MLP
Merino Lifetime Productivity Project

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Merino Lifetime Productivity Project Newsletter No.4

MLP quick facts

- The Australian Wool Innovation (AWI) funded MLP project is a $7m (plus $5m from partners), 10-year partnership between AWI, the Australian Merino Sire Evaluation Association (AMSEA), nominating stud Merino breeders and site hosts.
- The project, which commenced in 2015, aims to increase the understanding of the genetics, environment and economic interactions for a diverse range of Merino types producing wool, lambs and meat during their lifetime.
- The MLP project runs at five sites where sire evaluation trials operate for the first two years and then continue tracking performance of ewe progeny as they proceed through four to five joinings and annual shearings.
- A full suite of assessments will be undertaken during the MLP project including visual trait scoring, classer gradings, the objective assessment of a range of key traits and index evaluations.
- A unique and extensive dataset will result and be used to enhance existing Merino breeding and selection strategies, for both ram sellers and buyers, to deliver greater lifetime productivity and woolgrower returns.

Tracking ewes across their lifetime

MLP results are starting to tell a story about individual ewes and highlight the diversity within the project.

The 5,500 ewes of the MLP project have approximately 700,000 of the total 1.6m records collected. These include wool, carcase, reproduction and animal health records across their lifetime and from the five project sites. This extensive dataset will be analysed to enhance breeding and selection for lifetime productivity at young ages.

The oldest ewes in the project are the 2015 drop located at the Victorian Balmoral site. The table below provides a snapshot to-date of raw results from four ewes who have results collected up to their fourth wool assessment plus two lambing cycles.

These ewes show some of the variation that exists in the project and demonstrates how the data will be used to answer many of the questions that the MLP project set out to address. For example, are you better off with a flock of Ewe A, Ewe B or Ewe C types? Do both types have a role in different environments and production systems?

Robust analysis of results will combine the lifetime records of all 5,500 ewes post-2023. In the interim results are being reported for each site's year drop.

Table 1: Four MLP ewes from Balmoral's 2015 drop – Shearing and classing results presented alongside their maiden 2017 lambing results and 3 year old 2018 lambing results

		EWE A		EWE B		EWE C		EWE D			
NO. LAMBS WEANED	MAIDEN (2017) 2018	SINGLE SINGLE		SINGLE TWIN		TWIN TWIN		EMPTY EMPTY		FLOCK AVERAGE	
CLASSER'S GRADE	2017 2019	TOP TOP		TOP TOP		TOP FLOCK		FLOCK CULL		20% TOPS 22% TOPS	
2019 RESULTS FOURTH SHEARING	CFW	4.9		4.5		3.0		3.4		3.8	
	FD / SS	15.8	36	16.1	28	16.2	38	15.9	37	16.9	38.4
	FAT / EMD	3.0	21	2.5	22	3.5	23	5.0	22	2.9	20.5
	BRWR	4		3		2		3		2.8	

Classer's Grade: Top: Top 25%; Flock: Middle 50%; Cull: Bottom 25%
CFW: Clean Fleece Weight (kg)
FD: Fibre diameter (µm)
SS: Staple strength (NKtex)
FAT: Fat depth (mm) at the 'C' site
EMD: Eye muscle depth (mm) at the 'C' site
BRWR: Breech wrinkle (score 1-5)

Around the sites

Balmoral

Exceptionally well timed rainfall, matching the average, has allowed for abundant spring pasture growth. As a result ewes and lambs are in very good condition. F2 lambs were weaned late in November with 97% lambs weaned to ewes joined and ewes averaging 62kg with a condition score of 3.4. Classing, sampling and shearing is scheduled for early 2020.

Balmoral 2016 drop ewes, November 2019.

Balmoral F2 lambs at weaning, November 2019.

Pingelly

Pingelly has had a reasonable season with weaning taking place in early October. The 2017 drop maiden ewes weaned 94% lambs to ewes joined and the 2016 drop 114%. The 2017 drop averaged 64.9kg and the 2016 drop averaged 73.2kg, with both drops averaging a condition score of 3.0. Classing and sampling took place late in November with shearing in early December. Ewes will next be joined in February 2020.

Pingelly 2017 drop ewes in for classing and sampling, November 2019.

Pingelly's team, Cara Allan, Jarryd Krog, Amy Lockwood, Bronwyn Clarke (Site Manager) and Joanna Gruszecka, November 2019.

MerinoLink

The site remains in drought conditions. F2 lambs were weaned in August with 84% of lambs weaned to ewes joined across both drops and ewes weighing approximately 71kg. Ewes will be joined late in December. Lexi Cesnik of Moses and Son assumed the role of site and data manager in July. Sally Martin is especially acknowledged and thanked for her enthusiastic commitment in setting up the MerinoLink MLP site at Temora, NSW.

MerinoLink 2017 drop ewes, October 2019.

MerinoLink's Cassie Wilson, Ben Patrick (Classer), Michael Corkhill and Von Hartmeier during classing and sampling, October 2019

Macquarie

The site remains in severe drought conditions. Both drops of ewes were sampled, classed and shorn in October. The pre-joining assessment saw the 2017 drop ewes averaging 53.9kg and a condition score of 2.6 and the 2018 drop ewes averaging 45.3kg with a condition score of 2.7. Ewes were joined late in November with rams to be removed January 6.

Kathryn Egerton-Warburton (Site Manager), Chris Bowman (Classer) and Rachel Hyde at Macquarie's classing, October 2019

Macquarie 2018 drop ewes in the shed for classing, October 2019

New England

Extreme drought conditions remain at the site. The 2017 drop had their first lambs during September. Pre-lambing the ewes averaged 53kg with an average condition score of 3.2 in the singles and 59.6kg and 3.3 in the twins. Marking took place mid-October where there were 87% lambs were tagged to ewes joined. Ewes have slipped in condition and will be weaned early to get them back on track. The 2018 drop ewes are being confinement fed and averaged 36.6kg with a condition score of 3.1 at 14 months of age.

New England 2017 drop ewes and their F2 lambs, October 2019.

New England 2018 drop ewes, October 2019.

MLP 2019 field days update

The 2019 MLP field days are now complete with more than 3,600 ewes showcased, 89 sire groups penned and over 500 attendees.

New England NSW

The New England field day on June 20 was held in conjunction with MerinoLink's annual conference. A huge crowd of approximately 200 visited the CSIRO site at Uralla, NSW to view both the 2017 and 2018 drops of ewes.

Macquarie NSW

NSW DPI Trangie hosted the field day on July 10. Ewes from the 2018 drop were displayed for the first time in their sire groups and further subgrouped into dam type. Over 100 attendees were presented with the site results.

Pingelly WA

The Pingelly site field day was held at the UWA Farm 'Ridgefield' on October 25 and displayed the ewes from both the 2016 and 2017 drops.

The day attracted over 60 people, despite harvest having started, with attendees noting that they found the field day to be enormously relevant and valuable.

At Pingelly's October MLP Field Day:
Anne Ramsay (Project Manager), Brett Jones (Pingelly Site Chairman), Geoff Lindon (AWI) and Bronwyn Clarke (Pingelly Site Manager).
Image credit: Bob Garnant, Countryman.

MLP Functionality Classing

The MLP F1 ewes undergo an annual teeth and udder assessment after weaning to track their functionality and impact over time.

Teeth soundness plays a critical role in animal health and wellbeing as it directly relates to feed consumption and effective mastication. At around 4 years of age ewes usually have all 8 permanent incisors and as the aging process starts teeth start to spread, wear down and are lost or broken.

Standard industry scores to assess teeth and udders weren't available when the MLP project commenced in 2015. However, several teeth scoring systems used in other research projects were used to guide the development of a quick and simple system of assessing teeth function. The scores include a count of permanent incisors, a score for length of the teeth, and another score for spacing/alignment.

The udder scores provide a count of functional teats and identify ewes as being a standard teat shape, starting to balloon or ballooned teats. Mastitis or udder damage is also recorded.

The annual udder assessments explore the diversity of udder shape and sizes along with the functionality of teats, to estimate the impact on a ewe's rearing ability and her own production. Welfare culling decisions are also made at this time for ewes that have suffered severe mastitis, inverted or non-functional teats.

The oldest ewes in the project are the Balmoral 2015 drop ewes who weaned their third drop of progeny in November. These ewes underwent functionality classing following weaning and the results suggest that the ewes' mouths and udders are tracking well, with only a small number of ewes observed with broken mouths or udder issues. Additionally, 23 of the 500+ ewes had more than 2 functional teats and it wasn't uncommon for ewes to have 2 functional teats but only 1 side in use.

The MLP project will undertake a total of 45 functional assessments before 2023. The results will provide the industry with an understanding of the impact that teeth and udder soundness has on lifetime productivity.

A Balmoral 2015 drop ewe during functionality scoring, December 2017 (2.5 years of age), four functional teats and extremely bare crutch cover.

The same Balmoral ewe again being scored for functionality, November 2019 (4.5 years of age).

2020 Field Days

The MLP Project will be featured throughout 2020 at numerous events including field days at some MLP sites. Merino enthusiasts are encouraged to attend to receive the latest project results and inspect the ewes.

Macquarie 2020 MLP Field Day
Date: Friday 4 March, 2020
Contact: Kathryn Egerton-Warburton 0429 943 708

Balmoral 2020 Sire Evaluation Field Day
MLP Results Update (NB. MLP ewes not on display)
Date: Friday 13 March, 2020
Contact: Liz Mecham 0407 015 059

Visit wool.com/MLP for further field day details.

Further information

Download MLP Reports from www.merinosuperiorsires.com.au/mlp-project-reports
Subscribe to the MLP quarterly newsletter at https://go.wool.com/mlp-subscription
Contact MLP Project Manager Anne Ramsay on 0400 368 448

The Merino Lifetime Productivity Project is being undertaken in partnership between the Australian Merino Sire Evaluation Association Incorporated (AMSEA) and Australian Wool Innovation (AWI). AMSEA and AWI would like to acknowledge those entities who also contribute funding, namely Woolgrowers through sire evaluation entry fees, site committee in-kind contributions, and sponsors of AMSEA. A special acknowledgement is also made to the Australian Government who supports research, development and marketing of Australian wool.

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