New England Merino Sire Evaluation

2023 Drop

Results Update – April 2024

New England Merino Sire Evaluation
Australian Merino Sire Evaluation Association (AMSEA) trials provide the opportunity for objective comparisons to be made between rams from different studs by evaluating their progeny for sheep type, structure, wool production and carcase traits. The progeny are all run together in the same environmental conditions with all male progeny marked. The New England site has a long and proud history of conducting sire evaluations, commencing in 1990. The New England is a unique summer dominant high rainfall environment that really challenges wool quality, sheep conformation and parasite resistance, providing excellent data for sire entrants. This is an accredited sire evaluation program run under the rigorous design, recording and data evaluation protocols of AMSEA.

Site Breeding Objective
The Breeding objective of the host flock is to maximise fleece weight while maintaining micron and continue to produce a hardy sheep that is fly strike resistant, resilient to internal parasites and is structurally sound.

Host Property and Ewe Base
The generous hosts of the 2023 evaluation are the Swales family of “Woodlands”, 50km west of Armidale near Kingstown NSW. Woodlands is a 4200Ha grazing property based mainly on native pastures with a summer dominant average annual rainfall of 675mm. The Swales aim to produce a moderate framed, fine/superfine wool animal that is easy care and productive. The self-replacing merino flock is based on Cressbrook blood, with wethers retained for wool production. The flock is non-mulesed and has been for at least 10 years. The wool clip averages around 16.5 micron with an average adult wool cut of 4.5kg.

2023 Drop Summary
The 2023 drop evaluates 15 sires, including 2 Link Sires, with 50 ewes joined per sire. AI was conducted over two days, the 2nd and 3rd of April 2023. Pregnancy scanning was conducted on the 31st of May with the result of 62% conception. The ewes were run as one mob on fertilized native pastures until the 15th of August 2023 when they were given a pre lamb treatment of Barbervax, Trifecta and 5 in 1 B12 vaccine. The mob was split into the twin mob of 117, and 348 singles split into 3 mobs for lambing. The ewes were in excellent condition prior to lambing and had been supplemented with faba beans up until lambing. After lambing had finished supplementation with faba beans resumed due to the dry seasonal conditions, and this imprinted the lambs well. Lamb marking took place on the 4th of October 2023 with 180 twin lambs and 316 single lambs marked. Visual traits were scored and DNA samples taken for parentage testing. The singles were put back as one mob and the twins left for a week to mother up before also being put together with the singles. At marking lambs received their first Barbervax as well as Metacam for pain relief, 5 in 1 B12 vaccine, and click on the tail for fly prevention.

The lambs were weaned on the 13th of December 2023. Average weight at weaning was 23.7kg. At weaning the lambs received Barbervax, Trifecta and were jetted with Jetaway. The lambs grazed fresh paddocks and supplementation with faba beans continued. On the 17th of February 2024 they weighed 25.7kg. Mid-side samples were taken, and visual classing/trait assessment conducted on the 20th of February 2024. The lambs were shorn on the 11th of April 2024 with GFW measured. Off-shears trait assessment was conducted on the 24th of April 2024.

Sponsors, Contributors and Volunteers
We would like to acknowledge the generous support and thank those individuals, and/or businesses that have contributed to helping the site run as smoothly as possible throughout the year, whether that be in the form of providing labour, or helping with specific tasks as required by the AMSEA protocols. Thank you to all the

NEMSEA site committee, and also to AMSEA, AWN, Datamars Livestock Australia, Elanco, Elders, Genstock (Dubbo), GrazAg, GYST Parasitology, New England Fibre Testing, Nutrien, Outcross Systems and Virbac. It is especially important to acknowledge the Swales family and their team at Woodlands, who importantly offered to be the host site for 2022 & 2023 drops for the New England Merino Sire Evaluation Trial, as well as volunteering their own time in planning and labour.

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New England Merino Sire Evaluation Site Committee

Chairman/AMSEA Rep	Todd Whillock
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Site Owner (2022/2023 drops)	Swales Family, Woodlands
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2023 Drop – Classer's Visual Grade

A classer grades all progeny as either Tops, Flocks or Culls based on their visual assessment of all traits relative to the site's Breeding Objective. The percentage deviation from the average of Tops and Culls is presented in this report. Average percentage of Tops and Culls for the entire drop is also included.

Breeders flock, Sire number	Number of Progeny*	Post Weaning	
		TOPS (%)	CULLS (%)
Centre Plus Poll, 707350	37	0	-10
Danbury Meat Merinos Poll, 200464	37	-11	12
Edale, 19X454	31	-16	24
GRASS, 212352	33	-5	22
Glenwood, 201113	36	26	-23
Greendale, 210210	25	-12	31
Gringegalgona Poll, 210958	33	15	-19
Hazeldean, 001009	36	-2	-7
Karbullah Poll, 210418	33	12	-10
Laraben Poll, 200393	25	-4	-5
Muckra, 210043	15	-2	-24
Nerstane, 190200	31	-4	17
Ridgway Poll, 170005	38	3	-3
Trefusis, 170436	34	-6	-2
Yalgoo, 210286	29	5	-2
Progeny group average	**32**	**16**	**37**

***Progeny number at Post Weaning Classing.**

Classer's Visual Grade is reported as Adjusted Sire Means; Results which have been adjusted for all available information on sex, birth type, rear type, age of dam, age of measurement, the number of progeny a sire has and management group(s), in order to improve the accuracy. No account is made for trait heritability or genetic correlations between traits that can further improve the accuracy.

2023 Drop – Visual Traits

Breeders flock, Sire number	Number of Progeny*	Breech Traits				Wool Quality						Conformation			
		BRWR	BCOV	BRWR	BCOV	FLROT	COL	CHAR	DUST	WEATH	SSTRC	BACK	FACE	BDWR	NKWR
		Marking		Post Weaning		Post Weaning						Post Weaning			
Centre Plus Poll, 707350	37	1.8	2.6	2.1	3.1	2.1	2.1	1.9	2.4	2.7	2.2	1.6	2.8	1.9	2.1
Danbury Meat Merinos Poll, 200464	37	1.4	2.8	1.8	3.2	2.4	2.3	2.3	2.4	2.8	2.1	1.3	2.3	1.4	1.6
Edale, 19X454	31	2.8	3.1	3.1	3.4	2.3	2.3	2.1	2.0	2.2	2.1	1.4	2.9	2.4	2.7
GRASS, 212352	33	1.8	2.6	2.0	3.2	2.1	2.1	2.5	2.4	2.8	2.1	1.3	2.5	1.9	2.0
Glenwood, 201113	36	1.6	3.4	1.7	3.6	1.8	1.5	1.5	2.1	2.8	2.3	1.9	2.8	1.3	1.8
Greendale, 210210	25	2.4	3.3	3.0	3.3	2.5	2.1	2.0	2.3	2.6	2.3	2.0	2.8	2.4	2.7
Gringegalgona Poll, 210958	33	2.6	3.6	2.9	3.5	1.8	1.6	1.6	1.8	2.2	2.6	1.6	2.9	2.3	2.6
Hazeldean, 001009	36	2.0	3.6	2.6	3.7	2.1	2.2	1.9	2.3	2.7	2.4	1.8	3.0	1.9	2.2
Karbullah Poll, 210418	33	1.7	3.0	1.9	3.4	1.9	1.9	1.6	2.4	3.0	2.2	1.3	2.6	1.5	1.8
Laraben Poll, 200393	25	2.2	3.8	2.8	3.8	2.2	2.0	2.0	2.4	2.5	2.8	2.1	2.9	2.4	2.5
Muckra, 210043	15	2.4	3.5	2.8	3.5	2.0	1.8	1.7	2.3	2.1	2.5	1.5	3.0	2.1	2.3
Nerstane, 190200	31	2.1	3.4	2.2	3.7	2.4	2.3	2.1	2.4	2.6	2.3	2.1	3.0	1.6	2.1
Ridgway Poll, 170005	38	1.8	3.5	2.0	3.6	2.2	2.1	1.8	1.9	2.4	2.5	1.7	2.8	1.7	1.8
Trefusis, 170436	34	2.6	2.8	3.1	3.3	2.2	2.0	1.9	2.0	2.3	2.3	1.6	2.9	2.3	2.6
Yalgoo, 210286	29	2.5	3.7	2.9	4.1	2.0	1.9	2.1	2.2	2.5	2.6	1.7	2.9	2.5	2.6
Progeny group average	**32**	**2.1**	**3.2**	**2.4**	**3.5**	**2.1**	**2.0**	**1.9**	**2.2**	**2.6**	**2.3**	**1.6**	**2.8**	**1.9**	**2.2**

***Progeny number at Post Weaning Classing.**

The results presented in the table above are Adjusted Sire Means, see page 3 for further explanation.

Visual Traits as reported:	Scored between 1-5 based on the Visual Sheep Scores		
	BCOV: Breech Cover BRWR: Breech Wrinkle FLROT: Fleece Rot COL: Wool Colour	CHAR: Wool Character DUST: Dust penetration WEATH: Staple Weathering SSTRC: Staple Structure	BACK: Back and Shoulders FACE: Face Cover BDWR: Body Wrinkle NKWR: Neck Wrinkle
Trait Leaders:	The highest performing 3 (or more if equal) sires for each trait (trait leaders) are highlighted by shading.		

2023 Drop – Adjusted Sire Means: Wool and Weight

Breeders flock, Sire number	Number of Progeny*	Wool					Weight	
		PGFW (kg)	PCFW (kg)	PFD µm	PFDCV µm	PCURV (deg/mm)	WWT (kg)	PWT (kg)
Centre Plus Poll, 707350	38	1.7	1.3	15.7	18.6	80.3	24.5	27.1
Danbury Meat Merinos Poll, 200464	37	1.6	1.2	16.0	18.3	81.0	23.7	26.4
Edale, 19X454	30	1.5	1.1	14.8	18.6	87.5	22.5	24.2
GRASS, 212352	33	1.6	1.2	16.1	17.7	84.7	23.4	26.6
Glenwood, 201113	35	1.8	1.4	15.7	17.9	73.0	24.3	26.3
Greendale, 210210	27	1.6	1.3	15.0	18.6	81.9	23.6	25.3
Gringegalgona Poll, 210958	33	1.7	1.3	15.2	20.0	81.7	23.5	24.5
Hazeldean, 001009	37	1.6	1.2	14.8	19.1	81.3	23.1	25.6
Karbullah Poll, 210418	33	1.5	1.2	15.4	18.5	76.9	23.3	26.8
Laraben Poll, 200393	25	1.7	1.3	15.0	19.6	80.1	23.7	23.7
Muckra, 210043	16	1.8	1.5	15.0	18.4	78.6	24.1	25.4
Nerstane, 190200	31	1.6	1.2	14.8	18.7	80.1	23.5	25.2
Ridgway Poll, 170005	38	1.8	1.4	15.2	18.2	77.0	25.4	27.7
Trefusis, 170436	35	1.6	1.2	14.9	18.6	83.4	23.9	25.5
Yalgoo, 210286	30	1.7	1.3	14.8	20.6	79.8	22.8	24.2
Progeny group average	**32**	**1.6**	**1.3**	**15.3**	**18.7**	**80.4**	**23.7**	**25.7**

***Progeny number at weaning.**

The results presented in the table above are Adjusted Sire Means, see page 3 for further explanation.

Age Stage:
W = Weaning (40-149 days); P = Post Weaning (150-299 days)

Traits:
Abbreviation, trait (units reported)

GFW:	Greasy fleece weight (kg)
CFW:	Clean fleece weight (kg)
FD:	Average fibre diameter (um)
FDCV:	Fibre diameter coefficient of variation (percentage)
CURV:	Fibre curvature (degrees/mm)
WT:	Body weight (kg)

Trait Leaders: The highest performing 3 (or more if equal) sires for each trait (trait leaders) are highlighted by shading.

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2023 Drop – Flock Breeding Values: Wool and Weight

Breeders flock, Sire number	Number of Progeny	Wool					Weight	
		PGFW (%)	PCFW (%)	PFD µm	PFDCV µm	PCURV (deg/mm)	WWT (kg)	PWT (kg)
Centre Plus Poll, 707350	38	8	4	0.8	-0.2	-0.5	1.4	3.0
Danbury Meat Merinos Poll, 200464	37	-8	-8	1.4	-0.9	0.6	0.2	1.5
Edale, 19X454	30	-13	-21	-0.9	-0.4	11.1	-2.0	-3.2
GRASS, 212352	33	-7	-7	1.7	-1.8	7.5	0.6	2.2
Glenwood, 201113	35	12	14	0.8	-1.2	-12.3	0.9	1.4
Greendale, 210210	27	-3	2	-0.5	-0.2	2.1	-0.2	-0.4
Gringegalgona Poll, 210958	33	1	4	-0.1	1.8	1.6	-0.6	-2.5
Hazeldean, 001009	37	-2	-3	-0.8	0.5	1.6	-0.7	-0.3
Karbullah Poll, 210418	33	-9	-8	0.3	-0.5	-5.0	0.3	2.5
Laraben Poll, 200393	25	1	3	-0.5	1.2	-1.3	-0.9	-4.0
Muckra, 210043	16	12	13	-0.3	-0.1	-2.7	0.1	-0.3
Nerstane, 190200	31	-6	-5	-0.7	-0.1	-0.1	0.0	-0.8
Ridgway Poll, 170005	38	10	12	0.0	-0.8	-5.6	2.6	4.4
Trefusis, 170436	35	-5	-7	-0.6	-0.3	4.9	0.2	-0.1
Yalgoo, 210286	30	9	8	-0.8	2.8	-1.8	-1.8	-3.4

***Progeny number at weaning.**

These FBVs are calculated from data recorded within-site and within-drop and express the expected genetic performance of a sire relative to another sire in the evaluation (when mated to the same standard of ewes). FBVs improve the accuracy of sire results because they account for the difference in the age of the progeny, trait heritability, genetic correlations between traits and non-genetic effects such as birth type, rear type, sex, age of dam, management group and differences in progeny group sizes.

Age Stage: W = Weaning (40-149 days); P = Post Weaning (150-299 days)	
Traits: Abbreviation, trait (units reported)	GFW: Greasy fleece weight (kg) CFW: Clean fleece weight (kg) FD: Average fibre diameter (um) FDCV: Fibre diameter coefficient of variation (percentage) CURV: Fibre curvature (degrees/mm) WT: Weight (kg)
Trait Leaders:	The highest performing 3 (or more if equal) sires for each trait (trait leaders) are highlighted by shading.

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