MLP
Merino Lifetime Productivity Project

Merino Lifetime Productivity Project Newsletter No.14

Field Day Wrap Up

In October this year the MerinoLink and Pingelly sites hosted their final field days with the MLP sheep on display for the last time.

The final MerinoLink field day was held at Temora on October 14 under extremely wet conditions. With widespread flooding leading to road closures, and with many farms juggling delays to shearing, the field day attracted a crowd of 50 via 4WD access.

The MerinoLink ewes, the daughters of 25 industry sires, presented well at the field day despite the extremely wet seasonal conditions. AMSEA's Ben Swain introduced the sire groups and ran through their latest results. While most sire groups were performing as predicted, the performance of several traits at times wasn't as expected.

Meanwhile over at Pingelly, the October 21 field day attracted a crowd of 80. The day involved a lineup of five formal presentations which were followed by inspection of the ewes, the daughters of the 30 industry sires. The presentations were all based on the analysis of Pingelly data alone, although it is intended that the analysis will be extended across all five MLP sites once the complete dataset is available in 2024.

Presenting on the day was MLP Site Manager Dr Bronwyn Clarke whose talk included the comparison of early Flock Breeding Values to lifetime production.

Dr Bronwyn Clarke presenting at the Pingelly field day, October 2022

MLP quick facts

- The Australian Wool Innovation (AWI) funded MLP project is a $8M (plus $5M from partners), 10-year partnership between AWI, the Australian Merino Sire Evaluation Association (AMSEA), 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, VIC** **Host:** Tuloona Pastoral
  Committee: Balmoral Breeders Association
  Pingelly, WA **Host:** Murdoch University / UWA
  Committee:
  Federation of Performance Sheep Breeders (WA Branch)
  MerinoLink, Temora NSW **Host:** Moses & Son
  Committee: MerinoLink Limited
  Macquarie, Trangie NSW **Host:** NSW DPI
  Committee: Macquarie Sire Evaluation Association
  New England, NSW **Host:** CSIRO
  Committee: New England Merino Sire Evaluation Association
- 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.

Bronwyn's message was that based on one drop at Pingelly, the sires' daughters' early flock breeding values for fleece and growth were reasonable predictors of the sires' daughters' lifetime performance, while lifetime reproduction wasn't well predicted by one or two years of assessment.

Pingelly field day attendees also heard from the AGBU analysis team. A summary of these presentations can be found in the December edition of AWI's Beyond the Bale (Issue 93).

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Thanking the MerinoLink and Pingelly Sites

The project would like to sincerely thank Marty Moses and the team from Moses and Son for hosting the MerinoLink site, particularly under some very tough climatic conditions.

As key partners, we also thank Rich Keniry and the MerinoLink team for their facilitation and guidance of the MerinoLink site, and we recognise the substantial support that the site committee contributed over the past 7 years.

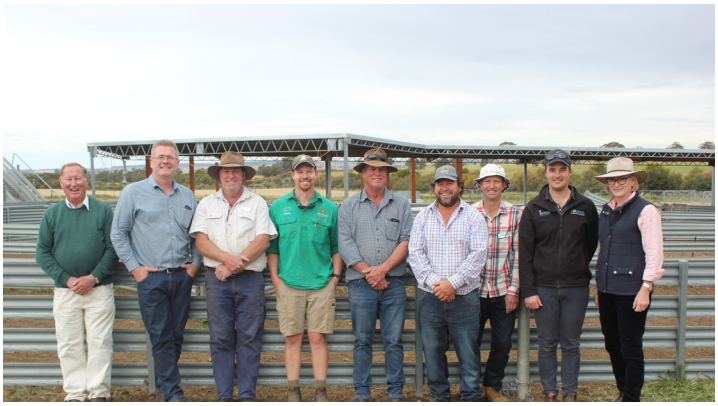
We also recognise the valued work contributed by Lexi Cesnik as MerinoLink site manager, and Sally Martin who was involved in the establishment of the site.

Murdoch University, in conjunction with the University of Western Australia, are thanked for creating a prodigious Western Australian site and we acknowledge their significant contribution as hosts. We also recognise the support of Brett Jones and the site committee who contributed countless hours of their own time to guide the project.

A thanks to Dr Bronwyn Clarke who capably led the site and to the Murdoch team who provided highly skilled technical support.

Across the two sites we recognise the classers and thank them for their involvement and preparedness to have their results publicly scrutinised annually. Finally, we acknowledge the sire entrants who nominated sires, sire owners who were prepared to be involved, and we thank you for making this important project possible.

MerinoLink Site Committee, L to R, Andrew Bouffler, Adele Smith, Lexi Cesnik, Mark Mortimer, Greg Sheather, Rich Keniry, Marty Moses, Jim Meckiff, John Sutherland and Michael Field



Pingelly Site Committee, L to R, Bill Sandilands, Prof Andrew Thompson, Tim Watts, Jarryd Krog, Brett Jones, Steve Bolt, Ashley Hobbs, Mark Allington and Dr Bronwyn Clarke.

Impact of Yield

Sampling Site on Clean Fleece Weight

In contrast to the current extreme wet weather conditions, from 2017 to 2020 the NSW based MLP sites operated through severe drought conditions which saw yields and wool quality tumble. While some fleeces appeared better able to retain quality and keep the dust out, others saw dust penetrate right through to the skin.

Several breeders questioned whether a mid-side sample reliably reflected whole fleece yield under dusty conditions, particularly for ewes with longer staples and open backs. They also wondered whether a pin-bone sample would allow industry to determine if under certain conditions this sampling location, which is close to the "dust prone" topline, is better able to predict yield differences between individual sheep and sire types?

In 2019 the Yield Project was established involving a partnership between the NSW SMBA Trust, the Macquarie and MerinoLink sites along with BCS Agribusiness which saw additional wool samples taken to help answer these questions. Along with the standard mid side sample, the Yield Project saw the collection of two additional samples at the pin (hip) and across the fleece via a core sample.

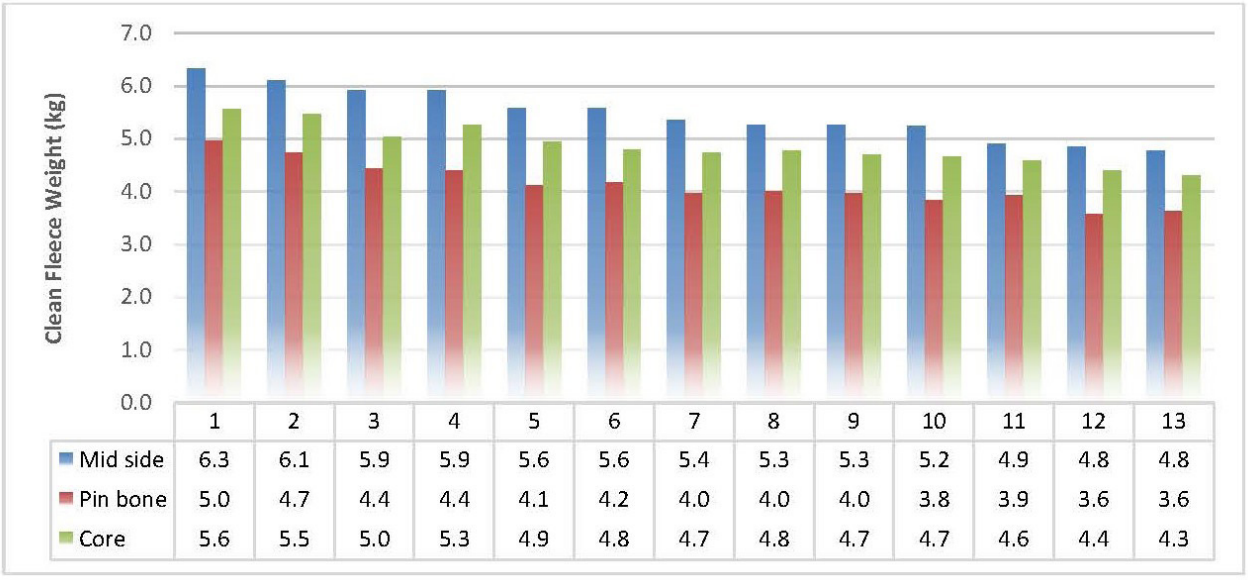
While an extra pin sample was easily accommodated, the task of individual fleece core sampling was quite an undertaking and performed only at the MerinoLink site where their 12 months of wool growth made the task achievable.

Whole fleece core process in use at MerinoLink

All samples were tested through AWTA with the results showing that variation exists between yield and clean fleece weight (CFW) measured at the different sampling sites.

One of the first jobs for the AGBU analysis team early this year was to statistically examine the results. The great news is that the comparison of both raw data, and data that had been adjusted (accounted for management groups and other effects), showed that yields taken from the mid side, pin or core can be used to compare ewes and their sires for clean fleece weight (CFW) without any significant re-ranking.

This can be seen in Figure 1 where the MerinoLink 2016 drop CFW sire rankings are consistent when calculated using yields from the mid, pin and core sample sites, with correlations ranging from 0.96 to 0.98. At the individual ewe level, the correlation between yield at the three collection sites using adjusted data was high to very high at 0.79 to 0.92.



	1	2	3	4	5	6	7	8	9	10	11	12	13
Mid side	6.3	6.1	5.9	5.9	5.6	5.6	5.4	5.3	5.3	5.2	4.9	4.8	4.8
Pin bone	5.0	4.7	4.4	4.4	4.1	4.2	4.0	4.0	4.0	3.8	3.9	3.6	3.6
Core	5.6	5.5	5.0	5.3	4.9	4.8	4.7	4.8	4.7	4.7	4.6	4.4	4.3

Figure 1: MerinoLink 2016 Drop Average Sire Clean Fleece Weights Estimated using Yield from Mid, Pin and Core Sample Sites.

Staple length (SL) from the three drops was used to explore whether ewes with longer SL and lower CFW were more prone to higher levels of dust penetration resulting in lower overall yield than the mid side sample suggests. The AGBU analysis showed that both the core and mid side sample yields tended to be the same or slightly higher with longer staple lengths at low, moderate, and high CFWs. However, for two MLP drops, when the pin sample was used, the yield reduced with longer staple lengths at low CFW. This trend in yield was only observed from pin samples and wasn't consistent with yield derived from whole core samples or mid side samples.

The wrap up from this work is that we can confidently use mid side yield to reliably predict differences in CFW between individual animals and sires. While the pin bone yield was observed to be lower in longer staples and lower CFW at some sites, the overall trend from whole fleece testing is that longer staples at any fleece weight result in slightly higher yield.

We would like to thank the NSW SMBA Trust for supporting this work, the MerinoLink and Macquarie sites for accommodating the extra sampling, and ABGU for undertaking the analysis.

Around the sites

Balmoral - SITE COMPLETE

Pingelly

The site has received 503mm of rain for 2022 with reasonable growing conditions. The final weaning took place in October, the 2016 drop ewes achieving 132% weaning rate and the 2017 drop 117%. The 2016 drop ewes averaged CS 2.8 and 74.7kg while the 2017 drop averaged CS 2.9 and 70kg.

Pingelly's final classing and sampling took place in November with final shearing in December. The 2017 drop ewes went through the GEPEP project in early October.

Pingelly ewes coming in for their final classing, November 2022

MerinoLink

Extremely wet conditions prevailed with 900mm recorded to November with minor foot abscess incidence. The final weaning saw 113% lambs weaned to ewes joined with ewes on target at CS 2.8.

Final classing, sampling and shearing took place in October with the ewes going through the UNE/DPI led Methane project in early November.

The final Wells Classer Trial activity involving the 2017 drop ewes took place the day prior to the field day.

MerinoLink ewes in Methane Chambers (Photo Credit: Charlotte Adam)

Macquarie

A total of 607mm had fallen to October with wet conditions resulting in sore feet and a rise in worms.

Weaning took place at the end of August with a weaning rate of 116% with both drops of ewes sitting at CS 3.6.

Classing and sampling took place in October with shearing delayed owing to wet weather and shearer availability. The ewes were finally shorn in early December and will be foot pared ahead of joining in late December.

Macquarie ewes, November 2022

FINAL Macquarie Field Day

SAVE-THE-DATE

March 29, 2023

New England

The site is saturated with 967mm falling to end of November which has impacted on ewe condition and resulted in lamb losses. The 2017 drop singles went into lambing in August at CS 2.7 and 58.5kg, and twins at CS 2.8 and 63.8kg. The 2018 drop had singles at CS 2.8 and 57.8kg and twins at CS 2.7 and 62.5kg.

In late October, the 2017 drop ewes marked 115% lambs and the 2018 drop 117%. Lambs will be weaned in the first week of December with the F2 progeny taking part in a CSIRO led Resilience project.

A very wet New England MLP site.

Further information

Download MLP Reports from www.merinosuperiorsires.com.au/mlp-project-reports

Feel free to contact the Site Managers, Project or AMSEA staff who are listed in reports for assistance with interpreting reported results.

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 hosts, 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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