



# Australian Wool Education Trust

## ANNUAL REPORT - 2019/2020

### History

In July 1997, Australian Wool Testing Authority Ltd (AWTA Ltd) donated \$3,000,000 of its Unappropriated Profits to a trust vehicle named "The AWTA Ltd Wool Education Trust". The objectives, as set out in the Trust Deed were:

*"The Trustees shall hold the Sum upon trust for the application of the income for charitable purposes being the advancement of education in wool and wool textile science and technology including, without limiting the generality of the foregoing, in all or any of the following methods:*

- a) *to support the education of students, growers and others considered to be capable of contributing to the development of the wool industry, from the growing to the textile product stage, including in such subjects as:
  - i. *fibre science, including fibre and follicle development, fibre morphology and characteristics, and their effects on processing performance and product properties;*
  - ii. *wool production, including selection, preparation for sale and packaging;*
  - iii. *wool metrology, including testing technology, process control, Total Quality Management techniques and the prediction of processing performance;*
  - iv. *wool and textile marketing, including trading, processing and promotion of products made wholly or partially from wool;**
- b) *to fund attendance at educational conferences and to fund scholarships and prizes;*
- c) *to fund educational resources, educational conferences, educational programs and educational institutions and colleges; and*
- d) *to fund scientific research undertaken for the advancement of education."*

The Deed provided for the appointment of 5 Trustees - 3 by AWTA Ltd (the Founder) and 2 by the former Federation of Australian Wool Organisations (FAWO), now Wool Industries Australia (WIA).

In May 2003, the Deed was amended to broaden the objectives of the Trust to allow Trustees to fund education outside the University sector.

In 2004, Australian Wool Innovation (AWI) agreed to donate \$4.00 million to the Trust, subject to the Trust Deed being amended to provide for appointments of 3 Trustees by AWTA Ltd, 3 by AWI and 2 by FAWO. The new Deed came into effect on 25<sup>th</sup> June 2004, at which time the organisation was renamed "Australian Wool Education Trust" (AWET).

In June 2019 the Trustees varied the Trust Deed to reduce the number of Trustees from 8 to 5, two appointed by AWTA Ltd, two by AWI and 1 by WIA.

Being a not-for-profit trust, AWET is registered with and reports to the Australian Charities & Not for Profits Commission (ACNC) - <https://www.acnc.gov.au/charity> .

Registration was first required in 2012 and Annual Reports are provided to the ACNC at the end of each calendar year. The Trust has always met the ACNC's reporting requirements within the stipulated timetable.



## Trustees – 2019/2020

For the period covered by this Report, the Trustees were:

### Appointed by AWTA Ltd

**Mr M. A. Jackson:** (Chairman)  
Managing Director, AWTA Ltd

**Mr P. J. Sommerville:** (Secretary of Trustees)  
Former Corporate Development Manager, AWTA Ltd

### Appointed by FAWO

**Mr J.W. Lewis:**

Former Divisional Manager, AWTA Ltd Product Testing and Former  
Managing Director, Macquarie Textiles

### Appointed by AWI

**Dr A. C. Archer AM PSM:**

Former Principal, Tocal College and Chairman of the Primary Industries  
Education Foundation Australia

**Professor A. L. Vizard:**

Principal Fellow, Faculty of Veterinary & Agricultural Science,  
Melbourne University

The Chairman and Secretary of Trustees are appointed by the Trustees.

Mr Jackson was appointed Chairman at an extra-ordinary meeting on 26<sup>th</sup> June 2019

At their meeting on 5<sup>th</sup> May 2020 the Trustees extended the appointment of Mr Sommerville as Secretary of Trustees for a further term of 3 years.

## Educational Objectives

The Trust's educational objectives are defined in its Trust Deed:

- To support the education of students, growers and others considered to be capable of contributing to the development of the wool industry, from the growing to the textile product stage, including in such subjects as:
  - fibre science, including fibre and follicle development, fibre morphology and characteristics, and their effects on processing performance and product properties;
  - wool production, including selection, preparation for sale and packaging;
  - wool metrology, including testing technology, process control, Total Quality Management techniques and the prediction of processing performance;
  - wool and textile marketing, including trading, processing and promotion of products made wholly or partially from wool;
- to fund attendance at educational conferences and to fund scholarships and prizes;
- to fund educational resources, educational conferences, educational programs and educational institutions and colleges; and
- to fund scientific research undertaken for the advancement of education.

## Investment Strategy

The Trustees have adopted the following investment strategy:

- Trustees set the asset allocation policy for investments but engages a professional firm to manage the funds;
- subject to advice, 90% of the Trust's capital will be invested in a selected group of index funds, with the residue in cash and alternatives;
- the index funds will cover equities, property and fixed interest in both Australia and overseas; and
- Trustees will review the investment strategy at 6 monthly intervals.

Trustees have appointed Morgan Stanley as the manager of the portfolio.



During 2019/20 the portfolio return after expenses, excluding cash, was 0.97%. This was a result of a strong recovery in the final quarter following significant declines due to uncertainties arising from the COVID-19 pandemic.

### Funding Strategy

The Trustee’s investment strategy recognises that, to ensure that AWET has a long-term future and maintains its spending power, some earnings must be retained to offset the effects of inflation on its capital. In this regard, a target cap on total expenditure has been set at 51% of earnings over time.

Trustees aim to leverage funds by playing a catalytic, facilitation role whenever opportunities arise, with emphasis towards targets that will produce a large impact (preferably Australia-wide), rather than spreading available funds too thinly. In short, the Trust aims to make a significant difference.

Since 2005, Trustees have applied the following Funding Policy and guidelines.

**FUNDING POLICY**

*To fund worthwhile projects that fully comply with the objects of the Trust Deed while:*

- *maintaining the purchasing power of the Trust’s assets in perpetuity;*
- *committing to some long-term projects, without removing the ability to fund new projects in subsequent years; and*
- *concurrently, funding at least 2 major projects.*

*To achieve these objectives, Trustees have determined the following:*

A) LEVEL OF FUNDING

*On an annual basis, approximately 4% of the asset value of the Trust is expected to be available to be distributed to funded projects. (Note: This figure is calculated from the expected long-term nominal return on investment of 8% less CPI (2.5%), investment management fees (1.0%) and other administrative costs (0.5%).)*

B) LENGTH & TIMING OF FUNDING COMMITMENTS

*The following table represents the maximum funding commitments for future years:*

	<b>Current Year</b>	<b>1 Year Out</b>	<b>2 Years Out</b>
<i>% of Annual Funding Committed</i>	100%	60%	30%

C) SIZE OF MAJOR PROJECTS

*Typically, the Trust funds projects up to approximately \$50,000 per annum for up to 3 years.*

These guidelines are applied with some flexibility, taking into account the specific details of projects being funded. They are not mandatory annual limits. However, the level of funding is regularly reviewed, to take into account market and CPI movements.

### General Policy for Allocation of Funds by Educational Sector

The objectives of the Trust Deed allow for funding across all educational sectors, but do not specify the proportion of funding to be allocated to each sector. The overall limit on funding is dictated by the Funding Policy and all decisions in apportioning funds are circumscribed by the Trust’s Principal Objective, namely:

*"To support the education of students, growers and others considered to be capable of contributing to the development of the wool industry, from the growing to the textile product stage."*

The policy for apportioning funds is described as ranges per sector, rather than as finite targets, to ensure that it is not overly prescriptive.

Currently, the funding ranges for each sector are:

Sector	Percentage Range	Percentage Mid-point
Schools	2% - 5%	3.5%
VET - Production	5% - 10%	7.5%
VET - Fashion Schools	10% - 23%	16.5%
Undergraduate	65% - 80%	72.5%

The long-term percentage range applies over a 10-year funding cycle, but within any particular year these may be exceeded - depending upon the quality of funding applications received.

## Assets Held by the Trust

### Financial

As at 30<sup>th</sup> June 2020, the total equity held by AWET was \$10.312 million.

From its inception and up to 30<sup>th</sup> June 2020, AWET has spent 68.1% of its earnings on educational projects/programs. Whilst this is higher than the long-term Funding Strategy it has been deemed acceptable given the relativity between rates of return and the CPI.

Revenue for 2019/20 was \$0.381 million.

Operating expenses for the year, excluding pro bono accounting and legal services provided by AWTA Ltd, but inclusive of fund management fees, amounted to 1.49% of the equity, a small reduction on the previous year.

An audited financial report is available as an addendum to this general report.

### Intellectual Property (IP)

#### Woolwise

AWET owns and manages the Woolwise Website ([www.woolwise.com](http://www.woolwise.com)).

The site provides background information about the Trust and its activities, relevant news and other wool industry information.

Moreover, all the Trust's IP can be viewed and/or downloaded from the site. This IP includes:

- CRC for Premium Quality Wool Resources (unrestricted access)
- Australian Sheep CRC Resources (restricted access)
- Australian Wool Textile Training Centre Resources (unrestricted access)
- AWET Resources (unrestricted access)

#### CRC for Premium Quality Wool Resources

Woolwise is the sole repository of the educational resource created by the CRC for Premium Quality Wool during its activities from 1993-2000. This resource consists of 2500 high quality Microsoft PowerPoint slides prepared and edited by leading Australian wool educators, researchers, and industry personnel. Each slide is accompanied by explanatory notes and references to allow users to extract personalised information modules.

The educational resources are organised into subjects, themes, topics and modules. All the files associated with each subject, namely

- Wool Biology;
- Wool Metrology;
- Wool Production;
- Wool Marketing; and
- Wool Technology

can be downloaded as a compressed archive. Alternatively, the modules associated with the topics within each theme can be downloaded as PDF files.



Since the inception of the Trust, AWTA Ltd has provided pro bono accounting and legal services, thereby ensuring that these significant costs are not a burden on the Trust's finances. The Trustees gratefully acknowledge this ongoing contribution by the Trust's founder.

### Australian Sheep CRC Resources

The Australian Sheep CRC, which operated from 2000-2007, coordinated the development of 10 sheep and wool educational modules. In partnership with the CRC, AWET directly funded development of the 4 Wool Modules, with the remaining 6 Modules being funded by the CRC, AWI and Meat & Livestock Australia (MLA). The development of all modules was coordinated by UNE and delivery of courses utilizing the modules commenced.

In 2007, the Core Parties of the Australian Sheep Industry CRC assigned to AWET all IP rights in the CRC-owned Educational Modules and related Additional IP (The Assignment Deed).

The Educational Modules initially covered the following topics:

<b>Item</b>	<b>Reference No.</b>	<b>Title</b>
1	WOOL 412	Sheep Production
2	ANUT 300	Applied Animal Nutrition
3	RSNR 421	Sustainable Land Management
4	WOOL 472	Wool Biology and Measurement
5	MEAT 418	Meat Technology
6	WOOL 422	Wool Marketing
7	WOOL 482	Wool Processing
8	GENE 412	Genetic Evaluation and Breeding
9	ANPR 420	Sheepmeat Production and Marketing
10	ANPR 450	Managing Sheep Enterprises

The IP transferred to AWET also includes other materials produced by the CRC, namely:

- Farm, Fibre and Food: Sheep and Wool Industry Information Tool Kit;
- Internal Parasite Control in Sheep;
- Merino Sheep Breeding Trainer Guide;
- School to Industry Links: National Pack; and
- Video by Mongoose Productions covering wool production from farm to mill.

There are conditions with which AWET is required to comply and some caveats as to the distribution of these materials.

The Assignment Deed requires AWET to use its reasonable endeavours to:

1. ensure that the Modules are made available on a not-for-profit basis for education in the sheep and wool industry in Australia in a manner consistent with the objects of AWET; and
2. ensure that the Modules are maintained and updated as AWET reasonably sees fit so as to remain useful to the sheep and wool education industry in Australia.

To comply with these obligations AWET has granted a licence to the Modules and the Module IP to the University of New England (UNE) for the purposes of conducting specific educational activities based on the Modules. This arrangement is covered by the Assignment Deed.

In granting this licence AWET retained the right to Use the Licensed IP and to grant licences to third parties for any purpose, provided that where in the reasonable opinion of AWET there is a direct conflict between the proposed activities of a proposed third party and the activities of UNE, AWET must consult with UNE and will use its reasonable discretion in considering such grant to any other third party licensee.

Under the terms of the Assignment Deed AWET must on request:

1. grant a licence to the Assigned IP and Improvement IP to the New CRC for Research Activities (including the right to sublicense to participants in the New CRC) on such reasonable terms as AWET sees fit (*with the closure of the CRC this requirement is now redundant*);



2. where reasonably appropriate, make the Modules, Module IP and related Improvement IP available on reasonable terms to any third party organisation within the sheep and wool education sector;
3. AWET may make the Modules, the Module IP and related Improvement IP available to third parties outside the sheep and wool education sector and for purposes other than educational activities, if AWET in its sole discretion is satisfied that all consents and approvals necessary for such distribution have been obtained;
4. AWET must not unreasonably decline to grant such a licence to any of the CRC Core Parties;
5. If a party identifies appropriate opportunities to distribute any of the Modules or Module IP to any third party, the relevant party will promptly inform AWET in relation to such opportunity.
6. Any licence to be granted by AWET is to be on a not-for-profit basis consistent with the objects of AWET.

Furthermore, under the terms of the Assignment Deed AWET must grant:

1. to each of the CRC Core Parties a non-exclusive, world-wide, royalty-free licence to Use the Modules, Additional Materials and the Assigned IP for Research Activities, including the right to sublicense to third parties for Research Activities;
2. to each of the Assignors other than the CRC Core Parties a non-exclusive, world-wide, royalty-free licence to Use their Assigned IP and the corresponding Modules and Additional Materials for Research Activities, including the right to sublicense to third parties for Research Activities; and
3. to each of the Assignors a non-exclusive, world-wide, royalty-free licence to Use the Improvement IP created or developed by or on behalf of that Assignor for Research Activities, including the right to sublicense to third parties for Research Activities.

#### Australian Wool Textile Training Centre Resources

AWET also holds the resources produced for the former Australian Wool Textile Training Centre (AWTTC).

These resources cover the following topics:

- Introduction to the Australian Wool Industry
- Buying and Consignment Preparation of Australia Wool
- Wool Top making and Early Stage Processing
- Contemporary Wool Dyeing and Finishing
- Innovations in Wool Textile Technology
- Australian Wool – Knowledge for Designers & Retailers

#### AWET Resources

AWET has funded development of a set of case studies for use by educators.

##### Case Study 01: Supply Chain Innovation

The case reflects upon the Tasmanian Quality Wool's (TQW) experiences in developing supply chain alliances and direct links with overseas garment manufacturers for the supply of wool for higher quality garments. The re-designed supply chain was aimed at reducing costs, with the cost savings to be shared by the 3 key partners.

##### Case Study 02: Wool Supply Chain

This is a story about a joint venture arrangement in a wool supply chain, from Australian woolgrower to European weaver.

##### Case Study 03: Going Finer

This case study examines a wool producer's integrated management approach toward the production of finer wool.

##### Case Study 04: Grower Price Risk Management

This case study is about the marketing environment facing specialist woolgrowers and approaches available to the growers in dealing with volatile prices.



Other resources to which the Trust has contributed, wholly funded or assumed responsibility include:

- Ollies Island (<https://www.olliesworld.com/island/aus/ebook/open.htm>)
- Kondinin Workboot Series: The Story of Wool (<https://www.kondininbookstore.com.au/workboot-series/>)
- Peep at Sheep (<https://www.woolwise.com/wp-content/uploads/2017/03/peep-at-sheep-online-activities.pdf>)
- Sheep Journal Archive (<http://www.sheepjournal.net/>)

Trustees have decided the Sheep Journal Archive is a resource for the industry and therefore the archive has been made open source i.e. journal articles can be downloaded for free.

## Management of the IP

### Maintenance and Updates

In 2007, contiguous with the assignment to AWET of all IP rights in the CRC Educational Modules and related Additional IP, a License Agreement between the University of New England (UNE) and AWET came into effect.

This obliges UNE to continue to deliver, develop and maintain the Modules and also, pursuant to the Agreement, UNE must transfer to AWET electronic copies of all updates to the Modules undertaken during the term of the License Agreement. The Agreement is subject to AWET continuing to provide funding to UNE to support the delivery of the Modules to undergraduate students. Should this funding cease then the obligation on UNE to update and maintain the Modules would also cease.

AWET may from time-to-time, in its sole discretion, provide funding to UNE for the provision of prizes, scholarships, staff support or other incentives in connection with the Educational Activities, in such amounts and on such terms as are agreed by AWET, but nothing in the Agreement imposes any obligation on AWET to provide any such funding.

The original License Agreement was applicable for 2 years, with the option to renew. In the ensuing years, it has been updated and renewed regularly. The current license agreement is for 5 years, with the option to renew taking effect in 2021. In view of changes in curriculum being proposed by UNE, to take effect in 2022, Trustees have offered to extend the expiring Licence Agreement for one year, with some caveats. The next Licence Agreement is expected to take effect at the end of January 2022.

There have been several updates to the Modules undertaken by UNE since the License Agreement commenced. The current status is as follows:

Item	Reference No.	Title	Status
1	WOOL 312-412-512	Sheep Production	See Note 1
2	ANUT 300-500	Applied Animal Nutrition	Revised 2012.
3	WOOL 472-572	Wool Biology and Measurement	Revised 2012.
4	MEAT 418-518	Meat Technology	Revised 2013.
5	WOOL 322-422-522	Wool Marketing & Clip Preparation	Revised 2012.
6	WOOL 382-482	Wool Processing	Revised 2012. See Note 4
7	GENE 422-522	Genetic Evaluation and Breeding	Revised 2011.
8	ANPR 350-450	Sheep Management	Revised 2012.
9	WOOL 300	Fundamentals of Sheep and Wool	Created 2014. See Note 3
	ANPR420	Sheepmeat Production and Marketing	See Note 1
	RSNR421	Sustainable Land Management	See Note 2

Note 1 In 2012, supported by funding provided by AWET and MLA, the content of ANPR 420 was incorporated into an expanded WOOL 312-412-512 unit.

Item	Reference No.	Title	Status
Note 2	RSNR 421,	as developed by the CRC, is no longer offered by the School of Environmental and Rural Science (SERS). Under the terms of the License Agreement, the Trust can license this unit to other Universities. UNE had developed an alternative course, identified by the same code and title, but for some time delivered in a different faculty. Since 2019 its delivery has been assumed again by the SERS. However, the Trust still holds the original unit documentation.	
Note 3	WOOL 300 (Fundamentals of Sheep and Wool)	was developed in 2013/14 for joint delivery by UNE and New England TAFE. It uses the content of the existing undergraduate modules licensed to UNE to provide a detailed introduction to the Australian sheep and wool industry and production systems. Specifically, it outlines the factors affecting production of sheep meat and wool and those factors a producer needs to take into account, including nutrition, genetics and environment. It also covers the marketing systems for wool and the importance of meeting consumer demands for sustainability.	
Note 4	The original version of WOOL 382-482	consisted of 29 topics. In 2012, with funding provided by the Trust, the module was revised and reduced to 16 topics.	
Note 5	The Trust maintains copies on Woolwise	of the original modules and their subsequent revisions.	

### Delivery to Undergraduates

Delivery of the Sheep CRC Modules is facilitated via the Trust's Research Agreement with UNE. Under this Agreement, the Trust has continued to provide funding to support delivery of the IP via a "Hub and Spoke Model", Australia-wide. This model provides for the inclusion of external students from other Universities in the courses offered by UNE.

Pursuant to this Research Agreement, the Trust's support has been both direct and indirect.

*Direct: An annual grant to assist UNE to deliver the modules*

*Subsidisation of maintenance and updating of the 4 wool modules*

*Co-funding of Undergraduate Co-operative Scholarships*

Under this arrangement, UNE seeks co-funding from industry sources, so that the number of scholarships awarded each year (each worth \$6000 p.a.) can be maximised. This involvement guarantees work experience for the scholarship recipients and the industry co-funders gain the opportunity to consider employing them. AWET's annual commitment varies, depending on the scholarship duration, availability of industry co-funders and the recipients' progress.

*Indirect: Undergraduate Project Scholarships*

To attract enrolments in the Units offered by UNE, the Trust is continuing to fund up to 15 Undergraduate Project scholarships, each worth \$7,000, for students across Australia undertaking sheep and wool education via these Units. The scholarships are available for Honours students and other students engaged in 1-year projects within their Degrees.

*Subsidies to External Universities.*

To encourage enrolments from students at non-UNE Universities, the Trust pays those Universities \$1,000 per student for the first 10 students and \$1,500 for each additional student as compensation for their loss of income when students enroll externally in the Wool units delivered by UNE. These subsidies are paid directly to the Universities by the Trust, based on enrolment records provided by UNE.

The current Research Agreement with UNE provides for:

- direct funding capped at \$150,000 per annum - UNE being free to allocate the funds to obtain the optimum outcomes;
- a Term of 5 years concluding in 2022; and
- AWET continuing its indirect funding and including Undergraduate Co-op Scholarships in this stream.



This Research Agreement will expire on 31<sup>st</sup> January, 2021 and a new agreement will be negotiated.

The numbers of enrolments in each module, since the Licensing Agreement commenced, is tabulated below (NO = Not Offered, NA = Not Available). Enrolments for 2020 will be included in the 2019/20 Annual Report.

<b>Title</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Sheep Production	13	50	26	51	63	55	40	76	41	31	44	34	34
Wool Technology	4	8	NO	10	7	9	4	18	13	12	23	18	29
Clip Preparation & Wool Marketing	13	23	9	15	20	15	24	15	12	8	10	10	15
Wool Processing	7	6	5	17	20	18	5	5	14	7	11	3	5
Fundamentals of Sheep & Wool	NA	NA	NA	NA	NA	NA	NA	13	34	40	21	37	43
Managing Sheep Enterprises												38	38
<b>Totals: AWET Sponsored Units</b>	<b>37</b>	<b>87</b>	<b>40</b>	<b>93</b>	<b>110</b>	<b>97</b>	<b>73</b>	<b>127</b>	<b>114</b>	<b>98</b>	<b>109</b>	<b>140</b>	<b>164</b>
Applied Animal Nutrition	29	48	43	49	54	27	46	41	38	39	51	49	7
Sustainable Land Management	30	33	43	32	29	15	62	54	28	43	38	31	15
Meat Technology	15	31	26	36	23	19	20	19	21	21	15	36	2
Genetic Evaluation and Breeding	19	13	5	7	10	19	7	9	4	13	10	5	11
Sheep Meat Production & Marketing	NO	16	3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Managing Sheep Enterprises	NO	24	11	21	13	16	7	9	9	31	23		
<b>Totals: Other Units</b>	<b>93</b>	<b>165</b>	<b>131</b>	<b>145</b>	<b>129</b>	<b>96</b>	<b>142</b>	<b>132</b>	<b>100</b>	<b>147</b>	<b>137</b>	<b>121</b>	<b>35</b>
<b>Totals: All Units</b>	<b>130</b>	<b>252</b>	<b>171</b>	<b>238</b>	<b>239</b>	<b>193</b>	<b>215</b>	<b>259</b>	<b>214</b>	<b>245</b>	<b>246</b>	<b>261</b>	<b>199</b>
Notes:	Delivery of Management of the Sheep Enterprise (formerly ANPR 350-450) returned to AWET the sponsored units in 2019.												

AWET's direct funding actually commenced prior to 2007 and its cumulative investment in delivering the Wool Modules, including indirect funding, is \$4,221,372. The data tabulated below does not include \$282,000 invested by AWET to develop the Wool Modules, which occurred from 2002 to 2005.

<b>Year</b>	<b>Direct Funding</b>		<b>Indirect Funding</b>		
	<b>UNE Delivery</b>	<b>Undergraduate Scholarships</b>	<b>Honours Scholarships</b>	<b>Subsidies</b>	<b>Total</b>
2005/06	\$5,850	\$18,000	\$0	\$0	\$23,850
2006/07	\$3,533	\$23,250	\$25,000	\$0	\$51,783
2007/08	\$102,624	\$14,250	\$80,000	\$0	\$196,874
2008/09	\$243,336	\$45,750	\$55,000	\$0	\$344,086
2009/10	\$182,975	\$52,500	\$83,000	\$0	\$318,475
2010/11	\$276,546	\$69,000	\$60,000	\$32,000	\$437,546
2011/12	\$175,682	\$18,000	\$108,000	\$38,600	\$340,282
2012/13	\$162,223	\$18,000	\$82,500	\$38,400	\$301,123
2013/14	\$151,271	\$46,500	\$66,000	\$28,200	\$291,971
2014/15	\$176,484	\$22,500	\$78,000	\$68,000	\$344,984
2015/16	\$171,248	\$27,750	\$78,000	\$16,400	\$293,398
2016/17	\$155,000	\$30,000	\$105,000	\$13,000*	\$303,000
2017/18	\$150,000	\$60,500	\$98,000	\$100,000	\$408,500
2018/19	\$150,000	\$0	\$98,000	\$25,000	\$273,000
2018/20	\$150,000	\$0	\$98,000	\$44,500	\$292,500
<b>Total</b>	<b>\$2,256,772</b>	<b>\$446,000</b>	<b>\$1,114,500</b>	<b>\$405,100</b>	<b>\$4,221,372</b>

\* Subsidies provided in 2016/17 are understated as some of the affected Universities did not invoice for the amount owed until after June 2017.

## General Availability of AWET'S IP

### IP Covered by the License Agreement

Pursuant to the Assignment Deed, the Trust provides copies of all the Educational Modules and the other materials produced by the Australian Sheep CRC to interested parties, subject to acceptance of Terms of Use designed to ensure that there will be no breach of the License Agreement with UNE. In order to maximise the use of these resources, no charges are raised by the Trust.

Two (2) types of License are available, namely, an Academic Version and a Student Version.

The Academic Version provides all lecture notes and references, with lecture notes available in both PDF and MSWord format. This License is designed primarily for Tertiary Institutions wishing to incorporate material from the modules within their own courses.

The materials supplied under this License include all versions of the modules since inception.

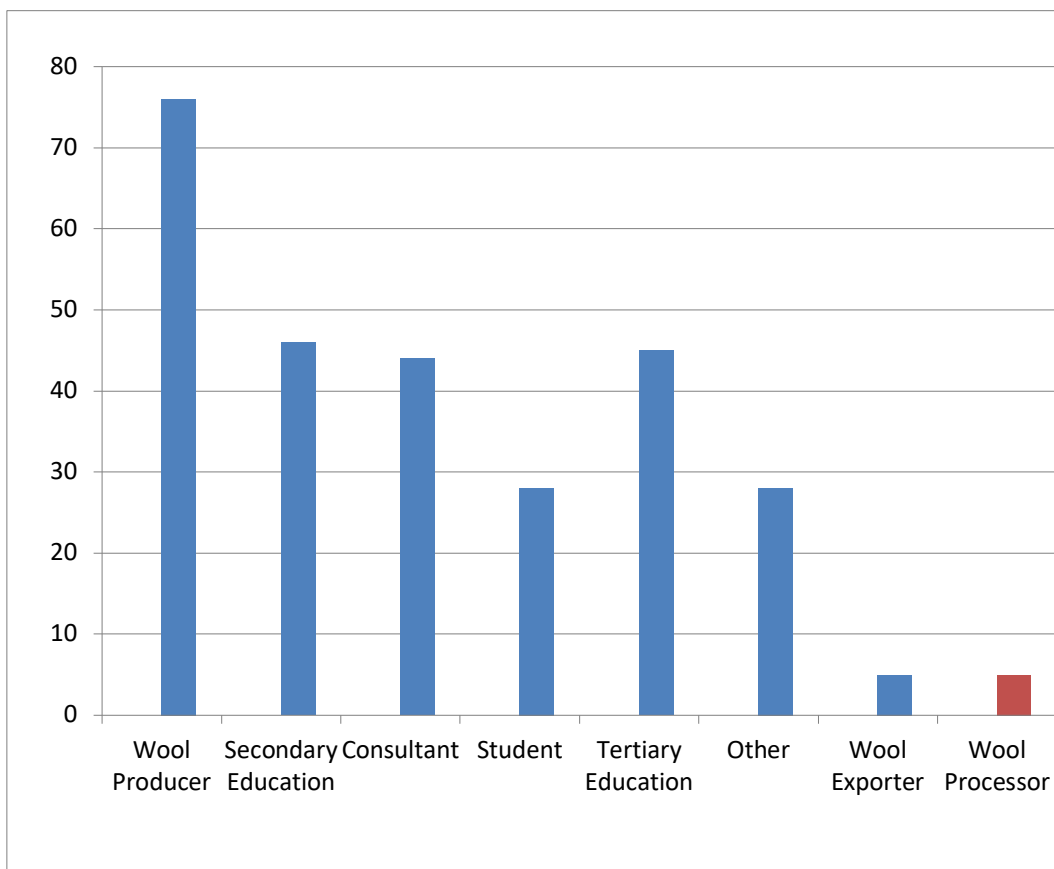
As at 30<sup>th</sup> June 2020, a total of 40 such Licences have been issued.

The Student Version provides all the same material, except for the MSWord versions, and all past versions. It is designed specifically for individuals who wish to use the materials for reference purposes.

As at 30<sup>th</sup> June 2020, a total of 237 such Licences had been issued.

Since the inception of the on-line modules the number of licences has been steadily increasing year by year.

The distribution of Licences by sector is shown in the following graph.



All the Trust's IP can be downloaded from its website, [www.woolwise.com](http://www.woolwise.com).

Access to the Australian Sheep CRC Resources is subject to the provisions of the Assignment Deed and is provided via 3 status levels:



- A **Visitor** is able to view the modules and topic synopses but cannot access any of the module documents.
- A **Member** is a registered user and is only able to access PDF versions of the resources. Member access is provided for anyone who accepts the terms of use and registers on the site.
- An **Educator** is a registered user wishing to utilise these resources as research and/or reference materials. An Educator can access MS Word versions of the resources as well as PDF versions. Educator access is provided to appropriate registrants by the site Administrator.

**Other IP**

All other IP is available, without restriction on woolwise.com, namely:

- CRC for Premium Quality Wool Resources
- Australian Wool Textile Training Centre Resources
- AWET Resources
- Other miscellaneous resources.

**Review of 2019/20**

Total education funding during 2019/20 was \$429,206.

**Allocation of Funds by Educational Sector**

Expenditure by sector for the year under review was:

<b>Sector</b>	<b>%Range</b>	<b>Mid-point</b>	<b>\$Invested</b>	<b>Actual%</b>
Schools	2% - 5%	3.50%	\$15,000	1.7%
VET - Production	5% - 10%	7.50%	\$18,000	4.2%
VET - Fashion Schools	10% - 23%	16.50%	\$43,000	11.0%
Undergraduate	65% - 80%	72.50%	\$349,961	83.1%
			<b>\$425,961</b>	<b>100.0%</b>

**Undergraduate Studies – Wool and Sheep**

Delivery of Sheep and Wool Modules by UNE

Direct funding to UNE to support the delivery of the Wool and Sheep Modules via the hub and spoke model was \$150,000.

Subsidies to external institutions

Under this arrangement the Trust contributed \$44,500 during 2019/10. These subsidies are paid directly to the external institutions based on enrolment data provided by UNE.

Undergraduate Cooperative Scholarships

To encourage enrolments in the modules being offered by UNE, the Trust co-funds a number of under-graduate scholarships for students across Australia who wish to undertake sheep and wool education training.

Each scholarship is valued at \$6000 and they are generally offered to students in the second or third year of their degree.

Other co-funders include industry companies and industry organisations.

The number of scholarships offered each year depends on the total funds available from co-funders.

In 2019/20 one new undergraduate scholarship holder was selected.

Undergraduate Project and Master by Coursework Scholarships

There were 19 applications for the 15 scholarships offered by the Trust for 2020. There were 15 successful applicants:



## Sydney University

### Amy Phillips

The proposed research involves the comprehensive in vitro assessment of semen (~100 unique ejaculates) destined for commercial artificial insemination programs. Numerous insemination programs across multiple regions will be used to build a database linked to the fertility results of thousands of inseminations. Basic as well as novel and advanced semen assessment techniques will be employed to investigate factors which may be linked to the fertility of ram spermatozoa following laparoscopic artificial insemination. Computer assisted sperm analysis, a variety of flow cytometric assays (e.g. oxidative status, DNA integrity, membrane disorder), proteomic assessment and possibly functional assays related to cell-cell interactions with the female reproductive tract and immune cells will all be used to investigate the potential function and fertility of each sample. These results will be correlated with pregnancy scanning outcomes in each program and the results matched back to each individual ejaculate.

The project will determine which measures of semen quality are correlated to fertility following laparoscopic artificial insemination. Results will allow for model-based predictions of fertility, a crucial selection tool for sheep producers when selecting samples for use in an AI program. These results will be published in an open access high-impact international journal. More broadly this work is expected to increase the success of sheep artificial insemination programs.

### Charlotte Edwards

Owing to the extensive nature of the sheep industry and the difficulty monitoring animals, producers are becoming increasingly interested in the development of a remote monitoring technology to track the reproductive behaviour of individual animals. In particular identifying mating events between rams and ewes and lambing events. Both of which would provide insight into sources of reproductive wastage in the Australian Wool Industry.

University of Sydney researchers have recently established a mating signature of ram behaviour using an accelerometer-based on-animal sensor developed by AWI and Digibale. This project will further this preliminary research through the integration of Bluetooth and trilateration technology. With this additional technology, I will utilise machine learning models to evaluate the ability of the sensor to: 1) accurately

determine when a mating event occurs, 2) identify the animals a mating event occurs between, and 3) predict onset of oestrus in ewes through validation with blood hormone profile and/or transrectal ultrasound.

The same technology will also be used to monitor lambing ewes to determine a signature of a lambing event. The data collected will then be used to develop algorithms to incorporate into the Smart Tag in order to provide the industry with cutting edge technology beneficial for improving the efficiency and success rate of sheep production.

This research conducted on sensing technologies seeks to determine their impact on reducing reproductive wastage in the industry. Precise remote detection of time of oestrus, ovulation and lambing is an application that is relevant to the wool/textile industry for reasons including:

- Date of conception and narrow window of lambing known before end of joining --> allowing earlier nutritional management of pregnant ewes to maximise ewe and lamb health and feed utilisation.
- Infertile and sub-fertile individuals can be identified and ID'd at joining
- Sire(s) that have mated each ewe can be ID'd.
- Ram mating performance and libido test can be measured and carried out.
- individualised time of AI per ewe in artificial breeding programs based on onset of oestrus and time of ovulation.

This new technology brings lots of exciting possibilities to improve both natural joining and AI protocols and therefore the industry as a whole. This study is imperative to the development of this technology and by its completion should generate a tangible solution for the industry.

### Emma Sugiono

The aim of the project is to assess and compare various existing and novel analgesics for pain relief of routine husbandry procedures in Merino sheep using a multi-parametric analysis. The analgesics that will be assessed include injectable meloxicam (Metacam40, Boehringer Ingelheim), buccal meloxicam (Buccalgescic OTM, Troy Laboratories), a novel injectable sustained release formulation of meloxicam



(Australian Custom Pharmaceuticals) and topical anaesthetic (Tri-Solfen, Bayer Animal Health), administered alone and in combination with the various aforementioned meloxicam formulations.

The study will involve establishing a model of pain and inflammation in the sheep test subjects. Pain/inflammation will be artificially stimulated via oil of turpentine, providing a mild inflammatory response in the front leg of each test sheep. There will also be a control group that will not receive any form of pain relief. Pain will be assessed using a multi-parametric analysis of numerous variables including behaviour, plasma/serum biomarkers, acceleromometer data, infrared thermography and wound morphology. Pain will be assessed in both the acute and chronic periods following husbandry procedures. From these pain markers, we will be able to formulate and deduce correlations between the response prior to and after pain relief administration against drug type, concentrations/ mixtures, and site of administration to determine the most effective and efficient mode of analgesics for pain relief in Merino sheep.

This project will directly compare and assess the efficacy of novel and existing analgesics for routine husbandry procedures performed on sheep. The use of a multi-parametric analysis and assessment of outcomes over both the acute and chronic period will assist in determining current achievable 'best practice' for lamb marking procedures. The outcomes of this study are anticipated to potentially aid in improving the efficiency of the wool industry through additional knowledge on pain mitigation and longer lasting pain relief, with hopes to offer an option for enhancing current pain relief practices that are government and board approved in Merino sheep in order to improve wool quality over time, and thus improve the economic potential of the Merino wool industry.

### **Kaitlyn Annesley**

Fleece weight provides a beneficial measurement of individual animal productivity for sheep producers but is time consuming to determine, as it requires individual fleeces to be weighed at shearing. This research project will compare pre- and post-shearing liveweights of merino sheep to determine if this is an appropriate alternative method for establishing the accurate fleece weight of individual animals. It is envisaged data collection will occur on several properties where sheep and their fleeces will be weighed

with consideration of variables such as season, gender, age, strain and time off feed considered. It is likely two large sheep producers will be utilised, including the Poojinook Merino Stud at Jerilderie NSW that shears in autumn and the University of Sydney 'Arthursleigh' commercial farm at Marulan NSW that shears in spring. Both properties have the capacity to weigh sheep pre- and post-shearing as well as weigh individual fleeces. Individual sheep RFID tags will enable liveweight and fleece data to be

matched. Data from a range of sheep categories (e.g. age, gender, strain, time off feed) will be collected to determine the correlation between pre-post-shearing liveweight and fleece weight for individual animals over two seasons (e.g. autumn and spring). Numbers to be included for each sheep category to determine statistical significance will be finalised following consultation with a statistician. Animal ethics approval will also be obtained.

The desired outcome of this project would be to accurately determine fleece weight based on pre and post- shearing liveweights. Other expected outcomes include an understanding of what factors will influence the difference between fleece weight and liveweights. AWI General Manager Research, Jane Littlejohn, has expressed interest in this pilot project for potential future AWI funding depending on outcomes.

### **Melissa Annetts**

A warming climate has implications for livestock production systems including wool and sheep meat enterprises. Databases which collate information from sheep pregnancy scanning contractors offer an opportunity to investigate variation in reproductive efficiency over time and make links to climatic conditions. This project will utilise large volumes of historic data obtained from industry collaborators to investigate the fertility of ewes by region, season and year. Information will inform our understanding of average rates of reproductive efficiency in the sheep industry, facilitate grower benchmarking and identify areas for future research.

### **Sienna Doolan**

This project will monitor the process of lambing and lamb survival through the use of remote weighing stations and EID, and apps for collection of lambing data. Data obtained from these stations can be used to quantify the effects of



weather and nutrition on the general health of the ewe and lamb and if their relationship and behaviour has any effect on the rate of lamb growth.

It is expected that ewes with a healthy weight and body condition range will give birth to healthy lambs with enough body weight to survive through adverse weather events. These resilient individuals are then able to have a strong relationship with their mother, allowing continual access to milk which supports more rapid growth. Lambs of a smaller size are expected to struggle in harsh weather conditions and may not survive. Information obtained from this study can then be applied on farms to reduce incidences of lamb mortality where possible and facilitate more rapid growth of lambs from birth until sale.

### **Sumama Singareddy**

Clover disease, caused by the ingestion of phytoestrogenic clovers, negatively impacts the reproductive function of sheep and has been shown to reduce overall flock fertility. Research in mouse models also indicates potential transgenerational effects to males exposed to phytoestrogens in utero. This project aims to inspect the incidence of phytoestrogenic clovers in South Australian pastures and observe the links between the prevalence of these pastures and their effect on sheep reproductive biology and physiology. This project will utilise current data on flock fertility and pasture samples, as well as make use of abattoir material. New data will also be collected via collaboration with marking contractors on the occurrence of congenital urogenital abnormalities in lambs that have been exposed to phytoestrogenic clovers.

Through the completion of this research project we expect to be able to report on the prevalence of phytoestrogenic clovers in South Australian pastures and determine the link between their presence and decreasing flock fertility. We also aim to be able to establish whether exposure of pregnant ewes to phytoestrogenic clovers increase the incidence of congenital urogenital abnormalities in male lambs, as has been indicated in mouse models.

### **Taylor Cole**

Previous research has shown that epididymal sperm is easily destroyed by the immune response in the ewe, but regular ejaculated semen- sperm with seminal plasma- is protected from this response. This research project aims to examine which proteins in seminal plasma are responsible for modulating this interaction and test the effects of cryopreservation on these proteins. If these proteins can be supplemented into cryopreserved semen, fertilisation may be more successful from a simpler cervical AI rather than laparoscopic AI. We will use a novel neutrophil-sperm interaction assay that we have pioneered in our laboratory to investigate the efficacy of proteins such as BSPs and EDIL3 to modulate this sperm-immune interaction that takes place in the female and regulates in part sperm transit.

This project will have the following outcomes:

- Identification of seminal plasma proteins that modulate interaction of ram sperm with neutrophils
- Publication of findings in a peer reviewed manuscript.

### **Latrobe University**

### **Emma Halliwell**

Project Name: Isolation of eosinophils from the blood and tissue of the Australian Merino

Project Aims: This project aims to

- determine the best method for isolating eosinophils from blood and tissue, and
- develop in vitro assays to determine how eosinophils effect worm fertility and length.

Experimental Design: an in vitro trial of mechanisms of eosinophil function, collected from sheep naturally infected with roundworms. The focus of this project will be placed on the isolation of eosinophils from tissue, as the response of these cells in relation to parasitic infection will most closely reflect the mechanisms demonstrated in vivo, however, comparisons to eosinophils isolated from blood will also be compared. Methods exist for the isolation of human and mice eosinophils from blood and tissue, however, similar methods have yet to be optimised for sheep. Following successful isolation, eosinophils and roundworm larvae will be incubated together in a laboratory and the effect of eosinophils on the larvae will be assessed via measures of larvae viability; motility and length. We expect to find a difference in motility and length of larvae exposed to eosinophils collected from resistant and susceptible sheep. For statistical analysis, distributions for larvae viability (motility, length) for





each group (control vs treated) will be followed by generalised linear mixed modelling.

Training will be provided in blood sampling of sheep, tissue collection post-mortem, immunohistochemistry and histopathology, microscopy and image analysis.

## Murdoch University

### Brittany Bolt

The profitability of Merino sheep enterprises is largely determined by stocking rate and the amount of wool and surplus sheep produced per hectare, rather than the productivity of individual animals such as clean fleece weight and growth rate or liveweight (Blackshaw and Ough 2016). Despite this, there is a strong emphasis on increasing fleece weight and liveweight in most Merino sheep breeding objectives including several standard industry indexes in Australia (Brown and Swan 2016). This results in a disconnect between increasing per head production and profitability of Merino based enterprises per hectare. The "Selection in a Resource Limiting Environment" project (RLE) shows that optimum stocking rate and level of grain feeding has a tight relationship with change in whole body energy stores and feed intake. The profit equations developed by RLE quantify these differences in optimum stocking rate and level of grain feeding based on feed intake and differences in body energy stores. Therefore, having measurements of body composition (lean and fat) could greatly improve the estimation of a sheep's potential profit per hectare. The selection of sheep on a per head production basis has inadvertently led to increased inter genotype variation in the size and shape of progeny and may explain some of the potential intake and fatness differences that are observed between genotypes. Currently, measurement of body composition requires the use of DEXA scanning which is not commercially applicable and the use of condition scoring can only predict the ~55-60% of body composition. Therefore, the aim of the current project is to develop the use of frame size measurements in sheep for use in combination with condition scoring to enhance the accuracy of on-farm prediction of body composition.

Adult Merino wethers (n=320; 2017 drop), the progeny of 15 industry sires, from the existing MLP project at Ridgefield, Pingelly, WA will be allocated to one of 10 blocks, balanced for sire, feeding group, condition score and liveweight and allocated to individual pens at Katanning Research Facility. Following a 10-day acclimation period, wethers will be fed at 100% of maintenance during the first 35-day period followed by either ad libitum or 60% of maintenance for 35 days. On day 0, 35 and 70 wethers will be weighed, and condition scored, before being scanned using dual X-ray absorptiometry (DEXA) for assessment of body composition. Whole body energy was derived by valuing tissue components as follows: whole body energy (MJ) = (Kg fat x 35.9 MJ) + (Kg lean x 5.31MJ). Frame size will also be calculated at these timepoints by measuring the following body dimensions: shoulder height, chest circumference, length of back and pelvic width, both manually and by collecting a photographic image as they walk through a crate. These measurements will provide data that can create a wether body size profile (similar to BMI in humans) which, in combination with condition score, will be used to develop on-farm predictions of body composition.

The outcomes of this project are:

- Improvement of producer estimation of sheep body composition
- Allow producers to select sheep that will display greater resilience during feed shortages
- 3. Selection of sheep that maintain body condition and/or wool/meat production at a higher stocking rate.

### Brodie Metcalfe

Traditionally, the majority of all sheep in Western Australia are shorn in spring after lambing. The timing of shearing is largely driven by the availability of shearers and the mitigation of the flystrike risk over summer. With a growing number of producers opting to shear sheep every six to eight months to meet market specifications, shearing now frequently coincides with mid pregnancy. Mid-pregnancy is when the foetus is undergoing developmental changes that are crucial to peri-parturient survival such as the proliferation of brown adipose tissue to be used as an energy source after birth. Mid-pregnancy shearing is associated with a short terms stress due to shearing, as well as a longer-term stress caused by the loss of insulation and increased exposure of the ewe. There is substantial evidence, mainly from the UK and NZ, that mid-pregnancy shearing and the associated stress during the colder autumn/winter months is associated with improvements in foetal growth and development, leading to increases in birth weights of multiple-born lambs and improved survival to weaning. These improvements have never been investigated or quantified in



Merinos, the predominant sheep breed in Western Australia, to determine the potential improvement to lamb survival and thus welfare.

To investigate the impact of mid-pregnancy shearing in Merino ewes on lamb survival, 200 pregnant Merino ewes will be selected, and half will be shorn during mid-pregnancy. Ewes will lamb on 1Ha plots (12 ewes per plot) where ewes are stratified by shearing, weight, body condition and number of lambs (single, twin). During lambing, survival behaviours (e.g. time to stand and suckle) will be observed and birthweight will be recorded. Growth rate and survival to weaning will be recorded.

The project will have the following key outcomes

- Provision of guidance on management methods which improve lamb survival and welfare in the sheep industry in a way that fits with changing management practices in the industry.
- Development of a welfare assessment tool based on behavioural measurements captured during the experiment.
- Provision of undergraduate education opportunities in the sheep and wool industry with experience gained in conducting rigorous scientific research in close collaboration with industry and designed with extension at the forefront
- Communication of key outcomes to industry through producer field days (e.g. DPIRD Katanning Research Facility Field Day) and publications (e.g. Ovine Observer article).

### **Jessica Hartley**

This project will investigate the effect supplementary feeding ewes at lambing using self-feeders or trail feeding on ewe behaviour and lamb survival. This experiment will test a 2x2 combination of birth type (single or twin) and supplementary feeding method (self-feeders or trail feeding) on the survival of lambs to marking. Research will be conducted at 14 on-farm research sites across Western Australia, South Australia and Victoria during 2020. Mixed age single- and twin-bearing ewes will be randomly allocated to a feeding method and lambing paddock on day 130 ( $\pm 10$  days) from the start of joining. Sensor and/or other remote technology will be used on up to 4 of the research sites to investigate the relationships between the feeding method and ewe behaviour. This research will contribute to a three-year project led by Dr Lockwood and Dr Hancock which is investigating the impacts of various methods of supplementary feeding ewes during lambing on ewe behaviour and lamb survival across southern Australia.

This project will contribute to the development of guidelines for sheep producers on supplementary feeding methods during lambing. This will enable them to make better informed decisions when supplementary feeding ewes to improve lamb survival. The project will contribute to the MISP and SISP target of a 5% increase in marking rates. Improved lamb supply will help rebuild the national sheep flock and counter the displacement of Merino ewes by those of non-Merino breeds. It will demonstrate improvements in animal welfare and improve transparency and market access for wool and sheep meat.

### **Kirsty Cunningham**

Knowing the approximate date of birth of lambs is important to enable more precise management of ewes during pregnancy and lambing and for improving the accuracy of breeding values, particularly when ranking potential sires for liveweight and growth. When birth date is not recorded, growth traits for animals that are born earlier in the lambing cycle are overestimated and can subsequently decline when they sire progeny with a natural range in birth dates. Birth date is difficult and expensive to measure in large flocks, and for this reason is not recorded routinely, particularly in extensive sheep production systems. There have been several published studies where sensors have been used to predict birth date in cattle and sheep for welfare purposes but all of them have used direct or indirect indicators of parturition to estimate when birth is commencing with mixed results. To our knowledge few studies using sensors have attempted to predict date of birth by measuring movements and behaviour at the time of conception so that date of birth can be estimated well ahead of the birth event for sheep.

Date of conception can be estimated by fitting rams with harnesses and crayons that mark ewes when they are showing oestrus behaviour. However, this procedure is laborious and intrusive, involving repeat mustering of the sheep to assess and record crayon marks. Consequently, this technique is only appropriate as a research tool or for artificial breeding purposes. New sensor technology that measures the "closeness" or proximity of sheep to each other offers a new method of measuring interactions between ewes and rams that could assist in estimating the day of conception remotely and practically. For



example, remote sensors were used recently to measure the maximum number of interactions between ewes and lambs to determine their pedigree. It is well documented that rams and ewes are attracted to each other with increased preference during oestrus. Using sensors to measure the interactions between ewes and rams during oestrus may then identify accurately date of conception and, from this date of birth can be predicted. We therefore hypothesise that by measuring the number of interactions between ewes and rams during joining, as an indicator of date of conception we can predict the date of birth of lambs accurately.

We expect that we can predict the birth date of lambs accurately (within several days of actual birth date) by measuring when ewes have maximum closeness/proximity with the ram during joining. This will contribute to more precise ewe management and improved breeding values.

#### **University of New England    Zoe Pickford**

The research project will be focused on measuring phenotypic differences in wool growth and fibre diameter in 6-month old Merino wethers. These wethers are the offspring of sires with genetic diversity in a number of wool traits from the Merino Ewe Lifetime Productivity Project. (MLP).

Experimental Design:

- 120 6-month old wethers from Trangie research station
- All wethers shorn and settled into UNE CART facilities on base diet (cereal and lucerne chaff) in group and individual pens.
- All sheep will be dye band for wool growth measures 30 days after entering the animal house. A measure of wool growth rate will be made over a 30-day period and measurements for yield and fibre diameter.
- During a 60-day period, daily feed intake will be recorded, weekly liveweight, body composition scans and blood samples (skin prick test) taken for measurement of 3 key metabolites.
- At the end of the 60 days, two phenotypes will be selected based on muscle and fat composition and wool growth data.
- These 40 sheep will be fed 2 diets varying in metabolisable energy and crude protein content.
- All sheep will be measured for whole tract dry matter digestibility (DMD), carbon and nitrogen balance.

Following sacrifice around 40 wethers fed the two diets will have samples of skin and digestive tract collected for metabolite assays.

The outcomes of the project are to investigate the underlying cellular mechanisms that create a "better doer", so that genetic selection of superior sheep can reach their potential and improve productivity.

#### **Charles Sturt University    Elka Blackman**

Stress responsiveness in sheep is genetically determined, and a quantitative trait locus (QTL) has recently been identified on ovine chromosome 5. The aim of the current project will be to investigate variants in key genes within this QTL and test their association with ovine stress responsiveness. This project will use DNA from 120 high, low and medium stress responding sheep that have been extensively phenotyped for glucocorticoid release (cortisol) when challenged with bacterial endotoxins (stressor). I have already identified candidate genes through bioinformatic analysis of online databases with the ovine CD14 gene considered as a suitable candidate. Subsequently wet-lab PCR/Sequencing will be used to genotype the resource population. Statistical analysis will identify variants associated with cortisol responsiveness, which could then be used to inform genetic selection for improved health and welfare.

The current project will establish whether ovine CD14 genetic variants contribute to bacterial endotoxin induced stress responsiveness. The project will also evaluate the polymorphic status of CD14 in Australian sheep populations and the degree to which CD14 variants influence stress responsiveness in these sheep. Overall, results from this study will characterise a previously described QTL for stress responsiveness in sheep and provide novel insights into the efficacy of selective breeding programs aimed for or against the ovine CD14 variants in order to improve resilience, health and productivity of Australian sheep.

All scholarships were awarded prior to the on-set of the COVID-19 pandemic. Consequently, some of the students projects had to be modified and/or their programming deferred. The Trust has worked with the students and their supervisors to manage this disruption of their original plans.

Unfortunately, two candidates were forced by personal circumstances, to withdraw from their honours year. Another candidate, who had deferred her project from 2019 to 2020, also withdrew, again for personal reasons.

#### Alistair Mackenzie Scholarship

AWET co-sponsors this scholarship with WISS, contributing \$10,000. The 2020 scholarship was awarded to Lachie Brumpton.

Lachie is from Mitchell in South West Queensland. His grandfather registered a Merino stud in 1952 which is now managed by his father. He has grown up with Merino sheep and developed a passion for them. This led to his parents registering, in 2006 a Poll Merino stud, Jolly Jumbuck Poll Merino Stud, in the name of Lachie, his brother and his sister. Lachie's ambition is to pursue a career in sheep breeding to produce a heavy cutting sheep optimised for local environmental conditions, as well as producing quality meat that can be competitive with that from sheep bred primarily for meat production.

He enrolled at Marcus Oldham to better his knowledge in business management so that he can apply this knowledge to operate a successful merino sheep enterprise.

#### **Vocational Education Training - Production**

The Trust offers VET sector scholarships, each valued at \$3,000, to students attending institutions in this sector.

In 2019/20, three (3) of these were awarded to students at Tocal College in NSW and three (3) to students at Cunderdin in WA.

#### **Vocational Education Training – Fashion Schools**

During 2019/20, AWET distributed grants, totalling \$43000 to selected Fashion Design students, to facilitate purchase of wool-rich fabric for their final year design projects.

25 grants were provided, allocated to RMIT, Whitehouse Design, UTS, QUT, TAFE SA and Curtin University. The institution is responsible for selecting its recipients.

The grants were allocated as follows:

<b>Institute</b>	<b>Program</b>	<b>Grants</b>	<b>\$</b>
RMIT	Bachelor of Fashion (Design & Technology)	4	\$6000
	Bachelor of Fashion (Design) (Hons)	4	\$8000
Whitehouse Institute of Design	Bachelor of Design	6	\$9000
UTS	BA Hons Fashion and Textile Design	4	\$8000
QUT	Bachelor of Design (Hons)	2	\$4000
TAFE SA	Bachelor of Fashion Design	3	\$4500
Curtin	Bachelor of Arts (Fashion)	2	\$3000

AWET and AWI have jointly been considering sponsoring in a joint China Extension Program with AWI, leveraging upon the Trust's Fashion Students Grants program, whereby 3 recipients of its grants will be offered the opportunity to:

- Participate at a student graduate collection industry event in Beijing;
- Visit mills/manufacturers in China;
- Meet and greet with an established Chinese designer/brand; and
- Participate in a National Museum student graduate collections display.

It was proposed the students will submit the following:

- Look book, sketches and folio of graduate collection;
- Completion of the online Wool Appreciation Course;
- 1,000-word statement about:
  - theme/concept of final collection;
  - career aspirations;
  - their journey using wool; and
  - what an opportunity like this would mean to the student.

In principle agreement was reached for the Program to proceed in 2020, but it was cancelled due to the COVID-19 pandemic. Instead a modified program, the Voyager Program, restricted within Australia, has been launched for late 2020.

During early 2020 four additional institutes were invited to participate in the grants program, increasing the total number of grants to 30.

<b>Institute</b>	<b>Program</b>	<b>Grants</b>	<b>\$</b>
Box Hill Institute	Bachelor of Fashion	1	\$1500
Holmes Glen Institute	Bachelor of Fashion Design	1	\$1500
TAFE NSW	Bachelor of Fashion Design	2	\$3000
LCI Melbourne	Bachelor of Fashion and Costume Design	1	\$1500

## **Schools**

The Trust's primary investment in the Schools sector has been via contributions to AWI's Wool4Skool Program (<https://www.wool4school.com/>). The contribution in 2019/20 was \$15,000.

## **AWI National Merino Challenge**

The NMC is an annual Australian Wool Innovation (AWI) initiative designed to allow young people to engage with the Merino industry by developing their knowledge, skills and networks. It involves presentations and demonstrations by industry professionals. Students participate in seven 'mini-challenges' over 2 days, testing their knowledge of Merino fleece, production, breeding and selection.

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

In past years AWET has provided funding to subsidise the travel costs of contestants. However, following the disruption to this competition by the COVID-19 pandemic, it was cancelled and will resume as a biannual competition in 2021.

## **New Initiatives**

### Hub-and-Spoke delivery of Sheep and Wool Education

When the second CRC commenced in 2001 AWET initiated consultations with all Australian universities to develop a strategy for providing detailed undergraduate education covering all aspects of the wool pipeline, from production, processing, metrology and marketing. The issue facing the wool industry at that stage was that no university in Australia provided a full range of specialist courses in wool and sheep production. The University of New England (UNE) offered courses in wool and meat production and aspects of marketing. The University of Adelaide offered a single course offering all aspects of wool production and processing and La Trobe University offered an elective option for wool growth and lamb production as a case study in one of their final year units. With the demand for specialist training in all aspects of sheep and wool production being too low for any university to justify employment of specialist staff and the cost of teaching small groups, a new approach was required. The model proposed by AWET was to develop a "hub and spoke" system, whereby high-quality teaching material, developed with input from all universities and industry specialists, could be delivered nationally via a distance education model, with one university acting as the "Hub" and the others as the "Spokes". AWET and the Sheep CRC agreed to combine resources in order to develop the model.

Work commenced on developing 10 courses for national delivery. This involved preparation of 220 undergraduate lecture topics with input from a wide range of specialists including university academics, as well as research and industry specialists. The format for lectures was carefully designed to meet uniform standards and a structure designed to achieve clear learning outcomes.

UNE was selected as the "Hub" for delivery of these courses. This arrangement continued with the transfer of the IP from the CRC to AWET in 2007.



Between 2007 and 2019 AWET invested \$4.22 million in the delivery of the wool and sheep modules with further investment in upgrading and maintaining the teaching resources, supported by MLA. This commitment to specialist education in the area of wool and sheep production has made an invaluable contribution to the maintenance of skills and knowledge required for the successful progression of the Australian sheep and wool industries.

However, changing curriculum structures in spoke Universities is making it increasingly difficult for their students to enrol in and receive credit for completing external units.

The COVID-19 pandemic has forced a massive increase in on-line learning. UNE is leveraging its on-line teaching capacity during the COVID-19 crisis and in particular developing on-line online exam technology, officially called "remote invigilation", which allows students to take an exam in their own space while still under supervision.

The Hub and Spoke model as a mechanism for delivering wool and sheep education, is evolving to suit changing circumstances in education delivery. This should enable UNE to attract enrolments for second tier Universities where there is interest in sheep and wool but where enrolments are very small. It also opens up opportunities to develop short courses for particular groups who wish to increase their expertise in particular areas but are unwilling or unable to pursue a full degree.

### ASKBILL and RamSelect

The Sheep CRC funded the development of two on-line applications for use by merino sheep producers:

#### *RamSelect*

RamSelect is designed to simplify the use of Australian Sheep Breeding Values (ASBVs) so that you can quickly and easily identify the right genetics for your flock using objective data from Sheep Genetics— MERINOSELECT, LAMBPLAN and DOHNE.

RamSelect searches all rams currently listed for sale and selects those that align with a wool producer's specific breeding objective.

RamSelect features benchmarking tools so that producers can better manage their ram team, compare their ram selections to national averages and track team performance and impact over time.

#### *ASKBILL*

ASKBILL is a predictive tool for sheep producers. ASKBILL complements the producer's grazing knowledge with detailed predictions for their livestock and pastures to help with management decisions. It provides information for an individual property using short and long-term weather forecasts, stock and pasture information. While this information may be available from different sources, ASKBILL integrates this information in one source so producers can see, at a glance, the risks to their property and livestock, and opportunities to improve productivity.

As a web-based tool on a computer or tablet, ASKBILL provides producers with information on:

- Flystrike and worm infection
- Extreme heat and cold weather events
- Pasture availability and feed budgets
- Live weight and condition score
- Information on livestock and their performance for buying and selling.

In winding up its activities the CRC commercialised the on-going promotion and development of both applications, making them available to producers for a fee.

The CRC recognised the potential educational uses of both applications and brought a proposal to AWET to make them available for this purpose. The CRC proposed transferring residual funds to the Trust to facilitate this proposal. The Trustees made it clear that any support the Trust might supply would be contingent on the apps being available to educators and their students for free.



This initiative has resulted in the following outcomes:

- A supplementary interface for both apps has been provided specifically for educators and students, so that practical exercises can be developed and utilised for educational purposes.
- AWET has contracted to provide on-going funding for three years to maintain and improve both interfaces and to provide support to educators specifically in using the apps.
- The CRC has transferred \$160,000 to AWET for ongoing support of the educational use of RamSelect and ASKBILL subject to the following guidelines:
  - o AWET will use both the principle as well as the investment income to support activities as required in consultation with UNE and industry.
  - o The funds will primarily be used to ensure that the educational use of the apps (and any future enhancements) by education institutions and students is free.
  - o AWET, in consultation with UNE, will impose conditions on participating educational organisations to encourage collaboration between organisations, sharing of improvements created by individual organisations and sharing of results and educational experience with other organisations.
  - o AWET may allocate funds to promote and expand the use of the web-based apps amongst educational institutions and to publicise the outcomes of the initiative and encourage co-investment by industry and educational organisations.
  - o Details of project funding will be provided in the Trust's annual report.
  - o It is recognised that as the project proceeds circumstances may occur requiring modification of these guidelines.

The ASKBILL and RamSelect training sites, supported by AWET, are now operational with training materials and resources loaded onto the sites

<https://askbill-training.une.edu.au/#/home>

<https://ramselect-training.une.edu.au/#/home>

A number of secondary and tertiary educators are already using the sites and accessing support from UNE as they familiarise themselves with the technologies and create accounts.

AWET has initially utilised the assigned CRC funds to provide training to educators in the use of these applications. Despite the disruption caused by the COVID-19 pandemic this training is proceeding.

During 2019/2020 AWET has invested \$41,784 in supporting the educational interfaces for both applications and in providing training for educators.

## **Consultative Mechanisms**

Having initially focused on funding the establishment of the "hub and spokes" model for Sheep & Wool education delivered by UNE, Trustees believe input from Universities making up the "spokes" of this model is also important. To this end, the Trust funds an Annual Meeting with the "wool product champions" from all Universities incorporating Sheep & Wool components in their undergraduate Degrees.

The most recent Meeting was held in July 2020.

The Trust also engages in annual consultations with the Fashion & Design Schools. The most recent Meeting was also held in July 2020.

## **Distribution**

This Annual Report has been prepared for the Boards and Executives of those organisations that are responsible for appointing the Trustees, namely, AWTA Ltd, AWI and FAWO (now WIA).

It is being distributed together with the Trust's Annual Financial Report for 2019/20 and the Auditor's Report.



The copy of the report is lodged on AWET's website, to conform with requirements of the Assignment Deed for the educational IP produced by the Sheep CRC.

AWET's financial report is also lodged with the ACNC.

A handwritten signature in blue ink, appearing to read 'M.A. Jackson', written in a cursive style.

M.A. JACKSON  
CHAIRMAN OF TRUSTEES

AUSTRALIAN WOOL EDUCATION TRUST  
 ABN 12 886 519 613  
**INCOME STATEMENT FOR THE YEAR ENDED 30TH JUNE, 2020**

	Note	2020 \$	2019 \$
Revenue	2	380,879	305,150
Grant Received	2	161,652	0
Education Funding Projects	4	(425,961)	(429,206)
Trustee Expenses		(28,801)	(53,106)
Insurance Premiums		(2,843)	(2,849)
Investment Management Fees		(75,174)	(59,666)
Secretarial Expenses		(29,865)	(30,141)
Other Expenses		(17,466)	(8,081)
Surplus/(Deficit)		<u>(37,579)</u>	<u>(277,899)</u>
<b>Other comprehensive income</b>			
Net change in fair value of financial assets designated at fair value through other comprehensive income, net of tax		(289,027)	556,300
<b>Total comprehensive income for the year</b>		<u>(326,606)</u>	<u>278,401</u>

The accompanying Notes form part of these financial statements.

AUSTRALIAN WOOL EDUCATION TRUST  
 ABN 12 886 519 613  
**BALANCE SHEET AS AT 30TH JUNE, 2020**

	Note	2020 \$	2019 \$
<b>CURRENT ASSETS</b>			
Cash and Cash Equivalents	5	154,975	96,989
Receivables	6	100,043	44,305
Other Current Assets	7	2,128	2,134
<b>TOTAL CURRENT ASSETS</b>		<u>257,146</u>	<u>143,428</u>
<b>NON-CURRENT ASSETS</b>			
Financial Assets	8	10,080,078	10,519,323
<b>TOTAL NON-CURRENT ASSETS</b>		<u>10,080,078</u>	<u>10,519,323</u>
<b>TOTAL ASSETS</b>		<u>10,337,224</u>	<u>10,662,751</u>
<b>CURRENT LIABILITIES</b>			
Payables	9	25,224	24,145
<b>TOTAL CURRENT LIABILITIES</b>		<u>25,224</u>	<u>24,145</u>
<b>TOTAL LIABILITIES</b>		<u>25,224</u>	<u>24,145</u>
<b>NET ASSETS</b>		<u>10,312,000</u>	<u>10,638,606</u>
<b>EQUITY</b>			
Donations Contributed	1(e)	7,000,000	7,000,000
Retained Surplus		2,160,056	2,197,635
Reserves		1,151,944	1,440,971
<b>TOTAL EQUITY</b>		<u>10,312,000</u>	<u>10,638,606</u>

The accompanying Notes form part of these financial statements.

AUSTRALIAN WOOL EDUCATION TRUST  
 ABN 12 886 519 613  
**STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 30TH JUNE, 2020**

	Donations Contributed \$	Retained Surplus \$	Financial Assets Reserve \$	Total \$
<b>Opening Balance as at 1 July 2018</b>	7,000,000	2,475,534	884,671	10,360,205
Surplus/(Deficit)	-	(277,899)	-	(277,899)
Other comprehensive income	-	-	556,300	556,300
<b>Closing Balance as at 30 June 2019</b>	<u>7,000,000</u>	<u>2,197,635</u>	<u>1,440,971</u>	<u>10,638,606</u>
<b>Opening Balance as at 1 July 2019</b>	7,000,000	2,197,635	1,440,971	10,638,606
Surplus/(Deficit)	-	(37,579)	-	(37,579)
Other comprehensive income	-	-	(289,027)	(289,027)
<b>Closing Balance as at 30 June 2020</b>	<u>7,000,000</u>	<u>2,160,056</u>	<u>1,151,944</u>	<u>10,312,000</u>

**STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30TH JUNE, 2020**

	2020 \$	2019 \$
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Interest Received	536	806
Refund of Franking Credits	34,750	28,802
Grant	161,652	0
Refund of GST Paid	5,899	(8,166)
Payments for Education Funding Projects	(409,961)	(416,206)
Payments to Suppliers for Goods and Services	(84,890)	(91,164)
<b>NET CASH USED IN OPERATING ACTIVITIES</b>	<u>(292,014)</u>	<u>(485,928)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Net cash flow from managed investments	350,000	450,000
Net cash flow from investment at call	(55,000)	50,000
<b>NET CASH PROVIDED BY INVESTING ACTIVITIES</b>	<u>295,000</u>	<u>500,000</u>
<b>NET INCREASE/(DECREASE) IN CASH HELD</b>	2,986	14,072
<b>CASH AT THE BEGINNING OF THE FINANCIAL YEAR</b>	16,989	2,917
<b>CASH AT THE END OF THE FINANCIAL YEAR</b>	<u>19,975</u>	<u>16,989</u>

**AUSTRALIAN WOOL EDUCATION TRUST**  
**ABN 12 886 519 613**  
**NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH JUNE, 2020**

**1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES**

- (a) The trustees have prepared the financial statements of the trust on the basis that the trust is a non-reporting entity because there are no users dependant on general purpose financial statements. The financial statements are therefore special purpose financial statements that have been prepared in order to meet the requirements of the trust deed and the information needs of the trustees.

The financial statements have been prepared in accordance with the significant accounting policies disclosed below, which the trustees have determined are appropriate to meet the purposes of preparation. Such accounting policies are consistent with the previous period unless stated otherwise.

The financial statements have been prepared on an accruals basis and are based on historical costs unless otherwise stated in the notes.

The financial statements were authorised for issue on 17th November by the trustees.

(b) **Measurement Of Assets**

The financial statements have been prepared on the basis that AWET's investment portfolio is classified at fair value through other comprehensive income as per AASB 9 Financial Instruments. The entity has made an irrevocable election to present gains and losses on investment in other comprehensive income. Realised and unrealised gains and losses on investments have been reflected in the Financial Asset Reserve with dividends and interest continuing to be recognised in Profit and Loss.

(c) **Income Tax Expense**

The trust is an income tax exempt charitable trust under Section 50-5 item 1.5 of the Income Tax Assessment Act 1997.

(d) **Revenue**

Interest revenue is recognised on a proportional basis taking into account the interest rates applicable to the financial asset. Dividend revenue is recognised when the right to receive a dividend has been established.

All revenue received arises from the operating activities of the trust.

(e) **Donations Contributed**

The \$3 million Founder's Donation is considered to be a capital contribution. A further \$4 million donation was received from Australian Wool Innovation Limited on 25 June 2004.

(f) **Goods and Services Tax (GST)**

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the balance sheet are shown exclusive of GST where the GST is recoverable from the Australian Taxation Office.

Cash flows are presented in the cash flow statement on a gross basis, except for the GST component of investing and financing activities, which are disclosed as operating cash flows.

(g) **Cash and Cash Equivalents**

Cash and cash equivalents include cash on hand, deposits held at call with banks and other short term highly liquid investments with original maturities of three months or less.

(h) **Comparative Figures**

When required by accounting standards, comparative figures have been adjusted to conform to changes in presentation for the current financial year.



**AUSTRALIAN WOOL EDUCATION TRUST**  
**ABN 12 886 519 613**  
**NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH JUNE, 2020**

<b>2.</b>	<b>REVENUE</b>	2020	2019
		\$	\$
	<b>Operating Activities:</b>		
	Interest from Bank Bills & at Call	608	778
	Income from Managed Investments:		
	Interest from Preference Shares, Term Deposits and at call Cash	2,454	7,573
	Dividends & Franking Credit	377,817	296,799
		<u>380,879</u>	<u>305,150</u>
	<b>Non - Operating Activities:</b>		
	Grant Received	161,652	0
	<b>Total Revenue</b>	<u><u>542,531</u></u>	<u><u>305,150</u></u>
<b>3.</b>	<b>AUDITORS REMUNERATION</b>		
	Remuneration of auditor		
	- audit	<u>2,600</u>	<u>2,550</u>
		<u>2,600</u>	<u>2,550</u>
<b>4.</b>	<b>EDUCATION FUNDING PROJECTS</b>		
	Agricultural Colleges 1 Year Scholarships	18,000	9,000
	Annual Scholarships for University Honours Students	98,000	98,000
	Education for Schools - AWI School Uniform Design Competition	15,000	15,000
	Education Institutes Meeting Expenses	5,677	5,488
	Marcus Oldham College - Alastair Mackenzie Scholarship	10,000	10,000
	Subsidies to External Institutions	44,500	25,000
	UNE Research Agreement	150,000	150,000
	UNE RamSelect / AskBill	41,784	0
	AWI China Processing Course	0	74,218
	School of Fashion & Textiles Grant	43,000	42,500
		<u>425,961</u>	<u>429,206</u>

**AUSTRALIAN WOOL EDUCATION TRUST**  
**ABN 12 886 519 613**  
**NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH JUNE, 2020**

**10. PROJECTED FUNDING COMMITMENTS**

Contracted and Conditional Funding Commitments

Payable not later than 1 year:

- UNE Agreements	172,000	150,000
	172,000	150,000

Payable later than 1 year but not later than 5 years:

- UNE Agreements	22,000	150,000
	22,000	150,000
	194,000	300,000

These projected funding commitments are contracted, with payment conditional upon agreed outcomes being delivered.

2020	2019
\$	\$

**11. RELATED PARTY TRANSACTIONS**

Remuneration of Trustees	25,311	45,784
--------------------------	--------	--------

Trustees who held office during the financial year were:

- Mr A. C. Archer
- Mr M. A. Jackson
- Mr J. W. Lewis
- Mr P.J. Sommerville
- Mr A. L. Vizard

**12. TRUST DETAILS**

The principal place of business of the trust is 70 Robertson Street, Kensington, Victoria, 3031.

**13. SEGMENT REPORTING**

The trust operates in one business and geographical segment, being a provider of funding for advancement of education in wool and wool textile science and technology.

AUSTRALIAN WOOL EDUCATION TRUST  
ABN 12 886 519 613  
**DECLARATION BY TRUSTEES**

The Trustees declare that the trust is not a reporting entity and that this special purpose financial report should be prepared in accordance with the accounting policies outlined in Note 1 to the financial statements.

The Trustees declare that:

1. the financial statements and notes, as set out on pages 1 to 7, present fairly the trust's financial position as at 30th June, 2020 and its performance for the year ended on that date in accordance with accounting policies described in Note 1 to the financial statements;
2. in the Trustees' opinion there are reasonable grounds to believe that the trust will be able to pay its debts as and when they become due and payable; and
3. having reviewed the Trust's performance during 2019/20, the Trustees are satisfied that the Trust continues to comply with the Objects of its Deed and meets its obligations as a charitable entity.

This declaration is made in accordance with a resolution of the Trustees.



M.A. Jackson  
TRUSTEE/ CHAIRMAN



P. J. Sommerville  
TRUSTEE/SECRETARY

Dated this seventeenth day of November, 2020

**INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF  
THE AUSTRALIAN WOOL EDUCATION TRUST****ABN: 12 886 519 613****Report on the Audit of the Financial Report****Opinion**

We have audited the accompanying financial report, being a special purpose financial report of The Australian Wool Education Trust, which comprises the statement of financial position as at 30 June 2020, the statement of comprehensive income and statement of cash flows for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the trustees' declaration.

In our opinion the financial report presents fairly, in all material respects, the financial position of The Australian Wool Education Trust as at 30 June 2020, and its financial performance for the year then ended in accordance with the accounting policies described in Note 1 to the financial statements.

**Basis for Opinion**

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibility for the Audit of the Financial Report* section of our report. We are independent of the company in accordance with the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Emphasis of Matter - Basis of Accounting**

Without modifying our opinion, we draw attention to Note 1 to the financial report, which describes the basis of accounting. The financial report has been prepared for the purpose of fulfilling the trustees' financial reporting responsibilities under the trust deed. As a result, the financial report may not be suitable for another purpose.

**Trustee' Responsibility for the Financial Report**

The directors of the trustee company are responsible for the preparation of the financial report and have determined that the basis of preparation described in Note 1 to the financial report is appropriate to meet the requirements of the trust deed and is appropriate to meet the needs of the members. The directors' responsibility also includes such internal control as the directors determine is necessary to enable the preparation of a financial report that is free from material misstatement, whether due to fraud or error.

**Auditor's Responsibility**

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of the users taken on the basis of the financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Further information about our responsibilities can be found at <http://www.auasb.gov.au/Home.aspx>

We communicate with the trustees regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



**JTP ASSURANCE**  
Chartered Accountants



**GUS SVENSON**  
Partner

Signed at Melbourne this 20<sup>th</sup> day of November 2020