

MERINO LIFETIME PRODUCTIVITY PROJECT UPDATE



FAST FACTS

- The AWI-funded MLP project is a \$12 million (\$7 million from AWI plus \$5 million from partners), 10-year partnership between AWI, the Australian Merino Sire Evaluation Association (AMSEA), site committees, nominating stud Merino breeders and site hosts.
- 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.

Balmoral – ‘Tuloona’, Harrow, Vic
 Hosts: Balmoral Breeders and Tuloona Pastoral

Pingelly – UWA Farm Ridgefield, Pingelly WA
 Hosts: Murdoch University, UWA and Federation of Performance Sheep Breeders (WA Branch)

MerinoLink – ‘The Vale’, Temora, NSW
 Hosts: MerinoLink Inc, Moses and Son, Bluechip Livestock

Macquarie – Trangie Agricultural Research Centre, Trangie, NSW
 Hosts: NSW DPI and Macquarie Sire Evaluation Association

New England – ‘Chiswick’, Uralla, NSW
 Hosts: CSIRO and New England Merino Sire Evaluation Association

- A full suite of assessments will be undertaken. A unique and extensive dataset will result and be used to enhance existing Merino breeding and selection strategies, to deliver greater lifetime productivity and woolgrower returns.

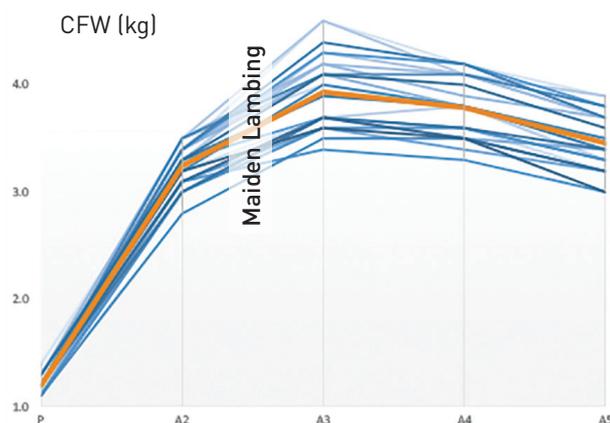
REPORT UPDATES ACROSS THE SITES

- The latest MLP reports are now available for the Balmoral, Pingelly, MerinoLink and Macquarie sites, including the latest wool, carcase and reproduction information.
- Reports include data collected out to the fifth adult year at Balmoral, the fourth year at both Pingelly and MerinoLink, and the third at Macquarie.
- A New England update is scheduled for mid-year (following shearing).

BALMORAL

Balmoral’s updated report for the 2015 drop ewes includes five wool assessments and three reproduction cycles, plus annual carcase measurements. The 2016 drop ewe results are just one year behind.

Table 1, below, is a subset of Adjusted Sire Means from the Balmoral Report giving the 2015 drop averages for Clean Fleece Weight (CFW), Fibre Diameter (FD) and Body Weight (WT) across the age stages. Adjusted Sire Means account for whether the ewe was born and raised as a single or multiple, the age of their dam, the number of lambs that the ewe has delivered and raised, plus management groups.



Figures 1 and 2: Balmoral 2015 drop F1 ewe adjusted sire mean data graphed by sire groups at each age stage for Clean Fleece Weight (top) and Body Weight (bottom). The drop average, shown in orange and reported in Table 1, tracks a general data trend

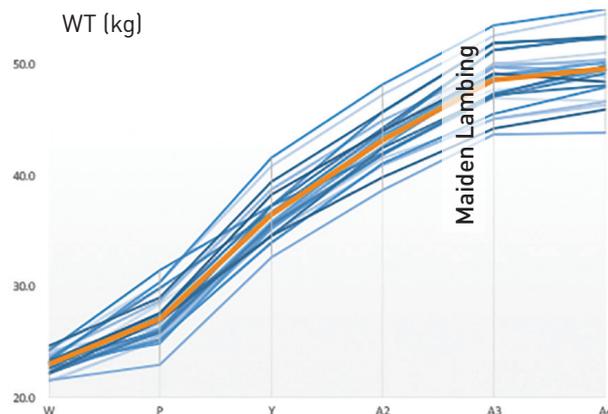


Table 1: The 2015 Drop ewe averages from Balmoral’s updated report

Balmoral 2015 Drop F1 Ewes	CFW (kg)				
Adjusted Sire Means	P	A2	A3	A4	A5
Drop Average	1.2	3.3	3.9	3.8	3.5

FD (µm)				
P	A2	A3	A4	A5
15.3	16.4	17.8	16.9	16.6

WT (kg)					
W	P	Y	A2	A3	A4
23.0	27.1	36.5	43.2	48.7	49.7

Wool growth in months:		Post Weaning	
Adult2	12	Adult4	12
Adult3	11	Adult5	12

Age Stages:		P	Post Weaning
A2	Adult (1.5 -2.5 years)	A4	Adult (3.5 -4.5 years)
A3	Adult (2.5 -3.5 years)	A5	Adult (4.5 -5.5 years)

The CFW and WT from the Balmoral 2015 drop show overall data trends starting to emerge, revealing that performance is changing over their lifetime. Each blue line on the graph is the average for a sire group and the orange line displays the drop average (outlined in Table 1). Figure 1 shows this drop of ewes may be peaking for clean fleece weight in the third adult year, and in Figure 2 an annual increase in body weight across the drop can be observed. There are also early indications that some sire results are changing, observable in changed rankings over the age stages. This data is from just 550 of the 5700 F1 ewes in the project and it will be interesting to observe if similar data trajectories occur across the other MLP ewe drops and sites.

The project sets out to explore fleece and growth trajectories and to question whether current selection systems are able to identify animals at a young age that are productive through life. This question, along with many others, is featured in the *MLP Project Analysis and Reporting Plan* which has recently been made available for download from www.wool.com/mlp. Feedback is welcome, contact AWI's Program Manager for Genetics, Geoff Lindon, at geoff.lindon@wool.com.

PINGELLY AND MERINOLINK

The Pingelly and MerinoLink sites have updated their reports to include the 2019 data. For the 2016 drop, this includes four years of wool and carcase assessments, plus the scanning and weaning data from two reproduction cycles. The 2017 drops have three wool assessments and their maiden reproduction results reported, plus carcase data.

The 2020 pregnancy scanning results from these sites are now available in Table 2. Pingelly joined in February under unusually dry conditions, and ewes were scanned at the end of April. MerinoLink joined in drought conditions prior to Christmas, with ewes scanned and moved out of containment feeding in mid-March.

MACQUARIE

Macquarie's updated report was released at their well-attended MLP Field Day held on 4 March. The field day showcased both the 2017 and 2018 drops alongside their latest results. The 2017 drop reported three wool assessments, two reproduction cycles and corresponding carcase assessments. The 2018 drop had two wool assessments and corresponding carcase assessments, plus a maiden joining. The report included pregnancy scanning results from 2020. The Macquarie site has experienced a wet start to 2020 (333ml to the end of April 2020 against an annual average of 496ml), ewes lambing onto some available paddock feed.

NEW ENGLAND

A change in seasonal conditions has also spread to the New England MLP site. Early 2020 rainfall was significantly higher than for the previous 18-month period (452ml to the end of April 2020 against an annual average of 859ml) and the ewes have moved onto green feed. These conditions are timely in the lead-up to joining. A New England report update is scheduled following shearing. **B**

MORE INFORMATION

www.wool.com/mlp
www.merinosuperiorsires.com.au/mlp-reports

Table 2. Pingelly (April) and MerinoLink (March) 2020 pregnancy status, weights & condition scores

PINGELLY				
Drop	Pregnancy Status	Ewe Number	%	Average Condition Score
2016	Dry	13	4%	3.0
	Single	152	42%	3.2
	Multiple	192	54%	3.2
	Drop Average	-	-	3.2
2017	Dry	33	6%	3.0
	Single	360	66%	3.0
	Multiple	150	28%	3.0
	Drop Average	-	-	3.0

MERINOLINK				
Drop	Pregnancy Status	Ewe Number	%	Average Condition Score
2016	Dry	18	6%	2.7
	Single	137	42%	2.7
	Multiple	167	52%	2.8
	Drop Average	-	-	2.8
2017	Dry	54	14%	2.7
	Single	183	46%	2.8
	Multiple	161	40%	2.9
	Drop Average	-	-	2.8



Macquarie's 2018 Drop F1 ewes on display and field day crowd, March 2020.



FUTURE MLP FIELD DAYS

New England 2020 MLP Field Day.

An online field day will be hosted in August 2020 in light of the current isolation restrictions. This event will be open to all of industry.

The **MerinoLink** and **Pingelly** sites currently have field days tentatively scheduled for later in the year.

Updates will be announced on www.wool.com/MLP and via the AMSEA and MLP email [subscribe at www.bit.ly/AMSEA_Subscription].

MERGING MLP DATA INTO MERINOSELECT

Collected MLP project data has been submitted for inclusion in the MERINOSELECT analyses and is now available on the Sheep Genetics website.

The process involved the merging of all MLP repeat adult data for wool, body weight, worm egg count, visual traits and reproduction into the MERINOSELECT analyses, as well as the addition of the genotypes of the 5,700 daughters (the MLP ewes). This is in addition to the results collected and submitted previously as part of the sire evaluation phase.

MLP data will now be submitted as it is collected by the project in line with the regular MERINOSELECT analyses.

The inclusion of the MLP data also coincides with a methodology update for the calculation of the Fleece Weight traits.

Research Breeding Values of the three component traits for Number of Lambs Weaned, Conception, Litter Size and Ewe Rearing Ability will be introduced in late June.

MORE INFORMATION
www.wool.com/MLP-SG