

milestone report

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Capacity Building for Western Australian sheep industry value chain

Final Report

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Scholarship program overview

Researchers and supervisors from Western Australian Universities were invited to apply for scholarships from the WA Sheep Industry Scholarship Program. This program was part of a larger sheep industry project funded by the WA Government via Royalties for Regions, the Sheep Industry Business Innovation (SIBI) project with co-funding from bodies such as MLA Donor Company. The program was designed to support and encourage individuals who wish to pursue further study by addressing key industry questions relevant to the sheep industry supply chain in Western Australia. Overall the program is about building capacity and giving the student an appreciation and awareness of the industry and an opportunity to build specialty expertise.

The program offered financial support for eligible research through 2017 – 2021 as follows:

Up to \$3000 each toward a minimum of six Vocational in 2017-18

Up to \$5,000 each towards a minimum of six Honours in 2017-2018

Targeting a minimum of two Masters* by research in 2017-2018

Targeting a minimum of two PhDs* in 2017 - 2018

*Fortnightly payments at the rate of \$38,000 per annum for two years for Masters and three years for PhD with the possibility of extension, plus negotiable levels of operating.

The process involved an open call for applications for SIBI research scholarships from July 2017 to July 2021, to be used as stipend and negotiated operating costs. Beyond this period it is expected the Department of Primary Industries and Regional Development (DPIRD) will continue to contribute in-kind through technical supervision and monitoring progress of the research. DPIRD also offered support via field sites (including the Katanning Research Facility), office space, equipment, conference attendance, travel, computers, software, industry networks and general support.

Through the department's sheep industry engagement activities researchers also had the opportunity to network and share ideas with industry peers and experts.

Prospective researchers and supervisors were encouraged to work together on presenting their ideas using the application form provided via the SIBI website. Proposals were assessed by a SIBI panel and awarded based on their merit and ability to address the SIBI project priorities.

Generic funding agreements were established between DPIRD and the participating WA universities including UWA, Curtin, Murdoch and Edith Cowan for the Honours and Masters program whilst any successful PhDs awards had individual agreements linked to their candidature milestones.

The project recognised the value in supporting individuals to help solve industry relevant issues across the sheep supply chain through academic research. In addition the intention was to expose and excite students to choose a career in the agrifood supply chain.

Demonstrating the value of postgraduate trained personnel to entities within the sheep industry, with the view to their long term employment.

While the SIBI project finished 30 June 2018, the SIBI Scholarships program continued until 30 December 2020 when the last funds were allocated. The program has now ended as funds are exhausted. The SIBI Scholarships program offered funding for students to carry out a research project as a vocational or internship, honors, masters or PhD. Key funding sources also included Australian Wool Education Trust and the Australian Government Research Training Program.

Objective of the program

The SIBI Scholarships program was designed to support and encourage individuals who wish to pursue further study by addressing key industry questions relevant to the sheep industry supply chain in WA. Overall the program was about building capacity and giving the student an appreciation and awareness of the industry. An immediate industry-ready outcome from any research study is not essential. To establish an effective application process underpinned by signed off University – DPIRD Agreements (legal) where approved student payments proceed efficiently and where new sheep industry research outcomes are achieved

What are the program priorities?

Applications had to be aligned to at least one of the SIBI outcomes and were assessed on their own merit.

- To support the establishment of dedicated export supply chains that offer the level and consistency of returns needed to restore confidence in the industry.
- To increase the on-farm productivity of market-preferred products, through better genetic selection and higher stocking and reproductive rates.
- To improve business performance by improving farm business and production skills.
- To increase access to investment, both from within and outside of the industry, as a result of increased confidence among investors and more attractive business models.
- To establish the human and physical resources needed to research, develop and demonstrate the elements required to achieve success in the industry and the means of sustaining those resources into the future. Table of Contents

The following documents are available from the SIBI scholarships website link as : [flier and application form](#)

- Guidelines in the form of a promotional flier and an application form
- SIBI Scholarships Showcase 25 June 2019
- SIBI Scholarships Summary Booklet

SIBI team have developed a media release in conjunction with MLA media liaison (Appendix) and have begun promotional activities throughout the WA university networks, via the post graduate research offices and academic staff at specific schools and faculties. Further media is planned for mid-2021.

A list of the students and their respective topics and training program is listed in Table 1.

Table 1. Current status on applications

Student	Theme	Research type	Project	Status	Amount	Payment Status
Pieter Boer	Ag Engineering	Vocational	Fly Strike Detection	Completed	\$5 000	Paid
Christopher Telfser	Ag Engineering	Vocational	Fly Strike Detection	Completed	\$ 5000	Paid
Xin Hong	Ag Engineering	Vocational	Dry pasture estimation	Completed	\$ 5000	Paid
Ren Bootha	Hons	Ag Tech solutions	Evaluating the effectiveness and accuracy of current innovative sensor technologies to estimate crop biomass in order to improve the management of crop grazing.	Completed	\$ 5000	Paid
Victoria Rawlings	Hons	Production	The role of dam water as a source of veterinary and zoonotic infections of importance to the WA sheep meat industry	Completed	\$ 9900	Paid
Travis Allington	PhD	Production	Increasing lamb supply through increasing survival of multiple born lambs in highly fecund flocks	Completed	\$ 60 000	Paid
Elise Bowen	PhD	Production	Improving reproductive efficiency by reducing mortality and reproductive wastage in young ewes	Completed	\$ 59 400	Paid
Elise Bowen	PhD	Production	REFUND DUE TO STUDENT ABANDONING PROJECT		\$ 40 978	Returned
Michael Young	Internship	Economic modelling	Improve analysis of a supply chain to produce heavy out of season merino lamb	Completed	\$ 5 200	Paid
Thomas Clune	PhD	Production	The role of infectious disease in reproductive wastage of young merino and maternal ewes	Completed	\$ 41 500	Paid
Emma Russell	PhD	Adoption/extension	Understanding WA sheep producers' attitudes towards industry change	Ongoing	\$76 000	Paid
Tim Edwards	Hons	Ag tech solutions	Dale Miles project multi-auto draft software	Completed	\$ 8 800	Paid
Sanabel Jwade	Internship	Ag tech solutions	Dale Miles project multi-auto draft software	Completed	\$ 5 800	Paid
Sanabel Jwade	Hons	Ag tech solutions	Dale Miles project multi-auto draft software	Completed	\$ 5 700	Paid
Michael Young	Honours	Economic Modelling	An Economic Analysis of Strategic Options for Broad Acre Farm Businesses	Completed	\$ 10 000	Paid

Alison Walsh	Honours	Economic Modelling	Viability of carbon mitigation for native shrub as sheep feed	Completed	\$ 8 000	Paid
Rebecca May	Honours	Production	Sire group differences in feed efficiency and physical activity of merino wethers in a feedlot environment	Completed	\$ 10 000	Paid
Elliott Reed	Honours	Production	Management and environmental factors that affect phytoestrogen synthesis in subterranean clover which decrease sheep production	Completed	\$ 7 100	Paid
Lucas Smith	MSc coursework	Production	Fit for purpose biochar to improve rumen fermentation efficiency and reduce methane production	Completed	\$ 10 000	Paid
Michael Young	PhD	Production	An Economic Analysis of Sheep Stocking Rate in Uncertain Climate Conditions for Broad Acre Farm Businesses	Ongoing	\$ 140 000	Paid
Hayley Hardwick	Vocational	Production	The effect of mid-pregnancy shearing on lamb behaviour	Completed	\$ 3,000	Paid
Brodie Metcalfe	Vocational	Production	The impact of mid-pregnancy shearing in Merino ewes on lamb survival	Completed	\$ 9,701	Paid
Rebecca May	PhD	Production	Practical application of biomarkers to predict whole-body energy in Merino sheep	Ongoing	\$ 18 000	Paid 2/3yrs
Hatem Al-Khazraji	Phd	Production	Remote sensing technologies for prediction of feeding behaviour and temperament/activity in sheep	Postponed	\$ 15 000	Unpaid
Katherine Mata	PhD	Production	Establishing a Standard protocol for computed tomography for carcass composition measurement in the Australian Red Meat Industry	Ongoing	\$ 40 000	Pending
				Total committed	\$ 537 123	

Appendices:

Media Release

7 August 2017

Scholarships to boost sheep research

Researchers undertaking tertiary studies that will benefit Western Australia's sheep industry can now apply for scholarships through the Department of Primary Industries and Regional Development.

Department Sheep Industry Leader Bruce Mullan said the scholarship program would support and encourage researchers in addressing areas that would make a difference for the sheep industry and build capability to help the industry grow in value.

"This program aims to build students' capabilities to contribute to the sheep industry and value chain, including building knowledge in business and agricultural and animal science," Dr Mullan said.

The scholarship program is funded by the department and MLA Donor Company (MDC), with support from the Australian Wool Education Trust.

It offers financial support for eligible researchers and research supervisors from Western Australian universities, including Honours, Masters and PhD students.

Dr Mullan said the department was working closely with industry through the Sheep Industry Business Innovation project, to drive business innovation and support the State's billion dollar sheep industry to capitalise on growing markets for sheep products.

"Provided the research topics address identified priority areas, this scholarship support is available to all university disciplines and not limited to the agricultural sciences," he said.

"Key areas include increased production through higher lambing rates, adoption of new technology, exploring opportunities to add value along the supply chain and development of new business models."

MLA Donor Company CEO Christine Pitt said by supporting this scholarship program, the company was helping to provide young people with a career pathway in the sheep industry.

"Recipients will develop a design-led supply chain approach that will enable the industry to better capitalise on market opportunities, encourage producers to adopt new technologies and business models and in the long-term, attract investment," Dr Pitt said.

The department can also provide in-kind support through field sites, office space, equipment and general support.

Applications are now open and close March 2018. Candidates are invited to apply via the department's [website](#).

Application enquiries can be directed to department development officer Justin Hardy on +61 (0)8 9892 8408 or justin.hardy@agric.wa.gov.au.

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