

## SA MERINO SIRE EVALUATION TRIAL + RED MEAT & WOOL FOCUS FARM FIELD DAY

FRIDAY JUNE 3<sup>RD</sup> 2022, MENTARA PARK  
2021 DROP PROGENY

### Schedule

11:00am Field Day begins

Marquee Presentations

- **11:30** Roger Fiebig, SA Merino Sire Evaluation Trial Chairman *Welcome*
- **11:35** David Eckert, SA Merino Sire Evaluation Trial Site Host *Site Summary*
- **11:40** Ben Swain, AMSEA Executive Officer (via Zoom) *Sire Evaluation Results*
- **12:00** Bill Burgess, National Business Development Manager – ANZ, Weatherbys Scientific Australia *Sheep Genomics Information Session*
- **12:15** Peta Bradley, Manager - Sheep Genetics, Meat & Livestock Australia. *Sheep Genetics Update*

Inspection of 2021-drop progeny in sire groups alongside results from measured and visual assessments.

3:00pm Field Day closes

### South Australian 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 SA site was established in 2017, and is important for South Australia's Merino industry given no other public Merino sire evaluation trials occur in SA. The site will make an important contribution to genetic improvement for Merinos in SA. This is an accredited sire evaluation program run under the rigorous design, recording and data evaluation protocols of AMSEA.

### Site Breeding Objective

Rams will be capable of producing progeny with 18-21 micron fleece at 12 months with at least 4kg of wool from 8 months growth from an easy-care plain bodied sheep. In addition, progeny should be capable of achieving 22-25kg carcase weight at 10-12 months of age. Ewe progeny will be fertile and capable of high natural conception rates when first joined at 18 months.

### Host Property and Ewe Base

In their first year as host of the SA Merino Sire Evaluation Trial, the Eckert family at Mentara Park, Malinong are generously hosting the 2021 Drop. This follows Keyneton Station who hosted the 2017 and 2018 Drops, and the McMahan family at McPiggery who hosted the 2019 and 2020 Drops. Mentara Park receives an average of 425mm rainfall in a Winter dominant pattern. The Mentara Park ewe is purposely bred to be highly fertile, free-skinned and twice-yearly shearing capable. They have a mature weight of 70-75kg producing approximately 20 micron wool at 65-70% yield depending on the season. The ewes mated for the 2021 Drop trial were sourced primarily from a rising 3-4 year old age group and were classed prior to joining to ensure an even line.

## 2021 Drop Summary

The site evaluated 15 entered rams including 2 link sires. 57 ewes were joined to each sire via AI in mid-December 2020 over two days. At day 50, the ewes were scanned as pregnant with a resulting conception rate of 45% from the AI program. At this time, the ewes were separated into scanning groups of singles and multiples. Just prior to lambing, the ewes were further split into single-bearing mobs of 60 ewes, twin-bearing mobs of 35 ewes, as well as one small mob of triplet-bearing ewes. Ewes grazed barley and wheat stubbles as well as being fed supplementary silage, with grain introduced in the lead up to lambing. To avoid disturbance, ewes were not supplementary fed during the lambing period. The break in the season occurred in late May 2021.

The first cohort of lambs born from the 15 rams occurred in mid-May 2021. Lamb marking took place on the 15<sup>th</sup> June 2021 with visual traits fibre pigmentation, non-fibre pigmentation, recessive black, random spot, breech cover and breech wrinkle recorded. Sire pedigree was established by DNA testing. There were 572 progeny generated across the 15 rams. The average marking breech cover was visually assessed as 2.4 (from a range of 1-5, as per the Visual Sheep Scores publication), and the average marking breech wrinkle was visually assessed as 2.0 (from a range of 1-5, as per the Visual Sheep Scores publication). This indicates the lambs were plain. Following lamb marking, lambing mobs were boxed up again from which time the ewes and lambs resumed supplementary feeding of silage and grain. Once it became wet, supplementary feeding changed to hay and grain up until weaning.

Progeny were weaned at 13 weeks of age in mid-August 2021. Weaning weights were assessed, with an average weaning weight of 29.3kg live weight. Progeny then ran together on lucerne veldt grass based pasture. Supplementary feeding ceased at weaning and has not been required since through Summer and Autumn 2022. Lambs were shorn in September 2021. Mentara Park had a good wet Winter 2021 with average rainfall which promoted adequate pasture growth. Rainfall during Spring 2021 leading into Summer 2022 was below average.

On April 22, 2022 carcass scanning traits Eye Muscle Depth and Fat were collected. The remaining major phenotyping was recorded on May 10, 2022 for the 2021 drop progeny including:

- Mid-side fleece sampling: yield, fibre diameter, fibre diameter coefficient of variation, fibre diameter standard deviation, curvature, comfort, staple strength and staple length.
- Visual classing: fleece rot, wool colour, wool character, dust penetration, staple structure, face cover, jaw, legs/feet, dag, and Classifier's Visual Grade.

Shearing is scheduled to occur on June 6, 2022 with greasy fleece weight being collected, and post shearing visual traits shoulder/back and body wrinkle being assessed. Shortly after, the wether component of the 2021 drop will be sold. The ewe component of the 2021 drop will be taken through to their adult assessments in early 2023, including mid-side sampling, visual classing, greasy fleece weight at shearing and post shearing visual traits. WEC has not been collected as minimum testing thresholds have not been reached. This adult shearing of the ewes will mark the completion of the 2021 drop trial.

---

### For further information in relation to Sire Evaluation please contact:

Ben Swain, AMSEA Executive Officer  
0427 100 542 or [ben.swain@bcsagribusiness.com.au](mailto:ben.swain@bcsagribusiness.com.au),

Anna Cameron, SA Merino Sire Evaluation Site Coordinator  
0403 747 332 or [acameron@yalumba.com](mailto:acameron@yalumba.com)

---

### SA Merino Sire Evaluation Site Committee

Chairman	Roger Fiebig	Breeder Representative	Hansi Graetz
Site Owner (2017/2018 drops)	Keynes Family	Breeder Representative	Matt Ridgway
Site Owner (2019/2020 drops)	Duane Simon, McPiggery	Breeder Representative	Stephen Kellock
Site Owner (2021/2022 drops)	Eckert Family	Site Coordinator	Anna Cameron
Data Manager	Michelle Cousins	Industry Service Provider &	
Finance & Administration	Rachel Titley	AMSEA Site Representative	Bill Walker

## 2021 Drop – Adjusted Sire Means

### Wool, Weight and Carcase Results

Breeders flock, Sire number	Progeny No.*	YFD (µm)	YFDCV (%)	YSL (mm)	YSS (NKtex)	WWT (kg)	PWT (kg)	YWT (kg)	YEMD (mm)	YFAT (mm)
Anderson Poll, 160729 (Link)	43	18.7	15.0	89.4	49.2	30.0	56.5	61.0	34.6	4.3
Callowie Poll, 190055	31	18.7	16.7	86.4	45.0	29.0	53.6	57.4	33.4	3.8
Claypans Poll, 170632 (Link)	37	17.9	15.6	82.1	43.9	30.1	52.2	55.7	32.4	3.6
Flairdale Poll, 190401	17	19.2	15.7	91.6	51.0	30.8	56.0	58.4	34.0	4.1
Forest Springs Poll, 190193 (Link)	45	18.6	15.6	91.4	43.9	30.0	56.2	60.0	33.8	4.3
Hazeldean, 002529 (Link)	46	18.1	15.4	83.8	45.1	29.4	53.1	57.2	33.0	3.9
Kelvale Poll, 191148	38	18.6	15.4	93.8	43.2	29.9	53.9	57.9	33.8	3.6
Loelmo Poll, 160172	43	17.4	16.9	88.6	43.3	26.5	48.9	53.0	32.7	3.6
Malleetech Poll, 199100	32	19.2	15.4	86.1	50.7	29.5	52.6	57.5	34.0	4.1
Mumblebone, 191150	42	18.4	15.8	93.7	41.4	28.8	52.9	57.9	34.2	4.3
Nantoura Poll, 190061	53	18.7	15.2	93.4	46.8	28.8	52.3	56.7	33.8	4.2
O'Brien Poll, 190455	39	18.3	14.7	88.1	49.9	30.8	57.8	60.8	34.5	4.1
Ridgway Poll, 190240	44	18.6	15.3	84.4	47.3	27.6	52.2	56.8	32.8	4.0
The Yanko, 190086	25	17.6	16.9	86.1	38.9	30.6	52.8	56.5	32.7	3.6
Wallaloo Park Poll, 172032	21	17.6	16.5	85.9	43.8	29.1	55.0	58.5	34.5	3.8
<b>Average</b>	<b>37</b>	<b>18.4</b>	<b>15.7</b>	<b>88.5</b>	<b>45.5</b>	<b>29.3</b>	<b>53.6</b>	<b>57.7</b>	<b>33.6</b>	<b>4.0</b>

\*Progeny no. at weaning.

These adjusted sire means are the average performance of all the progeny of a sire adjusted for an individual's birth type, rear type, sex, age of dam, management group and differences in progeny group sizes. Adjustments improve the accuracy of the result and the size of the adjustment is based on the actual influence of these factors on the drop. No account is made for the difference in the age of the progeny, trait heritability and genetic correlations between traits.

The overall progeny group mean is listed at the bottom of the table.

<b>Age Stage:</b>		
W = Weaning (42-120 days); P = Post Weaning (210-300 days); Y = Yearling (300-400 days); H = Hogget (400-540 days); A = Adult (1.5-2.5 years).		
<b>Traits:</b>	FD: Average fibre diameter (µm)	SS: Staple strength (NKtex) at the mid-side
Abbreviation, trait (units reported)	FDCV: Fibre diameter coefficient of variation (%)	WT: Body weight (kg)
	CFW: Clean fleece weight (kg)	EMD: Eye muscle depth (mm) at the 'C' site
	SL: Staple length (mm) at the mid-side	FAT: Fat depth (mm) at the 'C' site
<b>Trait Leaders:</b>	The highest performing 3 (or more if equal) sires for each trait (trait leaders) are highlighted by shading.	

## 2021 Drop – Adjusted Sire Means

### Visual Scores

Breeders flock, Sire number	Progeny No.*	Breech Scores @ Marking		Yearling Classing				
		BRWR	BCOV	COL	CHAR	SSTRC	LEGS	FACE
Anderson Poll, 160729 (Link)	43	1.6	2.3	2.6	2.5	3.2	1.5	2.5
Callowie Poll, 190055	31	1.7	2.0	2.8	2.6	3.8	1.4	3.0
Claypans Poll, 170632 (Link)	37	2.7	2.5	2.3	2.5	3.9	1.3	3.0
Flairdale Poll, 190401	17	1.7	2.1	2.7	2.4	3.4	1.9	2.8
Forest Springs Poll, 190193 (Link)	45	2.0	2.2	2.5	2.0	3.4	1.2	2.4
Hazeldean, 002529 (Link)	46	2.1	2.4	2.7	2.6	3.2	1.7	3.1
Kelvale Poll, 191148	38	2.0	2.8	2.5	2.2	3.4	1.7	2.5
Lorelmo Poll, 160172	43	1.9	3.2	2.2	2.1	3.1	1.3	3.0
Malleetech Poll, 199100	32	2.2	2.1	2.8	3.0	3.8	2.5	3.1
Mumblebone, 191150	42	2.0	1.9	2.2	2.3	3.4	1.8	2.6
Nantoura Poll, 190061	53	2.0	2.5	2.6	1.5	3.4	1.0	2.8
O'Brien Poll, 190455	39	1.8	2.5	3.0	2.2	3.6	1.5	2.8
Ridgway Poll, 190240	44	1.5	2.3	3.0	2.2	3.4	1.6	3.0
The Yanko, 190086	25	2.6	2.8	2.5	1.8	3.8	1.4	3.5
Wallaloo Park Poll, 172032	21	2.0	2.4	2.4	2.1	3.8	1.3	2.9
<b>Average</b>	<b>37</b>	<b>2.0</b>	<b>2.4</b>	<b>2.6</b>	<b>2.3</b>	<b>3.5</b>	<b>1.5</b>	<b>2.8</b>

\*Progeny no. at weaning.

### Classer's Grade

Classer's Grade - Yearling		
Progeny No.*	TOPS (%)	CULLS (%)
41	-2	-12
31	-18	24
36	-9	-8
17	0	-9
45	25	-22
42	-12	14
37	25	-3
40	5	-2
31	-27	30
41	11	-12
52	19	-15
38	2	-1
43	-13	19
24	-10	3
20	2	-5
<b>34</b>	<b>29</b>	<b>24</b>

\*Progeny no. at Yearling classing.

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

A classer grades all progeny as either Top, Flock or Cull based on their visual assessment of all traits relative to the Site's Breeding Objective (see page 1). This classing reflects the approach that may be undertaken in a commercial flock. Tops and Culls are reported as the group's percentage above / below the drop average, ie. a more positive *Tops* result is better as is a more negative *Culls* result. Progeny are also assessed for a range of visual traits.

<b>Visual Traits as reported:</b>	Scored betw. 1-5 based on the Visual Sheep Scores. BRWR: Breech Wrinkle BCOV: Breech Cover CHAR: Wool Character COL: Wool Colour	SSTRC: Staple Structure CHAR: Wool Character FACE: Face Cover LEGS: Feet and Legs Further traits are available in Site Reports.
<b>Trait Leaders:</b>	The highest performing 3 (or more if equal) sires for each trait (trait leaders) are highlighted by shading.	

## 2021 Drop – Flock Breeding Values

### Wool, Weight and Carcase Results

Breeders flock, Sire number	Progeny No.*	YFD (µm)	YFDCV (%)	YSL (mm)	YSS (Nktex)	WWT (kg)	PWT (kg)	YWT (kg)	YEMD (mm)	YFAT (mm)
Anderson Poll, 160729 (Link)	43	0.5	-1.3	1.5	6.1	0.5	2.3	3.8	0.1	0.5
Callowie Poll, 190055	31	0.5	1.4	-2.6	-0.9	-0.8	-0.4	-0.1	-0.1	-0.4
Claypans Poll, 170632 (Link)	37	-0.6	-0.2	-10.3	-1.7	0.6	-1.2	-2.6	-1.0	-0.8
Flairdale Poll, 190401	17	1.1	-0.2	4.2	6.2	2.5	2.5	1.6	0.3	0.2
Forest Springs Poll, 190193 (Link)	45	0.4	-0.1	5.3	-2.9	2.4	3.5	4.2	-0.6	0.6
Hazeldean, 002529 (Link)	46	-0.5	-0.5	-7.8	-0.8	-0.6	-1.0	-1.4	-0.7	-0.1
Kelvale Poll, 191148	38	0.4	-0.4	9.1	-3.4	0.3	0.2	0.1	0.2	-0.8
Loelmo Poll, 160172	43	-1.6	1.8	0.0	-3.7	-5.0	-5.7	-7.1	0.7	-0.2
Malleetech Poll, 199100	32	1.2	-0.6	-3.5	7.3	0.3	-0.6	-0.4	0.8	0.4
Mumblebone, 191150	42	0.2	0.2	9.0	-5.9	0.0	-0.2	0.9	0.7	1.0
Nantoura Poll, 190061	53	0.6	-0.8	8.8	1.9	-1.3	-1.6	-1.6	0.8	0.7
O'Brien Poll, 190455	39	-0.2	-1.5	-0.3	6.0	2.4	3.8	4.1	0.2	0.0
Ridgway Poll, 190240	44	0.3	-0.6	-6.3	2.8	-2.4	-1.6	-1.1	-0.9	0.2
The Yanko, 190086	25	-1.1	1.8	-3.3	-8.4	1.5	-0.3	-1.3	-1.0	-0.8
Wallaloo Park Poll, 172032	21	-1.2	1.0	-3.7	-2.8	-0.5	0.3	0.9	0.6	-0.4

\*Progeny no. 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.

<b>Age Stage:</b>		
W = Weaning (42-120 days); P = Post Weaning (210-300 days); Y = Yearling (300-400 days); H = Hogget (400-540 days); A = Adult (1.5-2.5 years).		
<b>Traits:</b>	FD: Average fibre diameter (µm)	SS: Staple strength (Nktex) at the mid-side
Abbreviation, trait (units reported)	FDCV: Fibre diameter coefficient of variation (%)	WT: Body weight (kg)
	CFW: Clean fleece weight (kg)	EMD: Eye muscle depth (mm) at the 'C' site
	SL: Staple length (mm) at the mid-side	FAT: Fat depth (mm) at the 'C' site
<b>Trait Leaders:</b>	The highest performing 3 (or more if equal) sires for each trait (trait leaders) are highlighted by shading.	

### SPONSORS, CONTRIBUTORS AND VOLUNTEERS

As a non-profit site, our sponsors provide a very important contribution, and we would like to acknowledge their generous support of the SA Merino Sire Evaluation Trial. We would also like to thank those individuals, and/or businesses whom have volunteered their time in 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. It is important to acknowledge Mentara Park, who importantly offered to be the host site for 2021 & 2022 drops for the SA Merino Sire Evaluation Trial, as well as volunteering their own time in planning and labour.



FOR REGULAR UPDATES AND REPORTS VISIT  
[www.merinosuperiorsires.com.au](http://www.merinosuperiorsires.com.au)