
- Wild dogs
- Don't support more investment in marketing over R&D
- Reducing costs of production

WoolProducers Australia

Role of Organisation

WPA plays a key role in working with organisations that are financed by grower funds - whether they are compulsory levies or fees for service - to develop constructive and profitable outcomes for industry.



Priorities for both AWI and the wool industry:

- Maintaining NLIS and maintain mob-based system
- Drugs and alcohol in the shearing and wool handling industry
- IWTO Specifications
- Increasing use of NWD
- Encouraging the next generation of growers and leadership in the industry
- Responsible Wool Standards
- Foot rot
- Sheep Health Program
- Revision of Sheep Health Statement (to become Declaration)
- Maintaining NLIS and maintain mob-based system
- Drugs and alcohol in the shearing and wool handling industry
- IWTO Specifications
- Increasing use of NWD
- Encouraging the next generation of growers and leadership in the industry
- Responsible Wool Standards
- Foot rot
- Sheep Health Program
- Revision of Sheep Health Statement (to become Declaration)

Don Brown Ewe Competition

Tom Kirk from Don Brown Ewe Competition has been invited to the June ICC meeting as a guest participant. A verbal briefing will be provided at meeting.

Attachments

- **2.1** R&D priorities identified in AWI's consultation and integration into AWI's AOP 2017/18

R&D PRIORITIES IDENTIFIED IN AWI'S CONSULTATION AND INTEGRATION INTO AWI'S AOP 2017/18 ATTACHMENT 2.1

ICC members' priorities identified	Priorities identified in other grower consultation	Integration of these priorities in AWI's AOP 2017/18
<ul style="list-style-type: none"> Animal welfare Flystrike Wild dog and other vertebrate pest control Diseases – ovine brucellosis, foot rot, OJD Lice Expanding LTEM program Genetics and genomics 	<ul style="list-style-type: none"> Lamb survival Reproduction Weaner management and early weaning Wild dogs – fencing, baiting Diseases – ovine brucellosis, footrot Paraboss – lice, worms and flies Pain relief Animal health and nutrition 	<p>Strategy : Healthy Productive Sheep go to pg 31</p> <ul style="list-style-type: none"> Program: Sheep Health & Welfare Program: Vertebrate Pests Program: Reproduction Program: Genetics
<ul style="list-style-type: none"> On-farm technology Ear tag technology 	<ul style="list-style-type: none"> On-farm technology eIDs Water monitoring 	<p>Strategy : Farm Automation & Software Development go to pg 33</p> <ul style="list-style-type: none"> Program: Software Development Program: Hardware Development
<ul style="list-style-type: none"> Wool Exchange Portal (WEP) Increase in shearer and shed handler numbers Shed safety training Shearing alternatives More wool classers and better training Lower costs of production Enticing young people into the industry Improving grower consultation 	<ul style="list-style-type: none"> Shearing alternatives Flexibility in clip preparation Tools and guidance on yard design/infrastructure Sheep handling efficiency and training Training for new entrants in the industry Wool Exchange Portal (WEP) Business management Supply chain and market knowledge 	<p>Strategy : Training & Technology Uptake go to pg 39</p> <ul style="list-style-type: none"> Program: Wool Harvesting & Quality Preparation Program: Sheep & Wool Management Skills Program: Market & Trade Intelligence Program: Student Education
<ul style="list-style-type: none"> Research into wool's eco-credentials Fibre advocacy Life Cycle Assessment (LCA) Climate change 	<ul style="list-style-type: none"> Feedbase education Soil and pasture health Feedlotting Dry time feeding Water security 	<p>Strategy : Feedbase & Fibre Advocacy go to pg 34</p> <ul style="list-style-type: none"> Program: Fibre Advocacy Program: Feedbase & Eco Credentials
<ul style="list-style-type: none"> Dominance of China 	<ul style="list-style-type: none"> Chlorine in early stage processing 	<p>Strategy : Product & Processing Innovation go to pg 45</p> <ul style="list-style-type: none"> Program: Process Development Program: Product Development
<ul style="list-style-type: none"> Retailer training 	<ul style="list-style-type: none"> Educating students on industry practices 	<p>Strategy : Education & Extension go to pg 46</p> <ul style="list-style-type: none"> Program: Trade Education Program: Student Education

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3. ICC Member Agenda Items

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

DATE: 20 June 2018

Prior to the June ICC meeting, grower groups sent through agenda items they would like AWI to provide feedback on. AWI received the following items and provides the following response.

AUSTRALIAN SUPERFINE WOOL GROWERS' ASSOCIATION

Barbers Pole

The biggest issue for northern NSW is barbers pole worm.

AWI feedback

Both AWI and MLA recognise the drench resistance and climate variability factors that make Barbers Pole a difficult problem to address.

The following investments support woolgrowers with this issue:

- Commercial vaccine is currently available (initially funded by MLA)
- ParaBoss, funded by AWI and MLA, includes smart grazing advice related to management of Barbers Pole Worm
- AWI is funding a project with Monaro Farming Systems that includes best practice demonstration of worm testing and control for Barbers Pole, which is increasing in their region.
- MLA are currently funding a project - *New option for monitoring drench resistance and movement of Barber's Pole Worm* - which is expected to finish in early 2019. AWI doesn't want to duplicate the space that MLA is already investing in.

Marketing

Reluctant to spend money on marketing in Australia as we feel it is too generic in its form, needs to be targeted. We could co-operate with other companies and piggyback on their marketing by offering tech, advice and support.

AWI feedback

Our marketing objective is to increase demand for Australian wool and the primary way we do this is by empowering partners to promote the benefits of Merino wool to their consumer audiences through content, funding and resources (this was outlined to ICC members at the February ICC meeting by AWI's Global Communications Manager – the presentation can be found at [Attachment 3.1](#)).

With 98% of Australian wool consumers are overseas, our marketing efforts are focused on the Northern Hemisphere and delivered through our international offices.

In Australia, we deliver marketing solely through brand partnerships to leverage our investment and impact. This is a cost-effective way to promote the benefits of wool to Australian consumers, as well as providing Australian woolgrowers with a glimpse into the marketing activities being undertaken to increase demand for their product.

An example of this is the recent partnership with Westfield during Wool Week Australia. Westfield had 39 centres across Australia running wool-focused campaigns, and 9 centres hosting exclusive events and activities including extreme knitting workshops, visual merchandise displays showcasing retailer wool product, live knitting installation (Westfield Sydney), interior design workshops (Westfield Bondi Junction), and fashion exhibitions (Westfield Doncaster). We also worked together to create a video to take customers back to the source of the fibre, which can be viewed here: <https://www.youtube.com/watch?v=IPEkv-cZ0SY&feature=youtu.be>

Other successful Australian marketing initiatives that leverage off partnerships include the Flock to the Baggy Green project with Kookaburra and Australian woolgrowers to recreate the baggy green cap from Australian wool, and the Fibre of Football that has developed and sold more than 140 lines of wool AFL supporter gear.

Lifetime Ewe Management

This should be extended, even though there is noise that indicates it has reached most of those that are very likely to implement this. However, the overriding fact is the reports have all been positive and lifts your management and raises reproduction levels.

AWI feedback

To date, AWI has supported over 4,300 woolgrowers' participation in LTEM. Currently there are 39 active LTEM trainers nationwide, working primarily in the high rainfall and sheep-wheat zones of the eastern states.

By the end of June, AWI and RIST (LTEM contractor) will have run 4 LTEM Train-the-Trainer (TtT) events this financial year in WA, SA, NSW & Victoria (off the back of 3 TtT events in 2016/17), further increasing the availability of accredited trainers to woolgrowers. Regional Trainer Forum workshops are also being run for existing trainers to offer a refresher on the key skills of the program and provide industry research updates.

AWI and RIST have a meeting scheduled for mid-June to discuss manual updates and additions, delivery modes and strategies, program enhancement and the way we will improve the program moving forward.

LTEM remains central to AWI's efforts to improve reproductive rates across the national flock, and as such, AWI is actively working to support LTEM graduates and provide pathways into the program for those that have not yet participated. Examples of this are three of AWI's recently launched, one-day grower workshops: Realising Performance Potential (assistance to identify 'passenger' ewes which do not perform

as well as the rest of your flock, and the tools for within flock selection to increase reproductive rate), RAMping Up Repro (focusing on ram health and preparation to decrease costs per progeny and increase ram longevity and effectiveness) and Winning With Weaners (strategies to get your Merino weaners through to first joining with a 95% survival rate). All of these workshops act as a refresher for LTEM graduates and a signposting activity for those who have not yet participated (more details can be found at [Attachment 3.2](#)).

Wild Dogs

Work on wild dogs needs to continue

AWI feedback

AWI is currently supporting 47 Community Wild Dog Control Groups – 11 in Queensland, 19 in NSW, 12 in Victoria, and 5 in WA. AWI is also looking to sign a contract with SA for winter/spring aerial baiting. To date, AWI has supported 170 groups.

Groups are supported on a tapered funding model over three-years, with assistance to help affected producers “get over the hump” of a newly emerged or emerging wild dog problem, and set themselves up for on-going future control. This assistance is provided in the form of infrastructure or fixed assets (freezers, meat drying racks and walk in cold rooms) or in the form of direct killing costs (baiting, trapping and shooting).

AWI also funds Wild Dog Coordinators in each affected state, as well as a National Wild Dog Coordinator, to encourage and where possible assist and guide Groups towards funding self-sufficiency.

A recent analysis of 47 wild dog control groups surveyed during the period 2014 to 2017 revealed that 85% of the groups reported an 80% or greater reduction in sheep losses after implementation of the control program.

In response to the strong demand for high quality knowledge and skills training courses, AWI has funded on-ground wild dog control training developed by the NSW State Wild Dog Control Coordinators. 60 producers from the Western Division of NSW participated in a 1-day wild dog awareness and basic control program in late 2017.

AWI are currently running four 3-day wild dog control workshops in Western and North-Eastern NSW. 120 producers have participated in these baiting and trapping workshops since 2016. AWI are also developing a pilot and evaluation of firearms (“Sighting In”) courses.

AWI is also co-investing in the development of innovative technology to help woolgrowers to protect their flocks from wild dog attacks. The Wild Dog Alert system, an automated on-property camera trap device that identifies wild dogs, notifies a woolgrower of a wild dog's presence in real-time, to enable the woolgrower to act early and proactively. More information on this project can be found in the June 2018 edition of *Beyond the Bale* ([Attachment 3.3](#)).

AWI is also co-investing in the use of electronic signalling in the absence of existing (phone) networks to tell wild dog trappers if and when their traps “go off”. In

collaboration with NSW DPI and NZ company Encounter Solutions Ltd, the device will be fitted to rubber jawed leg-hold traps and signal the trap manager when the trap closes. This means the trapper will only need to visit those traps which have “gone off”, allowing the trapper to provide the legally required level of supervision to a greater number of trap, whilst still providing for the swift identification of trapped dogs and their speedy and humane destruction.

Fly genome initiatives

This may have huge potential. Possibly this may spill over to Lice control genome work as well.

AWI feedback

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. It is high risk work and accordingly, AWI is investing in a couple of projects.

Genetics of Blowfly Parasitism

- A project to isolate the sheep blowfly genes that allow the parasitic interaction between the maggots and the sheep.
- This is discovery work to predict which fly genes mutate for chemical resistance and which genes might be for vaccine antigens or new drug targets.

Fly Genome CRISPR Technology

- This project aims to establish the CRISPR (clustered regularly interspaced short palindromic repeat) gene editing technology in the Sheep Blowfly.
- This will allow the analysis of any genes of interest that arise in current and future projects in the blowfly itself, rather than in model systems.
- The CRISPR technique allows researchers to extract a specific piece of DNA from the genome of an individual fly and see what impact it's absence has on the fly and identify its function.
- CRISPR can also insert DNA with a desirable management impact. If the modified DNA is passed onto offspring, CRISPR will be the foundation of biological control.
- A potential outcome from future work is the development of a vaccine which could stop flystrike in its earliest stages by targeting vital proteins in the maggots, killing them.
- In determining the function of DNA, researchers can fast track their research in a range of areas such as drug, vaccine, and biological control targets.
- Researchers have successfully edited into fly genomes a “white eye” trait and they are currently being mated to see if they are fertile (see photo below).
- Flies with the White gene appear dazzled by light and are essentially blinded, however the main purpose of using the White gene is that it provides an easy way of identifying the technique has work.

- Similar work is being done with the Orco (smell) gene that affects the blowfly's ability to smell, which might be important for finding susceptible sheep to strike.



Researchers have had success editing a “white eye” trait into fly genomes - a promising start for further research

Shearing and wool handling

Shearing and wool handling has changed minutely in the last 100 years. We need a quantum leap to take us to the next plateau. We still have irregular (and shorter) lengths caused from second cuts. Wool handling would benefit with training too.

AWI feedback

AWI is heavily focused on the alternative wool harvesting technology space. AWI has contracted an on shore 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 semi-autonomous robotic shearing systems. This will commence with an industry workshop on 14 June in Cattai, NSW to identify and bridge the gap between robotic technology and the needs of the wool industry. It will follow with an inventory of off the shelf robotic hardware and software for application to other investments.

AWI is also actively investing in programs to improve the skills of shearers and wool handlers and attract and retain them in the industry:

- 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.

- Since 2015, AWI has delivered 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.
- 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.
- AWI is continuing discussions with the Labour Mobility Assistance Program Reference Group to ascertain whether seasonal workers under the Seasonal Workers Programme would be suitable for the wool harvesting industry.

Genetics

Should be a user pays system as there are many who don't adopt them. There are too many characteristics measured, adding cost, many of which could be done with a raddle in the classing race.

AWI feedback

The on-farm costs of measurement impacted by the number of traits are a matter for discussion between MERINOSELECT users, breeders generally and MLA. In 2016, AWI relinquished its influence on the cost of genetic evaluation using MERINOSELECT when it ceased funding for operational support. This was based on the strategic position that the service should be fully commercialised. If it was fully commercialised, breeder clients would exert market forces on the service costs.

WOOLPRODUCERS AUSTRALIA

Woolmark stencils

In shed Woolmark stencils for growers to put on bales – is this happening? VFF raised the fact that Stuart McCullough mentioned at a Livestock Council meeting that the Woolmark stencil will be provided to woolgrowers to put on their bales.

AWI feedback

The development of the Woolmark supply chain integrity program is underway and approved for funding. An early milestone of this project is the provision of pro-bono licences to woolgrowers.

We expect that these will be available before the end of the year.

World Merino Conference

Costs to AWI of the World Merino Conference – how many people did AWI fund to attend, what were the outcomes/benefits to Australian growers?

AWI feedback

AWI was invited to be guest speaker at the World Merino Conference in Uruguay, providing AWI with the opportunity to present to delegates from leading global meat

and wool markets, educating these markets on the Australian wool industry and learning about other countries' merino breeds.

AWI's Corporate Communications Manager, Marius Cuming, was selected to attend and presented on "The demand, trends, new products and marketing" within the wool industry. The total cost to AWI was \$12,438.40.

AWI's Chair also attended the Conference in a personal capacity. AWI did not cover any of his costs.

Executive training

Executive training announced at last year's AGM – who has undertaken this training, how much has this cost and what have been outcomes and benefits?

AWI feedback

At AWI's 2017 AGM, Director Garnsey noted that media training was going to be made available to the AWI Board and staff.

The AWI Chair and AWI's Global Communications Manager both undertook training on media engagement, presenting and public speaking with the objective to equip them with techniques and strategies to feel confident in encounters with media, from phone briefings to face-to-face interviews and industry discussions. Both have been skilled in message preparation and control techniques, message re-enforcement, body language and rules of engagement. The total cost of the training was \$4,125.

Benefits delivered back to woolgrowers and success of the training can be evidenced through the feedback following AWI's Global Communications Manager's presentation to over 200 people at the IWTO conference in Hong Kong. The feedback has been that her presentation at the congress was "one of the best received." This enables AWI to better inform global supply chain stakeholders on the investments and activities being driven by Australian woolgrowers.

AWI's Chief Executive Officer is looking to complete similar training in the new financial year.

Fly genome project

Where is the fly genome work up to?

AWI feedback

Please refer to the response above provided to ASWGA's agenda item: Fly genome initiatives.

Increasing production

What is AWI's strategy around increasing production to meet demand? At what point does the focus switch from marketing to production to ensure that we can produce what is being demanded i.e. 40:60 R&D/marketing split.

AWI feedback

Increased wool production comes from running more sheep and producing more kilograms of wool per sheep. Increased sheep numbers can result from lower mortalities (ewe, weaner and lamb, foetus, embryo), which can be achieved through better ewe nutrition, better lambing paddock management, less footrot, worms and other diseases, flystrike, less predation, improved rate of genetic gain.

Increased wool cut per head can result from increased rate of genetic gain, less diseases as above, better feeding (particularly better fed ewes, which deliver lambs with increased lifelong follicle density).

Development of sheep and wool management skills also supports the industry to increase sheep numbers and wool overall wool production.

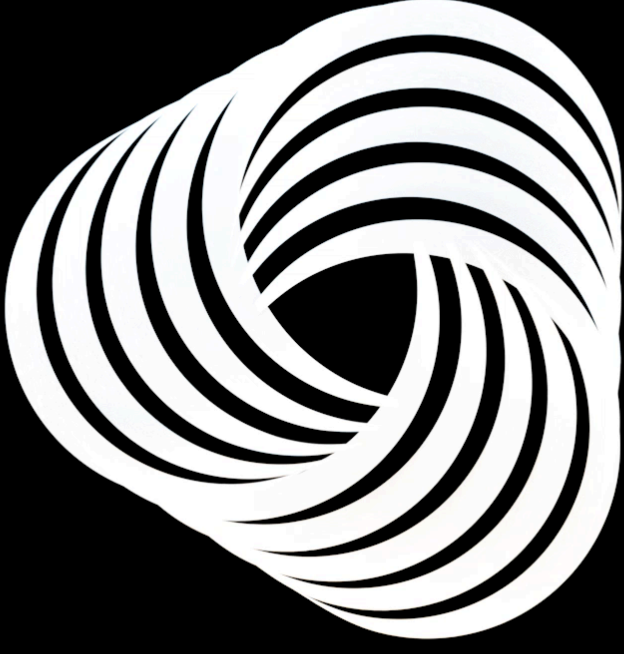
An example of the wide range of programs AWI invests in to address both these issues to increase wool production include:

- Lifetime Ewe Management program – to address mortality and lamb follicle density
- Paraboss – to address mortality and health
- Putting Wormboss into Practice – to address mortality and health
- MiniFlotac (new drenchtest) – to address health
- Developing gene knockout technology for blowflies – to address mortality and health
- Genomics of flystrike – to address mortality and health
- Ectoparasiticide resistance survey – to address mortality and health
- Foetal aging from pregnancy scanning (predicting lambing date range) - to address mortality
- Feedbase extension program development – to address mortality and health
- Winning with weaners pilot – to address mortality and health
- Merino Lifetime Productivity program (MLP) – to address rate of genetic gain
- Footrot vaccine - to address health
- Wild dog “trap alert” – to address mortality
- Wild dog “camera alert” - to address mortality
- Feral pig control on ground - to address mortality
- Wild dog control on ground - to address mortality
- Predator control training - to address mortality
- Rabbit biocontrol – to address mortality and health
- Optimising lambing density - to address mortality
- Nutritional manipulation of sex ratio – to address rate of genetic gain
- Feed On Offer (FFO) gallery update – to address mortality and health
- Winning With Weaners workshop – to address mortality and health
- Realising Performance Potential workshop – to address mortality and health
- Metabolic disorders of pregnant ewes – to address mortality and health

- From Chaff to Wool – to address mortality and health
- Feeding standards for modern Merinos – to address mortality and health
- MLP Improving prediction of ovine foetal age – to address predicting lambing date range - mortality
- MLP reproduction efficiency - to address mortality
- AMSEA – to address rate of genetic gain
- Wether trials – to address rate of genetic gain
- Fertility of sexed ram semen – to address rate of genetic gain
- Improving success of artificial insemination programs (synchronisation) – to address rate of genetic gain
- Selecting sheep for a resource limiting environment – to address mortality and health
- MLP resilience in Merino sheep – to address mortality and health
- Sensor ear tag development – to address mortality and health
- Artificial intelligence proof of concept – to address mortality and health
- Australian genebank – to address mortality and health
- P efficient pastures – to address mortality and health
- Dryland legume pasture systems – to address mortality and health
- Red clover syndrome investigation – to address mortality and health
- Feedbase fit development – to address mortality and health
- Shearer and wool handler training – to improve shearer and wool handler skills
- National Merino Challenge – to enable young people to develop their industry knowledge, skills and networks
- Sheep classing workshops – for increasing the production of Merino flocks
- Young grower initiatives – to encourage and the support the next generation into the wool industry
- AWI State Extension Networks - practical programs to encourage positive changes to on-farm production and adoption of best practice

Attachments

- **3.1** Marketing Presentation – February ICC meeting
- **3.2** Reproduction workshops
- **3.3** Wild Dog Alert Article – Beyond the Bale



MARKETING AND COMMUNICATIONS

OBJECTIVES

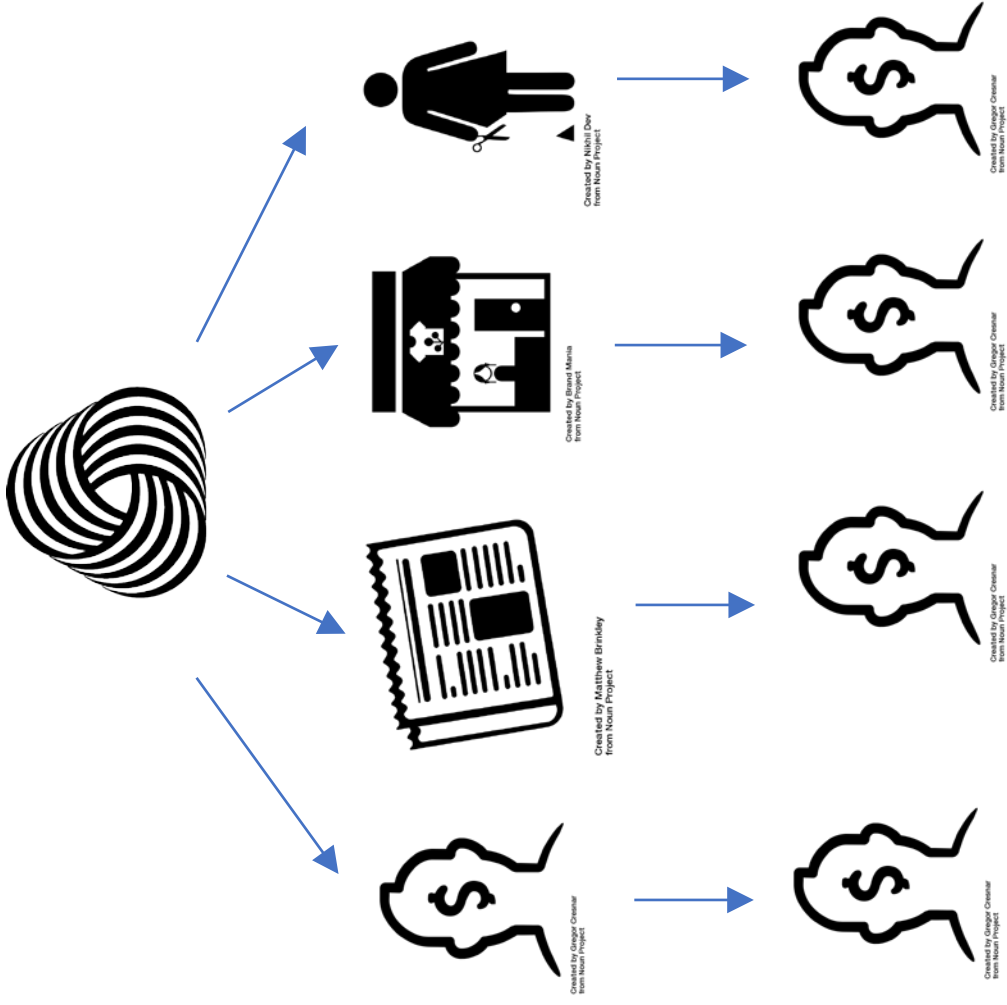
Increasing the demand for Australian Merino wool by:

Empowering partners to promote the benefits of Merino wool to their consumer audiences through content, funding and resources

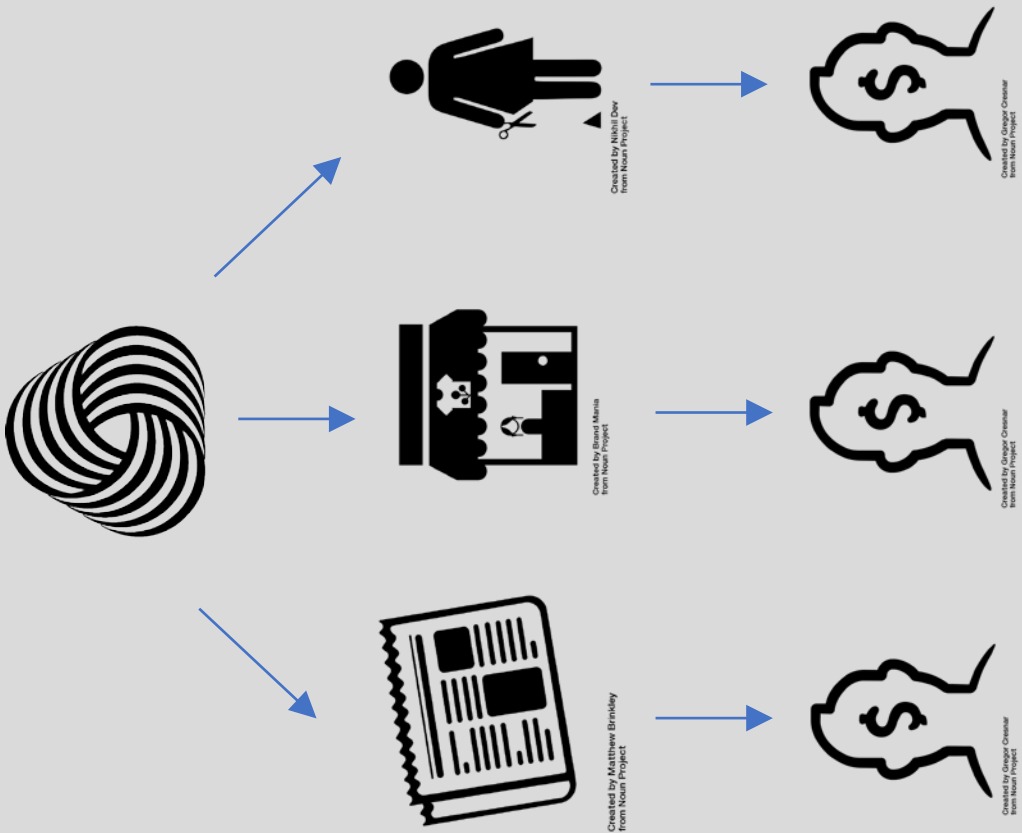
Educating and Inspiring a wider consumer audience to become loyal to wool through our content eco-system



CURRENT BUSINESS MODEL



PAST MARKETING MODEL



WOOL & CONSUMERS: MARKET INSIGHTS

- Equity of 100% wool has decreased since 2015, while Merino wool and blends are stable;
- Consideration of Merino wool has decreased since 2015. This is not localised to wool, as all fibres across the board experienced a decrease in consideration;
- All markets identified “makes you itch” as the primary reason for not buying wool (all inclusive). This was followed by “allergy” and “too warm” as the second and third reason for not buying. “Too warm” is the only category that saw an increase in 2016.



MACRO MARKET TRENDS

TRUTH / SCEPTICISM

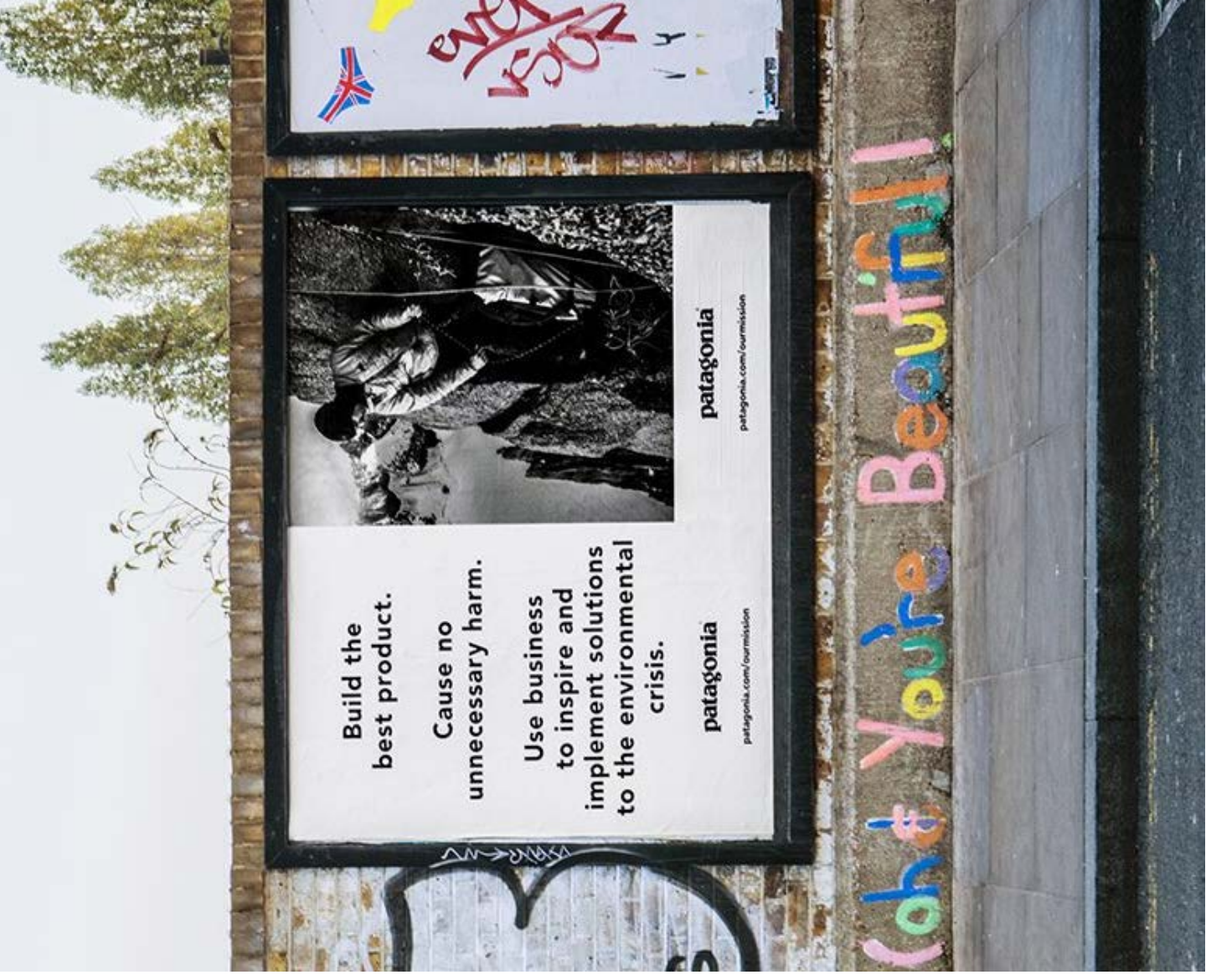
With consumer scepticism rising, truth may be the most valuable tool available to brands. According to a [Label Insight](#) study, 94% of consumers claim that they would be more loyal to a brand if they promoted complete brand (not just product) transparency.

PURPOSE AND POLITICS

A politicised cultural landscape and demand for purpose means brands have to take a social stance. According to the 2018 Economist Purpose Study, 79% of people prefer to purchase products from a company that operates with a social purpose. Nielsen research found that Millennials are 66% more likely to purchase from brands that do good.

FUTURE OPTIMISM

According to a December 2017 survey by [Morning Consult](#), 53% of consumers see a better year ahead. Not about making light of the issues but lightening up and seeing possibilities in the challenges.



COMPETITORS

Bio-textiles

Indifference

Fast fashion

Greenwashed man-made fibres

RESPONSE

Innovative wool blends and owning 'natural'

Education and compelling science

Quality over quantity debate

Debunking Science and influencer strategy

INSIGHT TAKE-AWAYS

We know that consumers don't need wool, they need garments that suit their purpose; they don't need a specific fibre, they need to feel rather than their purchase reflects their values.

In a world where people are untrusting of institutions and government, brands have an opportunity to stand for something and we can grow loyalty to wool by connecting beliefs to the brand.

THE STRATEGY

Improve wool's position by challenging misconceptions of the fibre's function through uplifting owned and partner content.

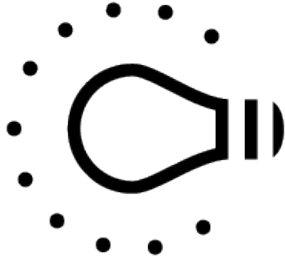
Simultaneously, enhance wool's social equity by building a positive brand belief system for Woolmark through a responsibility narrative

COMMUNICATION PILLARS: 2018



BENEFIT

- Benefit marketing
- Easy care content
- Influencer validation
- Sensory marketing and PR through sample availability



INNOVATION

- Future Insight sharing
- Proto-type development and launch
- Innovator investment
- Wool Performance Challenge
- International Woolmark Prize
- Digital experiences / events



RESPONSIBILITY

- Provenance message
- Principled social discussions using experts and influencers
- Sustainability Narrative
- Truth through Science
- Licence Program development


WHO ARE MILLENNIALS?

BORN BETWEEN

1980

2000

 GREW UP ALONGSIDE TECHNOLOGY

 DO THEY MATTER?

LARGEST GENERATION YET

80 MILLION IN THE U.S.



2.5 BILLION WORLDWIDE



MOST ETHNICALLY RACIALLY & DIVERSE



SOCIALLY CONNECTED



OF WORKFORCE

50% BY 2020



CONFIDENT HAVE HIGH EXPECTATIONS ACHIEVEMENT ORIENTED



MAKE A DIFFERENCE W/ THEIR WORK

MILLENNIALS

NEXT STEPS

1. A consumer-centric approach to comms, with less reliance on partners to promote fibre benefits – launch in September 2018
2. Global influencer strategy, real people in real time are more believable
 1. Build emotion connection to your brand
 2. Greater focus on localised content for Asian markets



BENEFIT MARKETING

Our key focus for content marketing will challenge the myth that wool is ‘too warm & too itchy’ by creating an unexpected and optimistic story around wool performance that will also highlight the natural - and more subtly, environmental - aspects of the fibre.

Campaign content will be advertising with a global out-of-home media buy strategy and supported by advertorial and editorial content features targeting affluent millennials

In addition, a series of light-hearted content pieces will be created to highlight the meaning behind the Woolmark brand, easy-care and easy-storage of wool and will be localised for eastern and western markets.





GLOBAL MEDIA STRATEGY

Strategy:

Target Urban dwelling Millennials at high-trafficked locations within their daily travel patterns using:

- Outdoor
- High Impact Video Targeting
- Influencers
- Programmatic targeting
- PR

Target Consumption Highlights

- 52% are heavily exposed to OOH
- 75% commute to work daily, and 47% live 20+ minutes from work
- 83% drive every week, and 51% walk a mile or more in town every week

Focus Markets:

New York, San Francisco, London, Shanghai, Tokyo



BELIEF MARKETING



People wouldn't care if 74% of the brands they use just disappeared.



75% of us expect brands to make more of a contribution to our wellbeing and quality of life, yet only 40% believe brands are doing so.



60% of content produced by brands is declared as poor, irrelevant or failing to deliver.



BELIEF MARKETING STRATEGY

Today's luxury consumers have higher expectations of businesses than ever before. They require traceability of products, transparency of supply chain and tangible global impact.

China's Affluent Monitor 2017 report showed that For millionaires' social responsibility trumps brand recognition

Stage 1:

Create content that gives an in-depth look into the supply chain from the farm to the factory.

Stage 2:

Add new dimension to the meaning of 'quality.' Pledging 'Quality of Life' for all those who work in our wool industry.



WHAT DO WE BELIEVE IN?

Improving the lives of growers and animals

Improving the lives of the people who work with wool

Improving the lives of our wearers through access to quality, natural products

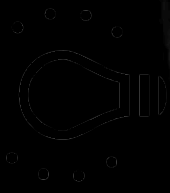
Value over volume

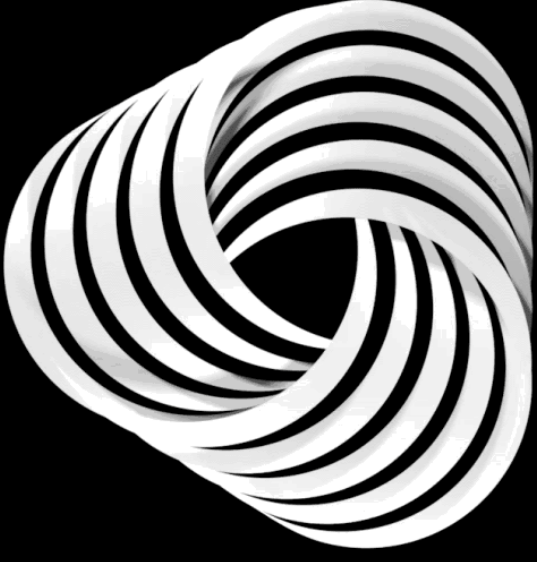
Green is the new gold

INNOVATION: STRATEGY

To support the Trade & Innovation department in effectively promoting new innovations and position Merino as a fibre of the future, we will combine:

- Trend forecast research & insight sharing
- Bio & benefit science
- Innovator collaborations
- Prototype-style product launches

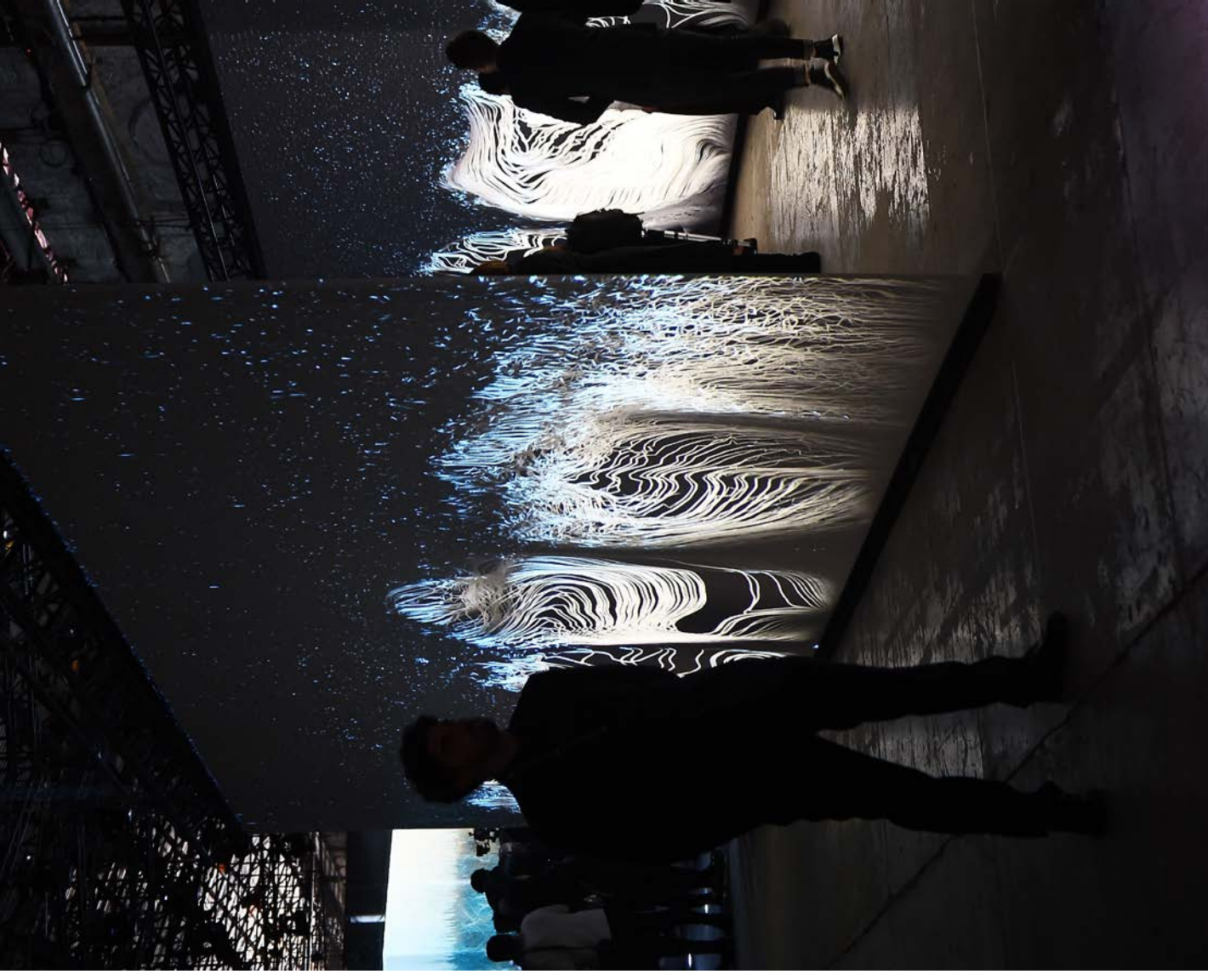




INTERNATIONAL
WOOLMARK PRIZE

IWP - CONTINUED IMPROVEMENT

- Evolving nominee application process to ensure TWC has more control of designer entries to guarantee top talent
- Reducing number of regional events, redirecting funds to content and media engagement and experiences
- Build upon the Alumni database and leverage our educational content to create an emerging designer communication and mentoring program
- Improve celebrity association to secure social and media engagement
- Appoint a new global project manager for centralised management
- Retail launch strategy to focus around influencer engagement





VISUAL IDENTITY

We want to build a strong visual identity to the International Woolmark Prize campaign, which builds on the existing brand identity of Woolmark.

It should position the IWP as the most coveted award in the industry.



INNOVATION

The designers and their innovative collections will be showcased. We believe this innovation should be communicated simply, in the installation design.



NATURAL RESOURCE

We want to weave the natural benefits of Merino wool into the exhibition design in a way that feels integrated and designed into the experience rather than an add-on or through pages of written information.



LOCALLY SOURCED

Geo-location will be used to reveal the source of the wool, in a way which feels integrated into the design.

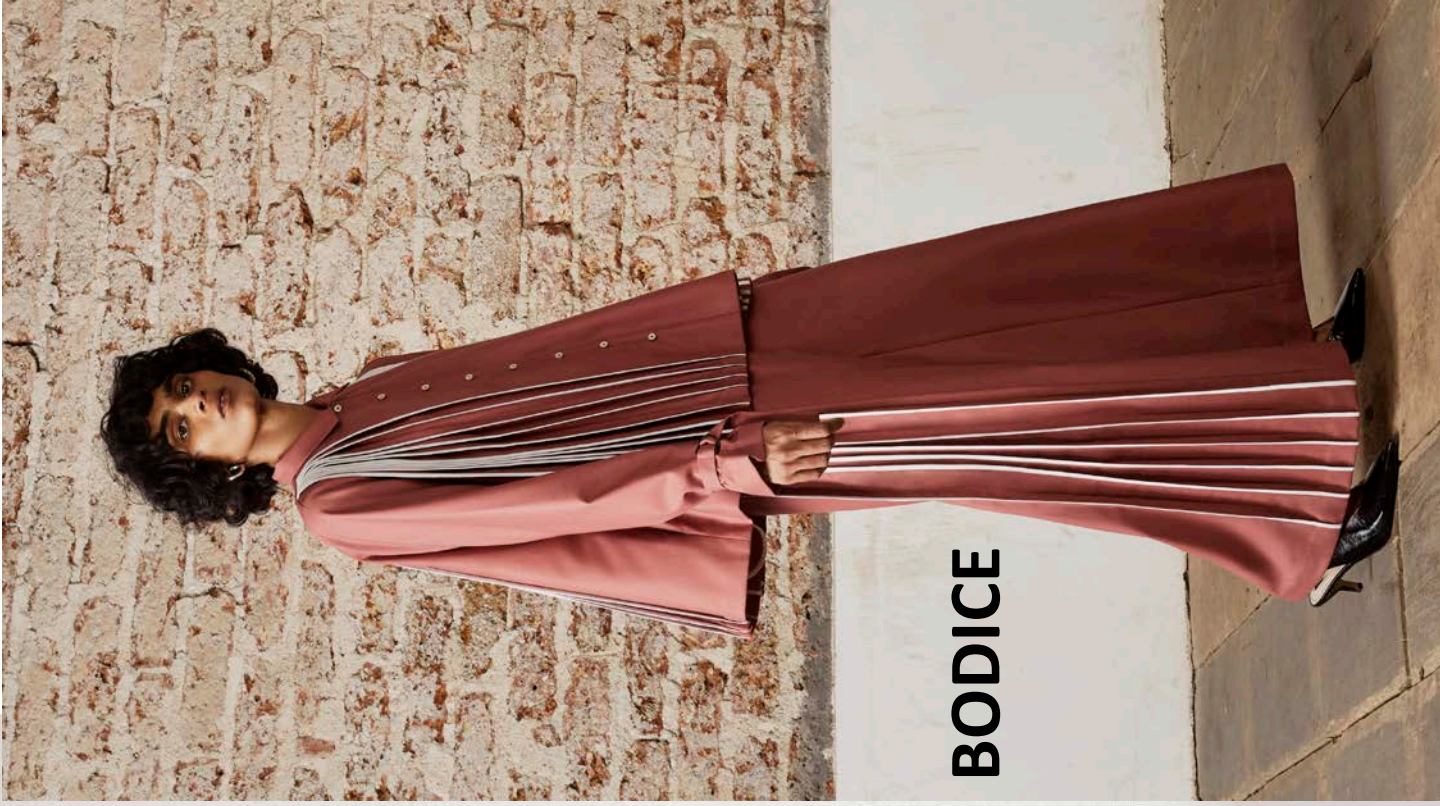


SOCIAL IMPACT

The audience at the awards ceremony will be invited to interact with the space, and encouraged to take/post pictures on social media.

Attendees and nominees will continue to build hype as they share the experience with their followers.

We want contributing designers to proudly advertise their work on creative platforms like Behance.

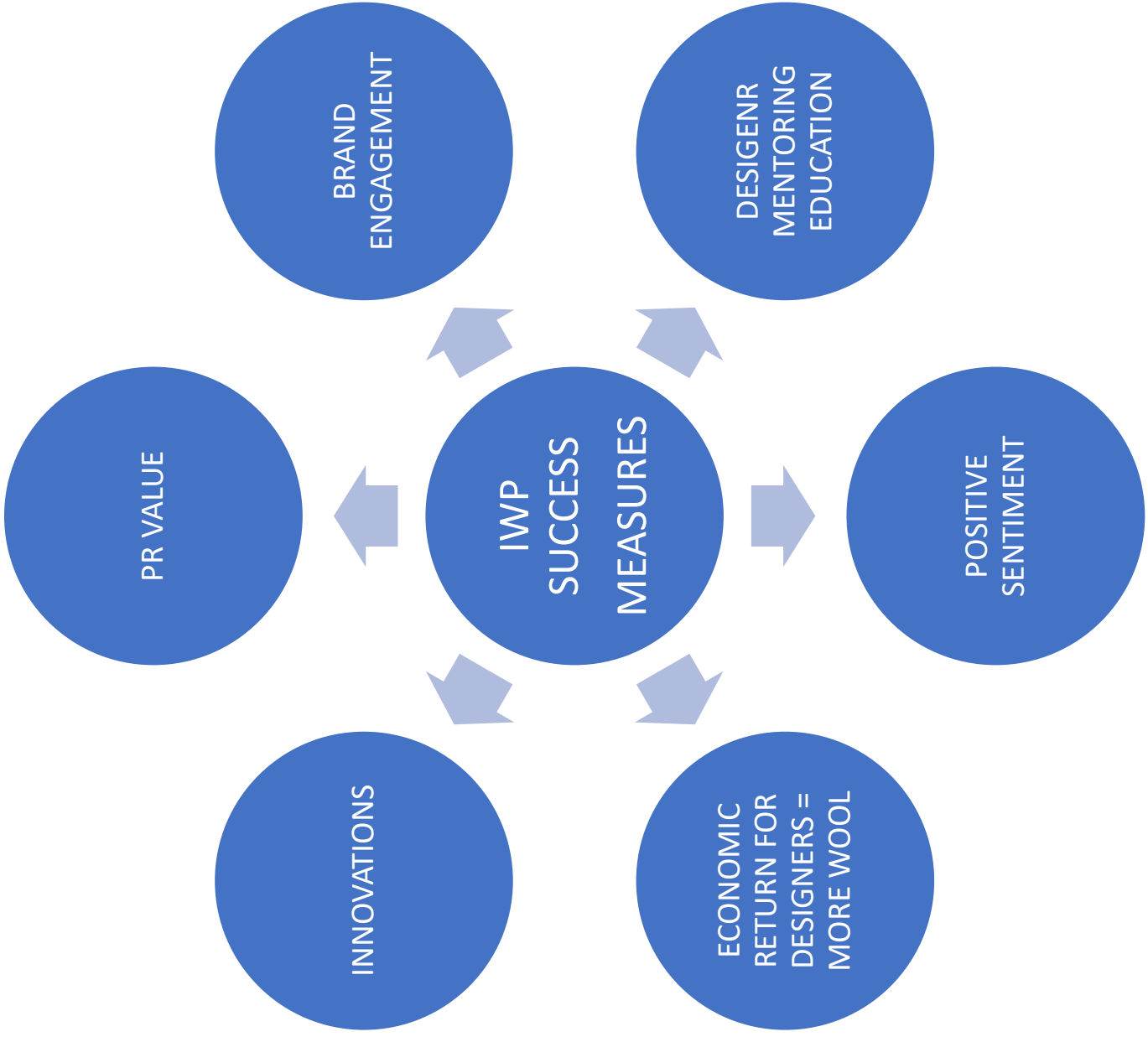



BODICE

**MATHEW
MILLER**



DYNE





The Woolmark Company partnered with Raf Simons to support the development of a Merino-rich AW 2017 and SS 2018 collections. The partnership was based on historic, mutual admiration and will lay the foundations for a meaningful, long term collaboration with one of the most influential designers of our time.

"I appreciate that The Woolmark Company encourages brands to come up with innovative ways to work with merino wool--a material that I love and often use in my own collections. It would feel very natural for me to partner with Woolmark to create something special."

- Raf Simons

SEASON 1: PARTNERSHIP OVERVIEW

1. Product Development of an AW 17 Merino-rich collection (80% Wool)
2. Presentation of collection to international buyers at Paris Showroom
3. Testing and certification of 76 different skews to carry co-branded ticketing
4. PR and Media Strategic Collaboration delivering over \$1.2million in editorial coverage in 1 month
5. Show Sponsorship included co-branded invitations and VIP Media access

“Raf is a designer with vision that can make a difference, indeed change the tempo for the industry.”

NEW YORK TIMES



SEASON 2: PARTNERSHIP OVERVIEW:

1. Product Development of an S/S 18 Merino-rich collection (60% Wool) highlighting the versatility of Merino for all seasons
2. Development of limited edition garment in 'tech-wool' to generate hype and editorial value
3. Presentation of wool rich collection to international buyers at Paris Showroom July 2017
 4. Testing and certification of collection to carry co-branded ticketing
5. PR and Media Strategic Collaboration delivering over \$1million in editorial coverage
 6. Show Sponsorship included co-branded invitations and VIP Media access
7. Exclusive back-stage access for TWC photographer to create engaging content and launch opportunity
 8. Ambassador duties including appearances at TWC events
9. Store launch event in iconic Asian retailer to VIP customers and press Oct 2017

INSTORE EVENT TOKYO

- BESPOKE 100% MERINO SWEATER FOR DOVER STREET MARKET, TOKYO
- INSTORE APPEARANCE
- VIP POST EVENT DINNER
- 3 X IN PERSON INTERVIEWS





INFLUENCER TARGETING



Pharrell Williams
2.9 Million views



LAPINADEEJAY
4230 likes
59 comments



G DRAGON
1.27mil likes
16k comments



CHRISTINA MUSACCHIO
23k likes
694 comments

I LOVE TOKYO

THANK YOU

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

WHAT YOU NEED TO KNOW ABOUT WWW

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

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:

STATE	WEBSITE
VIC	www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb
QLD	www.leadingssheep.com.au
NSW	www.sheepconnectnsw.com.au
SA	www.sheepconnectsa.com.au
TAS	www.sheepconnecttas.com.au
WA	www.sheepsback.com.au

FOR MORE INFORMATION OR TO REGISTER YOUR INTEREST

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

WOOL.COM

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	www.agriculture.vic.gov.au/agriculture/livestock/beef-and-sheep-networks/bestwool-bestlamb
QLD	www.leadingsheep.com.au
NSW	www.sheepconnectnsw.com.au
SA	www.sheepconnectsa.com.au
TAS	www.sheepconnecttas.com.au
WA	www.sheepsback.com.au

FOR MORE INFORMATION OR TO REGISTER YOUR INTEREST

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Sheep Connect SA	Ian McFarland	0437 659 353	ian.mcfarland@sa.gov.au
Sheep Connect Tasmania	James Tyson	0409 006 774	james.tyson@utas.edu.au
The Sheep’s Back (WA)	Andrew Ritchie	08 9736 1055	andrew@iconag.com.au

WOOL.COM



The prototype **Wild Dog Alert camera trap device** under development. PHOTO: Heath Milne

WILD DOG ALERT

TO PROVIDE WOOLGROWERS WITH 'FIRST STRIKE' CAPABILITY

Ground-breaking research and use of innovative technology is being developed to help woolgrowers protect their flocks from wild dog attacks thanks to co-investment from AWI and their partners. Using an automated on-property camera trap device that identifies wild dogs, the Wild Dog Alert system will notify a woolgrower of a wild dog's presence in real-time, to enable the woolgrower to act early and proactively.

“It's the terrible feeling of being defenceless, the not knowing if wild dogs are around the property, the not knowing when they might attack the flock.”

This is a familiar comment from woolgrowers and other sheep producers in areas affected by wild dogs – and it is a demonstration of how wild dogs can affect the emotional well-being of farmers as well as their financial bottom line.

However, the development of a prototype new tool is well under way that aims to firmly place woolgrowers and other land managers on the front foot to manage wild dogs. The Wild Dog Alert Node is a 'camera trap' with advanced computer software, capable of satellite communication, that can visually identify wild dogs and then send a real-time alert to a landholder's mobile phone or other device.

It will therefore enable landholders to receive immediate information about the location of individual wild dogs and allow the landholders (and cooperating landholders and wild dog controllers in the local area) to take instant action to disrupt and discourage wild dog attacks.

The system will also provide wild dog control groups with an unprecedented opportunity

to monitor wild dog activity and efficiently guide the development and review of strategic regional wild dog management plans.

“Often, wild dog control has necessarily been reactive and expensive, with woolgrowers and contractors effectively forced to 'chase' dogs after sheep have been maimed and killed,” said AWI Program Manager Vertebrate Pests, Ian Evans.

“In chronic cases this can go on for weeks, months or even years, taking a heavy toll on enterprises, families and communities.

“But if sheep producers could reliably detect dogs before they attack, at any hour and at even the most distant locations of their property, then there could be an opportunity to thwart a dog attack.

“Early warning technology could therefore allow woolgrowers to take the initiative back from the dogs and allow growers to protect their stock.

“There are also more strategic benefits of using this new system, such as woolgrowers and other land managers following wild dog movements to help in the planning of more effective bait campaigns and measurement of their effectiveness.”

DEVELOPING WILD DOG ALERT

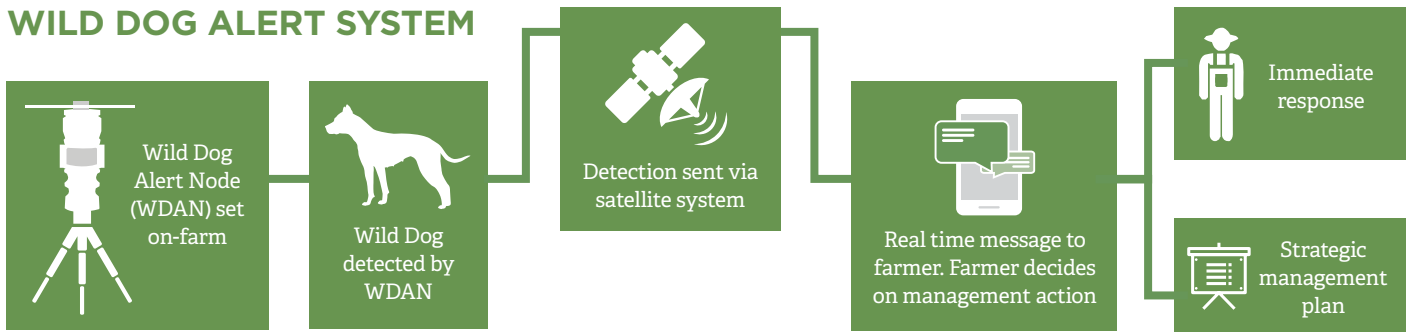
The development of the Wild Dog Alert system is being undertaken by researchers at the University of New England (UNE) and the NSW Department of Primary Industries (DPI) with support from AWI along with the Department of Agriculture & Water Resources and Meat & Livestock Australia, through the Centre for Invasive Species Solutions.

The aim is for the research project to build and deliver a prototype Wild Dog Alert Node by June next year, which if successful will then be followed by a commercialisation process.

Researcher Paul Meek of NSW DPI and UNE said Wild Dog Alert will bring together significant developments in automated recognition technology and remote satellite communication.

“Our initial field evaluations confirmed that using current off-the-shelf technology to detect, capture, identify and transmit image data as a foundation for the Wild Dog Alert was inadequate and did not meet the team's technological expectations or requirements for a robust and reliable real-time alert system,” Paul said.

WILD DOG ALERT SYSTEM



“The off-the-shelf camera traps are unreliable; they miss detections depending on the time of day, the placement of the camera and the direction the animal walks in proximity to the camera trap. As a result, the research team took the decision to build another device from the ground up, using the latest cutting-edge technology.

“What we are designing and testing now is a unique prototype with more capacity and capability than any known technology of its kind in the world.”

The ground-breaking standalone camera trap device that the team has built to detect wild dogs is currently being field tested in Australian environments, from the tablelands to the rangelands, under realistic conditions representative of where the devices will be deployed, such as sheep properties.

WILD DOG ALERT COMPONENTS

CAMERA TRAP

Notably, the camera trap has a tri-sensor system to detect animal presence, unlike most conventional camera traps that just rely on a PIR (passive infrared) sensor. This means that detection is optimised. It has 360-degree sensor and camera coverage so that the camera device can track and capture imagery of a wild dog on a 360-degree axis. At night the wild dog is illuminated by infrared flashes.

“To the best of our knowledge it is the first

camera trap device in the world to have 360-degree sensor and camera coverage so that the device can detect a dog approaching from any direction, then take a photo, process the image and send an alert using both 3G and satellite communication systems,” Paul said.

Field testing during daytime and night includes evaluating the detector’s range, efficiency and interference from the sun or other environmental effects (such as bugs on the camera lens and shadows from trees that might give ‘false detections’).

Another important consideration is to ensure the system is robust under operational field conditions, such that the device can cope with wind, dust, frost, torrential rain and extreme heat.

SOLAR POWER

A camera trap system of this kind requires significant battery power, so the team has custom-developed a solar panel and battery system to ensure image detection and processing can be done at any time of day.

One significant consideration of the battery design is that unlike other remote monitoring systems it is designed to greatly minimise the risk of over-heat that could potentially start a bushfire.

RECOGNITION SOFTWARE

“There is some seriously complex artificial intelligence incorporated into the Wild Dog

Alert Node too,” says Greg Falzon, the brains trust behind the device.

“We have incorporated algorithms that can recognise and differentiate dogs from other animals, and that also know when a moving subject (like a shadow, which can trigger off-the-shelf camera traps) is not a dog.

“We have an algorithm that uses facial recognition to uniquely identify with a high degree of accuracy individual wild dogs. So our team is really on the cutting edge of global technology.

“The Wild Dog Alert Node is our prototype of future technology. We’ve pushed ourselves to do this because we are ultra-motivated and extremely keen to help fix some of the challenges faced by Australian woolgrowers.”

SATELLITE COMMUNICATION

Another important function of the Wild Dog Alert system is the capacity to transmit a message of a dog detection where no telecommunication network exists. To solve this issue the team has built a satellite transmission component into the device so that remoteness is not a limiting factor to adoption and use.

“The team has been testing satellite transmission from different locations in Australia to see whether there are any black-holes in landscapes like gorges and deep rainforest where satellite signals may be impeded. So far, the results have been extremely encouraging, with few locations, even in the gorge country, not transmitting signals,” Paul said.

After the prototype is suitably field tested, commercialised and is available for production, it is anticipated that Wild Dog Alert will provide landholders with real-time notification on devices such as a smartphone, tablet, computer or other remote connection device.

BROADER APPLICATIONS

“The technology built and now incorporated into the Wild Dog Alert is pioneering and has much broader applications for future technological tools,” Paul added. “Interestingly, the device can be programmed to recognise other species, such as foxes.

“In developing a prototype system for Wild Dog Alert, the team has also developed many additional software applications that could be made available to interested parties, which represents significant value for money.”

Computational scientist **Greg Falzon** and mechnronics expert **Jaimen Williamson** field testing the prototype **Wild Dog Alert device**. PHOTO: Heath Milne



4. Update from Department of Agriculture, Water and Resources

TITLE: Update from Department of Agriculture, Water and Resources

DATE: 20 June 2018

Verbal update to be provided by Andrew McDonald from DAWR to ICC members.

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5. WoolPoll 2018 Update and Levy Rate Deliberations

TITLE: AWI report back – WoolPoll 2018 update and levy rate deliberations

DATE: 20 June 2018

WOOLPOLL 2018 UPDATE

WoolPoll Panel

- The WoolPoll Panel have now met three times this year to discuss and endorse the Voter Information Kit (VIK) and poll process. The Panel endorsed these at their third meeting in May.
- The Panel have also been given an opportunity to engage with an external communication consultant (Cox Inall Communications) throughout these meetings to develop key messaging for WoolPoll 2018.
- The WoolPoll Panel members will meet for the last time in November once voting has closed to endorse the poll results, finalise the Panels' report and provide recommendations to the next WoolPoll Panel.

Key WoolPoll dates

- All eligible levy payers will be sent their voting entitlement letter from Link Market Services on the 24th August.
- Voting opens on the 17th September and closes on the 2nd November.

LEVY RATE DELIBERATIONS

- Under the *Wool Services Privatisation (Wool Levy Poll) Regulations 2003*, the decision to set levy rates rests with AWI. The Regulations also dictate that AWI must provide a levy rate recommendation. However, the AWI Board considers it important to consult with industry to ensure that industry views are taken into account in its deliberations.
- The process for consulting industry on the levy rates for this year's WoolPoll was conducted differently, as requested by Panel members in the first meeting. The Panel Chair wrote to industry organisations, including ICC members, state farming organisations and state stud merino breeder associations, providing them with a briefing on AWI's finances and inviting them to submit their organisation's preferred three to five levy rates to be considered by the AWI Board for polling at WoolPoll 2018.
- After a long process of deliberation, the levy rate options and AWI's levy rate recommendation have been approved by the Board, however cannot be released publicly until approval has been received from the Minister. They will be incorporated into the Voter Information Kit that all eligible levy payers are sent on 17th September.

6. Review of Performance Update

TITLE: AWI report back – Review of Performance update

DATE: 20 June 2018

REVIEW OF PERFORMANCE UPDATE

- Since the previous update provided to the ICC in February, AWI's Review of Performance has progressed significantly.
- The government has appointed Ernst Young (EY) consultants to conduct AWI's review, and an administration committee has been established by DAWR. This committee includes two DAWR representatives, two AWI representatives and a nominated industry representative from NFF to guide EY throughout this review process.
- EY have conducted a comprehensive documentation review of AWI and have focused on extensive stakeholder engagement.
- This has included interviews with grower groups, industry bodies and individual growers; call for submissions by all relevant parties allowing the opportunity to submit comments; and finally, phone interviews with growers randomly selected from AWI's levypayer database.
- Interviews were also conducted with AWI directors and staff.
- This report is currently at the drafting stages and will be available to the public in the coming months.

7. AWI report back - On Farm R&D, market update, Processing Innovation and Education Extension

TITLE: AWI report back – On Farm R&D, market update, Processing Innovation and Education Extension

DATE: 20 June 2018

AWI report back – on farm R&D

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

AWI report back – market analysis

- Verbal update AWI's Trade Analyst, Scott Carmody.

AWI report back – Processing Innovation & Education Extension

- Verbal update from AWI's General Manager - Processing Innovation & Education Extension, Julie Davies.

Status of AWI's programs

Please refer to Attachments 7.1 – 7.5 for an updated summary on AWI's progress in implementing AWI's Strategic and Annual Operating Plans for On Farm R&D.

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

- **7.1** Sheep Production Deliverables 2017/18
- **7.2** Processing Innovation and Education Extension Deliverables 2017/18
- **7.3** Woolgrower Services Deliverables 2017/18
- **7.4** Marketing Deliverables 2017/18
- **7.5** Business Services Deliverables 2017/18

OVERALL OBJECTIVE		PROGRAMS	DELIVERABLES / TARGETS	STATUS
STRATEGY		<p>Increase the profitability and sustainability of woolgrowing.</p> <p>SHEEP HEALTH & WELFARE</p>	<ol style="list-style-type: none"> Pre-operative pain relief available for routine surgical procedures. Breec modification alternatives commercialised. Development of an ASBV for faecal consistency. Improved laboratory diagnostic testing for worms and larvae. Sustained increase in grower utilisation of the Paraboss website. Wool bale decontamination and disinfection procedures developed. 	<ol style="list-style-type: none"> In progress. In progress. – some delays. In progress. In progress. In progress. In progress.
Healthy Productive Sheep		<p>VERTEBRATE PESTS</p>	<ol style="list-style-type: none"> Effective national and regional coordination of vertebrate pest control effort in sheep producing areas. Effective assistance to producer groups to establish the basis for sustainable long-term vertebrate pest control programs. 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. Support for programs which enhance producers ability to efficiently and effectively control Rabbits in the long term. 	<ol style="list-style-type: none"> In progress – some delays. On target. Achieved.
72		<p>REPRODUCTION</p>	<ol style="list-style-type: none"> 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%. At least 250 producers engaged in determining the impact of lambing density (ewe mob size and stocking rate) on lamb survival. At least 200 producers engaged in developing the strategies and guidelines for improving weaner and maiden ewe performance. 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. 	<ol style="list-style-type: none"> On target. In progress – some delays. In progress. In progress.
Farm Automation & Software Development		<p>GENETIC IMPROVEMENT</p>	<ol style="list-style-type: none"> 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. Routine, low-cost per head alternatives to genomic parentage technology in wide commercial use for mothering-up Merino lambs. Australian sheep breeders maintain access to consolidated and improved wether trial, central test sire evaluation and MERINOSELECT databases. 	<ol style="list-style-type: none"> On target – exceed the plan target. On target. On target.
Feedback & Fibre Advocacy		<p>FEEDBASE & ECO-CREDENTIALS</p>	<ol style="list-style-type: none"> 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. Assess and improve the understanding and application of data collected by sensor technology. Develop software to maximise benefits of sensor technology for farmers. 	<ol style="list-style-type: none"> In progress. In progress.
Feedback & Fibre Advocacy		<p>FIBRE ADVOCACY</p>	<ol style="list-style-type: none"> Generate significant improvement in wool's environmental footprint ratings, and strengthen wool's reputation for environmental stewardship. 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. 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. 	<ol style="list-style-type: none"> In progress. In planning phase On target.
Feedback & Fibre Advocacy		<p>FIBRE ADVOCACY</p>	<ol style="list-style-type: none"> Internationalize studies demonstrating that Merino base-layer garments ameliorate chronic skin conditions associated with microclimate management of the skin. Demonstrate that wool bedding and sleepwear improves sleeping conditions. Support development of product market opportunities in categories such as corporate wear, safety wear, medical product and infants wear. 	<ol style="list-style-type: none"> On target. On target. On target. On target.

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 20 manufacturers, yielding an average mill profit increase exceeding \$20,000 by 2019.	1. In progress. 2. In progress.
	STUDENT EDUCATION	1. Directly engage participants at an average cost per effective participant of \$10.	1. In progress.
	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. In progress. 2. In progress. 3. In progress.
	CONSUMER EDUCATION	1. Development of train-the-trainer programs for greater and more efficient execution.	1. On Target

OVERALL OBJECTIVE		Increase the profitability and sustainability of woolgrowing.	
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS
<p>Training & Technology Update</p>	<p>SHEEP & WOOL MANAGEMENT SKILLS</p>	<p>1. 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. 2. Delivery of the National Merino Challenge on a fixed annual budget in real terms. 3. Average annual cost saving to woolgrowers participating in AWI supported networks exceeds \$700, net of AWI and grower costs. 4. 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</p>	<p>1. On target. 2. On target. 3. Ahead of target. 4. Ahead of target .</p>
	<p>WOOL HARVESTING & QUALITY REPARATION</p>	<p>1. Increase shed productivity by, on average, four sheep per day by 2019 across the whole industry. 2. Cost per person trained remains constant in real terms. 3. Commercial availability of at least one technology, by 2019, to increase the efficiency of wool harvesting.</p>	<p>1. On target. 2. On target. 3. On target.</p>
<p>Consultation</p>	<p>WOOLGROWER</p>	<p>1. Provide multiple channels for shareholders to access and consult AWI directly, in person at specific and industry events or digitally 2. A greater awareness amongst shareholders of the ongoing research, development and marketing projects conducted by AWI for the wool industry 3. Provide a more customised flow of information to and from shareholders, delivered regularly and digitally through Beyond the Bale quarterly and newsletters monthly 4. Create the most valued market intelligence in the wool industry</p>	<p>1. On target. 2. On target. 3. On target. 4. On target.</p>
	<p>STAKEHOLDER</p>	<p>1. AWI reports on and meets its statutory requirements. 2. Measure change in growers' awareness of AWI's activities and outcomes delivered, and build internal awareness of stakeholders' priorities and issues to better enable AWI to integrate and reflect their issues in activities. 3. A greater awareness amongst stakeholders (grower groups, government, welfare stakeholders) of the ongoing research, development and marketing conducted by AWI for the wool industry and the value this delivers.</p>	<p>1. On target. 2. On target. 3. On target.</p>

MARKETING DELIVERABLES 2017/18

OVERALL OBJECTIVE		Increase demand for Australian wool.	
STRATEGY	PROGRAMS	DELIVERABLES / TARGETS	STATUS
Fashion	MENSWEAR	<ol style="list-style-type: none"> 2.5 million kgs of new demand over this strategic period. 6 new global partnerships. 	<ol style="list-style-type: none"> On target. On target.
	WOMENSWEAR	<ol style="list-style-type: none"> 2.0 million kgs of new demand over this strategic period. 6 new global partnerships. 	<ol style="list-style-type: none"> On target. On target.
75 Sportswear		<ol style="list-style-type: none"> 20 new partners working with AWI 2 million kgs new demand for Australian wool over this Strategic period. 	<ol style="list-style-type: none"> On target.: Actively encouraging more projects in this area On Track: Actively encouraging more projects in this area
Global Campaigns	INTERNATIONAL WOOLMARK PRIZE	<ol style="list-style-type: none"> An additional 3.5 million kgs in new demand by 2019 Grow the Alumni database by 60 new designers annually Grow media awareness and editorial coverage by \$10 million Grow the retailer partner network by 3 new retailers from a base of 11. 	<ol style="list-style-type: none"> Achieved – target exceeded. In progress Achieved – target exceeded. On target.
	THE CAMPAIGN FOR WOOL	<ol style="list-style-type: none"> Additional 1.0 million kgs of new demand 	<ol style="list-style-type: none"> In progress.

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"> 1. Compliance – no default notices for financial reporting. 2. Risk – Manage the group reserves policy ensuring the reserves are maintained to target. 3. Provide financial reports to the Board/management and audited financial statements. 	<ol style="list-style-type: none"> 1. On target. 2. On target. 3. On target.
	PEOPLE SERVICES	<ol style="list-style-type: none"> 1. Talent Acquisition – talent recruited matches business needs 2. Engagement – Year on year improvement in employee engagement measure 3. Workplace Culture – Compliance with local and international employment legal requirements and key HR policies globally. 	<ol style="list-style-type: none"> 1. On target. 2. On target. 3. On target.
	LEGAL SERVICES	<ol style="list-style-type: none"> 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. 2. Manage the company’s intellectual property assets to ensure that they are protected and their value enhanced and provide assistance with commercialisation. 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. 	<ol style="list-style-type: none"> 1. On target. 2. On target. 3. On target.
	EVALUATION SERVICES	<ol style="list-style-type: none"> 1. All AWI Programs will be evaluated on a routine basis. 	<ol style="list-style-type: none"> 1. On target.
Woolmark	LICENSING	<ol style="list-style-type: none"> 1. Stabilise the decline in numbers of licenses. 	<ol style="list-style-type: none"> 1. In progress.
	BUSINESS DEVELOPMENT	<ol style="list-style-type: none"> 1. 75% of Key Accounts report a measurable increase in wool production or sales over the strategic period. 	<ol style="list-style-type: none"> 1. In progress.
Digital Services		<ol style="list-style-type: none"> 1. By 2019, increase the amount of new customers entering the AWI/WM digital eco-system by 20%. 2. Integrate CRM across the entire business to improve communication. 3. Ensure all offices and projects are fully supported digitally and increase overall staff awareness of these services. 4. Provide leadership and guidance to ensure digital future proofing of the business. 	<ol style="list-style-type: none"> 1. On target 2. On target. 3. Achieved. 4. On target.

8. Summary and Close

TITLE: Summary and Close

DATE: 20 June 2018

October ICC Meeting

The next meeting of AWI's ICC is due to be held on 3 October 2018. Location is yet to be determined.

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