

What's the Merino Lifetime Productivity Project all about?

Understanding and maximising lifetime performance is critical to increasing productivity and profits for woolgrowers.

The Merino Lifetime Productivity (MLP) project has been designed to capture lifetime data from diverse environments, genetics and Merino types to help us better understand and deliver lifetime performance outcomes for the Australian Merino industry.

The ewe progeny from 134 industry sires (known as F1 ewes) will be annually wool sampled, visually scored, fleece and body weighed, carcase scanned, faecal sampled and classed by two independent classers. The F1 ewes will be joined to Merino sires from 18 months of age and all reproduction data will be recorded until they are 5-6 years of age.

The project sires are selected to represent all breeding philosophies including breeding value trait leaders, high performance industry impact sires, major show winners and representation from all wool and skin types.

The resulting comprehensive dataset will fill important data gaps and allow the industry to learn more about the lifetime relationships between wool, carcase, disease resistance and fertility.

The data will be used to better understand how current selection approaches relate to lifetime performance, and how they might be enhanced to deliver better outcomes. We may also see the development of new selection tools or validation of existing approaches.

The MLP project is an opportunity to answer many of industry's questions in relation to selection and lifetime performance, such as:

- Is it possible to select for lifetime productivity at a young age using breeding values, genomically

enhanced breeding values, visual classing or a combination of industry supported approaches?

- What is the impact of selecting for wool, growth, reproduction, welfare and carcase traits on the productivity of Merinos over their lifetime?
- Why do some animals consistently perform year in and year out, while others fade with time?
- Are there new ways to better predict superior lifetime performance?

These questions and many more will be answered by the project. To keep up to date visit the project website, look for regular articles in Beyond the Bale and subscribe to the MLP mailing list. More details can be found at www.wool.com/MLP.

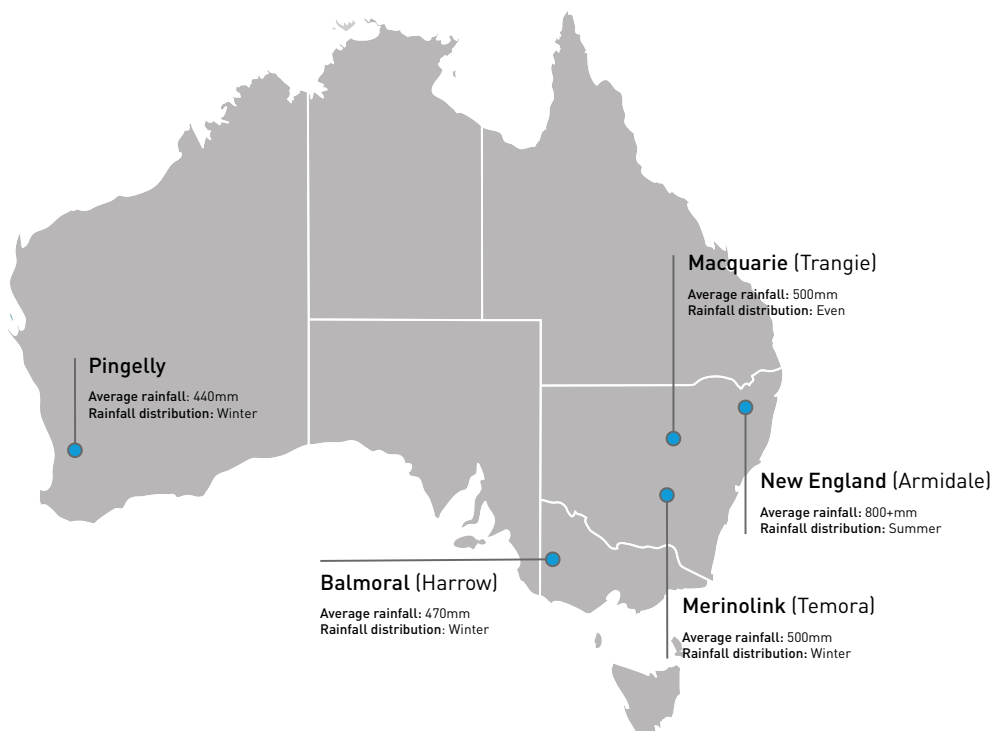
Quick facts

- The Australian Wool Innovation (AWI) funded **Merino Lifetime Productivity (MLP)** project is a \$7m (plus \$5m from partners), 10-year partnership between AWI, the Australian Merino Sire Evaluation Association, nominating stud Merino breeders and site hosts.
- The project aims to increase the understanding of 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 the 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.

Get to know the sites

This large and positive industry collaboration is made possible through the passion and enthusiasm of the five participating sire evaluation committees and host sites.

SITE	HOSTS	EWE BASE	LAMBING L SHEARING S	SITE CHAIR SITE MANAGER
Balmoral, Harrow, Vic	Balmoral Sire Evaluation Association & Tuloona Pastoral Co	17.2um, fine wool base, selecting for growth, fertility and wool cut	L: August S: February	Mark Bunge M: 0409 962 248 Tom Silcock M: 0419 882 239
MerinoLink, Temora, NSW	MerinoLink & Marty Moses	18um, previous sire evaluation progeny, and studs with ASBVs	L: June S: October	Richard Keniry M: 0427 878 541 Sally Martin M: 0400 782 477
Pingelly, WA	Yardstick Sire Evaluation Association & Murdoch University & University of WA	19.5um, meaty Merino ewes	L: July S: December	Brett Jones M: 0428 323 012 Bron Clarke M: 0418 957 293
New England, Armidale, NSW	New England Merino Sire Evaluation Association & CSIRO	17um, ultra-fine flock	L: September S: July	Duncan Lance M: 0447 297 135 Jen Smith Ph: 02 6776 1381
Macquarie, Trangie, NSW	Macquarie Sire Evaluation Association & NSW DPI	Two divergent types, 19-21um	L: May S: October	David Greig M: 0406 702 036 Kathryn Warburton M: 0429 943 708



Sire listings by site and year of drop

BALMORAL 2015	BALMORAL 2016
Billandri Poll, 130087	Centre Plus Poll, 707115
Bogo, 111424	Glen Holme , 141077 (Dohne)
Bundaleer Poll, 13V741	GRASS Merino, 142194 (R4)
Bundilla, 111265	Greendale, 120012*
Centre Plus Poll, 207316	Greenfields Poll, 140345
Darriwell, 130941	Greenland, 2.366
Glenpaen, 120042	Hannaton Poll, 120046
Greenfields Poll, 130599	Hazeldean, 11.3542 (Hugh)
Hazeldean, 11.43	Kiandra Poll, 140757
Kurra-Wirra, SR5681	Koorngal, 130519
Leahcim Poll, 090918 L*	Kurra-Wirra, SB5585
Leahcim Poll, 123153	Leahcim Poll, 090918*
Merinotech WA Poll, 100081	Melrose, 12UGB060
Mokanger, 120092	Mumblebone, 130389
Moojepin, 100248 L	Mumblebone, 140026
Mumblebone, 130389	Nerstane, 100919
Mumblebone, 130850	One Oak No.2, R56*
Nareeb Nareeb, 130380	Stockman Poll, 090853 (Stilts)
Nerstane, 130467	Terrick West Poll, 122220
One Oak No.2, R56 L*	The Mountain Dam, 11/ESA004*
Roseville Park, 140019	Trefusis, 110482
The Mountain Dam, 11/ESA004	Tuckwood Poll, 131026
Tuckwood Poll, 121021	Wallaloo Park Poll, 120912
Yalgoo, 120043	Woodyarrup, 120175
Yiddinga, 130374	Yiddinga, 141989

PINGELLY 2016	PINGELLY 2017
Billandri Poll, 130641	Anderson Rams, 140474
Boolading Blues Poll, 120708	Barloo Poll, 140027 (Eureka)
Claypans Poll, 130597	Billandri Poll, 151280
East Mundulla, 090137 (Jonty)	Coromandel Poll, 130660
Ejanding Poll, 145096	Cranmore, 13.10
Haddon Rig, 2.715	Edale, 10Z266K
Hazeldean, 11.43*	Ingle Poll, 150087
Ingle Poll, 130387	Mianelup Poll, M00540 (Expo)
Leahcim Poll, 090918*	Moojepin, 120652
Merinotech WA Poll, 100081*	Moorundie Poll, NE73
Moojepin, 140377	Neearra Poll, 110264
One Oak No.2, R56*	Range View Poll, 5-680
Rhamilly Poll, 110330 (Benny)	Trigger Vale Poll, 140477*
West Plains Poll, 110004 (Mercenary)	West Plains Poll, 110004 (Mercenary)*
Wyambah Poll, 140141	Woodyarrup, 150329

MERINOLINK 2016	MERINOLINK 2017
Bella Lana, 130296	Bundilla Poll, 140055
Boyanga, 145112	Centre Plus Poll, 407185
Glen Donald, 120014	Collinsville Poll, 130545 (Apollo)*
Greendale, 120012	DT Kenilworth, WH13017
Leahcim Poll, 090918*	Greendale, 140141
One Oak No.2, R56 *	Lachlan Merinos Poll, 015305
Pastora Poll, 082893	Leahcim Poll, 132624
Poll Boonoke, 120020	Tallawong, 150280
Pooginook Poll, 140632	Toland Poll, 151058
Roseville Park, 140611	Trefusis, 150282
Trigger Vale Poll, 140477	Trigger Vale Poll, 140477*
Wattle Dale, 140754	Wallaloo Park Poll, 150422
Wurrook, 130149	West Plains Poll, 110004 (Mercenary)*

MACQUARIE 2017	MACQUARIE 2018
Centre Plus Poll, 707115 *	Anderson Rams, 150266
Collinsville Poll, 130545 (Apollo)	Centre Plus Poll, 707115*
Darriwell, 130941 *	Charinga, 130240 (Doc)
GRASS Merino, 122190 (P47) L	Glen Donald, 120014*
Gullen Gamble Poll, 120018	GRASS Merino, 141924 (R15)
Hazeldean, 13.4936	Gullen Gamble Poll, 14189
Kerin Poll, 151911	Haddon Rig, 2.715*
Moojepin, 120652 *	Hazeldean, 11.3542 (Hugh)*
Mumblebone, 151367	Kerin Poll, 160137
Roseville Park, 132933	Langdene, 160950
Trigger Vale Poll, 140477 *	Lewisdale Poll, 150010 (Monty)
Wanganella, 130816	Orrie Cowie, 140050 (Trojan)
West Plains Poll, 110004 (Mercenary)*	Roseville Park (Poll), 150039
Wilgunya, 121224	Stockman Poll, 130707 (Pioneer)
Willandra Poll, 140030 (Des)	Wanganella, 150610
	Willandra Poll, 160001

NEW ENGLAND 2017	NEW ENGLAND 2018
Connemara Poll, 140257	Alfoxton, 150430
Conrayn, MVB123	Avington Poll, 160047
Cressbrook, 140055	Bungulla, 160350
Egelabra, HEK 1.36	Clovernook Poll, 160095
Grindon, 150017	Cressbrook, 140055*
Karori, 140188	Eilan Donan, Harvey (5145)
Miramoonna, 140012	Europambela, 120101
Mirani, 120021	Hillcreston Park Poll, 110143
Moorundie Poll, NE73*	Hilltop, HT Poll 156
Nerstane, 150073	Karori, 150222
Petali Poll, 150697	Nerstane, 150073*
Trefusis, 150282*	Petali Poll, 160849
Trigger Vale Poll, 140477*	Tallawong (Poll), 150280*
West Plains Poll, 110004 (Mercenary) L*	Wurrook, 130149*
Yalgoo, 150313	Yalgoo, 160070

L= Funded links to sire evaluation,
* = between MLP site linkage

Lifetime annual recording

For the first two years the sites operate like a standard sire evaluation following the rigorous protocols to independently assess both the measured and visual performance of a sire's progeny. At the conclusion of the standard sire evaluation phase (generally once progeny are between 18 to 24 months of age), AWI supports the ongoing measurement and visual assessment of all ewe progeny (F1 ewes) through 4-5 joinings and annual shearings.

Wool Measurements	Fleece weight, yield, fibre diameter, fibre diameter standard deviation, fibre diameter coefficient of variation, staple strength, staple length, comfort factor and curvature
Growth & Carcase	Body weight, eye muscle, fat depth and adult ewe size
Health and Welfare	Worm egg count, faecal consistency, dag, urine stain, breech cover, crutch cover, breech wrinkle, and weaner and adult survival
Visual Wool Traits	Fleece rot, wool colour, wool character, dust penetration, staple weathering, staple structure, fibre pigmentation, non-fibre pigmentation, recessive black and random spot
Visual Conformation Traits	Face cover, jaw, legs/feet, shoulder/back, body wrinkle
Classing	Two classings with independent sheep classers (flock classing and stud classing approach)
Joining, Pregnancy, Lambing	Sire, dam, pregnancy scanning, number of lambs weaned (fertility, litter size, lamb survival) body weight and condition score (at pre-joining, pregnancy scanning, pre lambing, weaning)
DNA	Pedigree and genotyping

The resulting data will be used for a vast number of statistical, economic and genetic analysis to better understand the drivers of lifetime productivity, to better refine existing selection approaches and to identify the most cost effective means to achieve productivity.

Keep up to date

Individual site reports and the latest in project updates can be accessed via the project website www.wool.com/MLP

Subscribe to the MLP Mailing List via www.wool.com/mlp-subscription

Annual site field days provide a chance to inspect the F1 ewes first hand. Check the project website for a list of upcoming field days.



Project contact details

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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. GD2802 May 2019



www.wool.com/MLP