



A large number of woolgrowers attended the 'Elders Balmoral' sire evaluation site field day in April to view the latest sire evaluation progeny, including the Merino Lifetime Productivity project's first drop of ewe progeny.

# MERINO LIFETIME PRODUCTIVITY

## PROJECT UNDER WAY

The first drop of ewe progeny in the **Merino Lifetime Productivity project** attracted strong interest from across the country at the 'Elders Balmoral' sire evaluation site field day in April.

This nine-year project launched last year is collecting data to evaluate lifetime Merino productivity including the relationships between reproduction, meat and wool production, how to best select for lifetime productivity and the role that genetics plays in generating lifetime returns.

**T**he demands being placed on the Merino ewe by Australian sheep and wool producers are changing. These days, many commercial Merino producers are looking for a ewe that can produce a high value fleece throughout life, be naturally resistant to parasites, produce more lambs than they once did and on top of this, turn off lambs with good carcase weight and yield at an early age.

For selection systems to be successful in delivering such an animal, it is important that the industry understands and can accommodate the lifetime relationships between all these production elements and commercial reality. The Merino Lifetime Productivity (MLP) project is set to increase the understanding of how sheep representing a range of Merino types and breeding objectives perform for this wide range of traits, over their lifetimes across different locations.

### MLP PROJECT OBJECTIVES

The MLP project is a long term partnership between AWI and the Australian Merino Sire Evaluation Association (AMSEA).

The project was launched last year and leverages off the current sire evaluation program funded by ram breeders and supporters. The extension of four standard sire evaluation sites to collect a wide range of lifetime productivity data will assist in answering many of the questions often raised within the Merino industry.

"Woolgrowers around Australia have been considering the impact of selection at a young age and particularly whether animals selected early retain performance throughout life," said AWI Program Manager - Genetics, Neil Judd. "Answers to this question are known for some traits, but not for others. It is also clear that this needs exploring across different

types of sheep, across different environments and across more production traits.

"There are also questions about selection systems involving ASBVs, indexes, genomics, sheep classers – and combinations of these actions/systems as to whether or not they are adequately selecting for lifetime performance and lifetime commercial superiority.

"In addition, many commercial wool producers and AMSEA participants have been questioning if a measure of sheep 'fitness, robustness and do-ability' could add value to selection programs to help describe sheep with the ability to perform commercially over their lives. The MLP project may help to find an answer to this question as well."

The broader aims of the project are to:

- where necessary, provide the evidence and data that the current systems can be enhanced to more accurately predict lifetime productivity

- demonstrate to the industry in a commercial environment the cost benefit relationship of measuring multiple adult traits throughout the lifetime of an animal
- validate the current breeding value technology across sheep types and environments
- provide a substantial amount of reproduction records to the MERINOSELECT database, allowing the industry to more accurately assess the relationship between all the components that make up lifetime productivity
- provide a common focus for a wide range of ram breeders with differing breeding philosophies.

## FIRST DROP OF EWE PROGENY

The Craig family's 'Tuloona' property at Harrow in Victoria was the first location selected to host a Merino Lifetime Project trial. This first MLP site, 'Elders Balmoral', joined in 2015 with 24 sires entered. It has an additional 24 sires entered for 2016.

The first drop of ewe progeny from the site attracted strong interest at the 'Elders Balmoral' sire evaluation site field day on 8 April. Woolgrowers from across the country joined the Victorian locals to inspect the progeny and discuss preliminary results on offer.

"These field days are essential to present the industry with the latest in genetics research," Classings P/L professional classer Bill Walker said. "The whole industry will benefit by the great way we can network and learn at these events."

The seven-month old ewes on display had been DNA sampled, body weighed, fleece tested, extensively classed and visually scored.

The ewes were subsequently shorn for the first time in mid-April to record fleece weight and off shears visual scores. Worm egg counts and carcass scanning will also soon be taken to complete the first year of assessment for the ewe drop.

For the next six years, this extensive list of assessments will be repeated along with an annual joining to Merino rams.

Discussions are still taking place to determine the future of the wether drop from the trial



Mid-side sampling at the 'Elders Balmoral' sire evaluation site in March. The seven month old ewes on display at the site field day in April had been DNA sampled, body weighed, fleece tested, extensively classed and visually scored.

joining. The next step for these wethers will be to be shorn and fleece sampled at yearling stage to complement the post weaning assessment undertaken on the ewes. With post weaning ASBVs now available through Sheep Genetics it will be valuable to see how the post weaning and yearling ASBVs compare on the wethers and ewes.

## TRIAL SITES REPRESENT WIDE COVERAGE

In addition to the 'Elders Balmoral' site, which has a fine wool ewe base, two further sites have been approved in the past year. 'Pingelly' in Western Australia has a fine-medium carcass orientated ewe base, and has 15 sires entered for 2016. 'MerinoLink' at Temora in NSW has fine-medium ewe base, and has 13 sires entered for 2016.

'Pingelly' and 'MerinoLink' sites have already completed their first round of artificial insemination programs with lambing due later in 2016. The selection process is under way to add a fourth site to complete the initial phase of the project.

To maximise the geographic spread and environmental coverage of the MLP, it is anticipated that the fourth site will be located in a high summer rainfall, fine wool environment.

"Across the four prospective trial sites and over 8 joinings, it is expected that a total of 135 sires will be used in the project to generate a critical mass of approximately 4,000 ewe progeny to form the basis for lifetime assessment," Neil said.

"Sires have been carefully selected to represent a range of breeding strategies, breeding philosophies, types, trait combinations, performance and to provide linkage across project sites and industry databases. The diversity of sires evaluated will facilitate a comprehensive exploration of the attributes affecting lifetime performance."

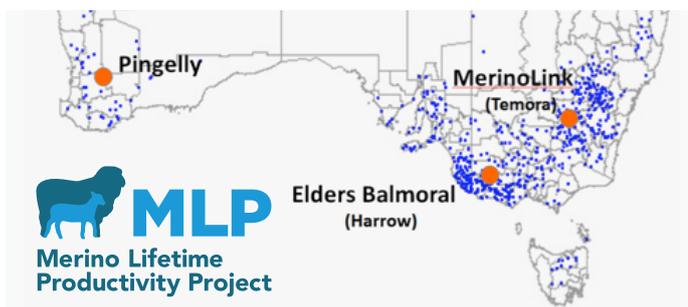
The sites involved in the project will operate like standard sire evaluation sites – following the rigorous and independently assessed measured and visual assessment protocols.

"The MLP project would like to gratefully acknowledge the host sites for their commitment to the project and their willingness to accommodate the project requirements," Neil added. "For the recent Elders Balmoral field day, particular thanks to the site committee, the Craig family and the committed staff of 'Tuloona', and the chairman of that site Tom Silcock for delivering on the first year of project requirements under challenging conditions."

Ram breeders wishing to nominate for the 2017 joining are encouraged to contact the MLP Project Manager Anne Ramsay or individual site managers. **B**

### MORE INFORMATION

The MLP project website at [www.wool.com/MLP](http://www.wool.com/MLP) includes project updates, information on the current sire entrants, and contact details for the individual site managers. MLP Project Manager Anne Ramsay, 0400 368 448, [stenhouseconsulting@bigpond.com](mailto:stenhouseconsulting@bigpond.com)



Location of the current Merino Lifetime Productivity project trial sites. The diversity of sites and sires evaluated will facilitate a comprehensive exploration of the attributes affecting lifetime performance.



AWI supported a 'Future of the Fine Wool Merinos' panel discussion at the field day, which included industry experts from the NCWSBA, NSW DPI, Australian Merino Exports, Mecardo and AWI.