

MERINO LIFETIME

PROJECT UPDATE

FAST FACTS

- The AWI-funded Merino Lifetime Productivity (MLP) project is a \$7 million (plus \$5 million from partners), 10-year partnership between AWI, the Australian Merino Sire Evaluation Association (AMSEA), nominating stud Merino breeders and site hosts.
- The project aims to better understand how current selection approaches relate to lifetime performance and to learn more about the genetics and economic interactions, across a diverse range of Merino types delivering high quality wool, lambs and meat through life.
- The MLP project runs at five sites where sire evaluation trials operate for the first two years and then continue to track the performance of ewe progeny as they proceed through four to five joinings and annual shearings.
- A full suite of independent visual classing and productivity traits will be assessed annually.



During July and August, the Merino Lifetime Productivity (MLP) sites at Macquarie (Trangie, NSW) and the New England (Armidale, NSW) hosted their first project field days.

On display at the Macquarie and New England field days were the F1 ewe progeny from 15 different sires joined at each site. These sires were selected to offer a range in performance (good and bad) and type to better understand the genetics of Merino ewe lifetime productivity.

In total 170 people attended these two days, which for many offered a welcome distraction from the prevailing drought conditions.

MACQUARIE SITE FIELD DAY

Dr Kathryn Egerton Warburton, the site manager of the NSW DPI-hosted Macquarie site, described the extremely tough seasonal conditions currently being faced by the site, along with the unique ewe base featured at Macquarie.

“The site had a particular interest in looking at the role that skin type might play in lifetime productivity. Foundation ewes were sourced from two bloodlines, Centre Plus and Towalba, to allow this to be explored further. These ewes were artificially inseminated for two years in order to generate the F1 ewe progeny that will be the focus of the project,” outlined Kathryn.

Using ‘linked’ sires across sites allows different foundation ewe bases to be taken into account between sites.

The Macquarie field day presentations also included an overview of the different

classing approaches undertaken as part of the project. Chris Bowman, who carried out the professional classing, described the process.

“Ewes are classed to the site’s breeding objective as a single mob five-ways. We are also trialling classing four ways within each sire group to the ram entrant’s own breeding objective rather than the MLP site’s breeding objective. It will be interesting to see how these two approaches line up,” Chris said.

“The classers are not provided with the sire details of each group, so it’s a completely blind and independent class.

“A couple of people were asking me why I had left some obvious culls in the pens. It’s important to remember that all ewes are retained in the project regardless of their classing allocation.”

NEW ENGLAND SITE FIELD DAY

At the CSIRO hosted-New England field day, MLP project manager Anne Ramsay described the background to retaining all the sheep in the project.

“One of the unique features of the MLP project that sets it apart from research undertaken in the past is that ewes only leave the project if there is a welfare need,” Anne said.

“Ewes deemed a cull either through classing, index selection or a combination of selection approaches, are retained and their performance followed through life. These ewes will enable us to answer questions around the best time to make culling decisions, and to possibly quantify the impact of traits like poor conformation and wool quality on productivity.”

A range of speakers at the New England field day outlined work that is adding value to the core project. These ‘add on’ projects are co-funded by AWI, and include work that is being undertaken by CSIRO’s Dr Brad Hine and Dr Jen Smith who will use the MLP F1 wethers to explore the impact of innate resilience on health, welfare and productivity.

“We have developed methods to assess resilience in sheep and now want to quantify the benefits of improving resilience in a commercial situation,” Brad said.



Professional classer **Chris Bowman** at the **Macquarie** field day. PHOTO: Emma Grabham

PRODUCTIVITY

“There are lots of factors that contribute to an animal’s resilience. Immune competence, or the capacity of an animal’s immune system to fight disease, is one such factor we will be assessing. We will also look at their temperament and ability to cope with stress, such as that induced by standard management practices.”

The F1 New England wethers will have annual assessments detailing their health records, coupled with annual visual assessment and measurement of wool, carcase and growth. After three years of data has been collected a full economic analysis will be undertaken to estimate the value of incorporating resilience into breeding and selection programs.

CSIRO was fortunate to attract further AWI funding to allow lambs to be tagged at birth and additional records to be captured. The New England’s site manager Dr Jen Smith described how the information collected by the project will help to explore the relationships between fitness, productivity and longevity.

“We are collecting comprehensive birth records and noting any incidence of compromises to fitness at birth, and throughout life such as injury, illness and mortality (when and why). We hope to share our early results at next year’s field day,” outlined Jen.

It takes a small army to plan and run the site field days, and AMSEA and AWI would like to thank and acknowledge the site committees, site hosts (NSW DPI and CSIRO) plus sponsors of the Macquarie and New England sites for their efforts above and beyond to make the field days come together.

Finally, the MLP project team is often asked what has been learnt since the project commenced in 2015. As much as we would like to make some early observations, the aim of the project is to evaluate ewes for life and to understand the drivers, economics and genetics of ewe lifetime productivity. For many traits that are lowly heritable, such as reproduction, it’s really important that we have repeat records to ensure the validity of results and be confident in any information we generate.

So hang tight, as soon as the results are robust we’ll be sure to share the information! In the meantime, the MLP and standard sire evaluation reports are available on www.wool.com/MLP or come to a site field day. 



The crowd at the **Macquarie** field day. PHOTO: Emma Grabham



AMSEA executive officer **Ben Swain** undertaking pen side sire introductions at the **New England** field day.



Some of the **New England** site committee who attended the field day: **Martin Oppenheimer, Jen Smith, Andrew Swan, Katrina Blomfield, Jock McLaren, Peta Bradley, Hugh Nivison, Duncan Lance and Kim Barnett.**

MORE INFORMATION
www.wool.com/MLP