South Australian

Merino Sire Evaluation

Site Report

2024 Drop
Yearling Assessment

Within-Site Results
June 2025

Conducted by

South Australian Merino Sire Evaluation Trial Committee

Under the auspices of

With support from

Foreword

South Australia 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 that typify SA Merino production 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. Supported by Merino SA, the trial is an accredited sire evaluation program run under the rigorous design, recording and data evaluation protocols of AMSEA.

Turretfield Research Centre at Rosedale are generously hosting the 2024 and 2025 drops of the SA Merino Sire Evaluation Trial. This follows Keyneton Station, Keyneton who hosted the 2017 and 2018 drops, the McMahon family at McPiggery Lameroo, who hosted the 2019 and 2020 drops, and the Eckert Family of Mentara Park, Malinong who hosted the 2021 and 2022 drops. There is significant interest in the site from both SA and interstate ram breeders, with the quality of rams entered of very high calibre.

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 Site. We would also like to thank those individuals and/or businesses, including Merino SA and many industry service providers who have volunteered their time, service and/or product in helping the site run as smoothly as possible throughout the year.

Stephen Kellock
Chairman
South Australia Site Committee

Site Committee

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Contents

2024 Drop Yearling Assessment

The information in this Site Report provides the results of the assessment of the 2024 drop, including the Yearling assessments of the sire's progeny performance for measured and visually assessed traits.

The Yearling midside fleece assessments were completed at 10 months of age with 10 months of wool growth and shearing was completed at 10 months of age with 10 months of wool growth.

Visual Trait Assessment and Site Breeding Objective

Visual trait assessment
Classer's Grade: Paul Cousins
Visual Trait Scores: Paul Cousins and Bill Walker

Site Breeding Objective used to assess the Visual Classer's Grades
The Breeding Objective used by the classer/s when selecting the Classers Tops, Flock and Cull grades is described below. The Breeding Objective for both measured and visual assessed traits was developed by the site committee in consultation with the classer prior to the grading.

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 mated at 18 months.

In regard to Classer's Visual Grades the expectation is at the start of grading that there will be a ratio of 25% Top, 50% Flock and 25% Cull. However, the sheep performance relative to the above breeding objective determines the final proportion allocated to each grade.

Sire Codes and Pedigrees

Sire Code	Breeders flock, Sire number	Sheep Genetics ID	Poll	Sire of Sire
1	Gelton Poll, 190140	601341-2019-190140	PH	Unknown
2	Glenville Poll, 220386	600711-2022-220386	PP	Ridgway Advance, 190448
3	Gunallo Poll, 220067	600880-2022-220067	PP	Mernowie, 200769
4	Kelvale Poll, 221415	600416-2022-221415	PH	Kelvale Poll, 201309
5	Malleetech Poll, 222357	609533-2022-222357	PP	Malleetech Poll, 199153
6	Pepper Well Poll, 222047	601351-2022-222047	PP	Kelvale, 200022
7	Pyramid Poll, 220220	601381-2022-220220	PP	Wiringa Park Poll, 200037
8	Richmond, 170013 (Link Sire)	505021-2017-170013	PH	Richmond, 130579
9	Trefusis Poll, 210106	601615-2021-210106	PH	Alfoxton Poll, 150459
10	Wiringa Park Poll, 220450	601445-2022-220450	PP	Wiringa Park Poll, 200037

Sire and Owner Contact Details

Breeders flock, Sire number Sire ID #	Contact Details
Gelton Poll, 190140 601341-2019-190140, Poll Merino	**Geoff Gellert** Mt Elliot , 805 Yarram Gap, Willaura VIC 3379 P: (03) 5354 1517, M: 0427 25 5220, E: geoffgellert@bigpond.com
Glenville Poll, 220386 600711-2022-220386, Poll Merino	**Klay Smith** 33 Range Rd, Cowell SA 5602 M: 0488 99 0791, E: glenville@activ8.net.au
Gunallo Poll, 220067 600880-2022-220067, Poll Merino	**Justin Boughen** 8521 Karoonda Highway, Sandlewood SA 5307 M: 0423 06 5513, E: boughenbros@gmail.com
Kelvale Poll, 221415 600416-2022-221415, Poll Merino	**Stephen Kellock** PO Box 304, Keith SA 5267 P: (08) 8755 1761, M: 0427 43 8138, E: admin@kelvalepollmerinos.com.au
Malleetech Poll, 222357 609533-2022-222357, Poll Merino	**David and Harley Smith** 976 Geranium South Road, Geranium SA 5301 M: 0427 85 7722, E: david@malleetech.com
Pepper Well Poll, 222047 601351-2022-222047, Poll Merino	**Hansi Graetz** PO Box 3, Keyneton SA 5353 M: 0427 790 676, E: pepperwell1@gmail.com
Pyramid Poll, 220220 601381-2022-220220, Poll Merino	**Joe and Tracey Dahlitz** PO Box 15, Cummins SA 5631 P: (08) 8676 4243, M: 0428 29 5706, E: roemahkita@bigpond.com
Richmond, 170013 (Link Sire) 505021-2017-170013, Merino	**Trevor Ryan** Richmond, Quandialla NSW 2721 M: 0437 15 3765, E: richmondmerino@gmail.com
Trefusis Poll, 210106 601615-2021-210106, Poll Merino	**Georgina and Hamish Wallace** 1929 Tooms Lake Road, Ross TAS 7209 P: (03) 6381 5320, M: 0438 98 6257, E: gawallace@trefusis.com.au
Wiringa Park Poll, 220450 601445-2022-220450, Poll Merino	**Allan Hobley** 1281 Nyabing South Road, Nyabing WA 6341 M: 0428 29 1097, E: wiringapark@yahoo.com.au

(Link) Sire evaluated to provide links between years and sites so that all site results can be combined into a single report, e.g. *Merino Superior Sires.*

Link sires are a vital sire evaluation component as they provide the 'genetic link' between sire evaluation sites located across Australia, allowing all sires entered to have their performance reported relative to each other in the annual Merino Superior Sires. An AMSEA link sire must have at least 25 progeny assessed at their 1st sire evaluation assessment.

The 16 digit Sire ID is a unique number for all sheep.
- 2 for the breed of the flock, e.g.Merino (50), Poll Merino (60), Dohne (51)
- 4 for flock code, AASMB Registered flock code or unregistered code.
- 4 for year of drop & 6 for tag# used in the breeder's records.

Manager's Report

Host Property and Ewe Base

Turretfield Research Centre, Rosedale are generously hosting the SA Merino Sire Evaluation Trial for the 2024 and 2025 drops. Run under the auspices of SARDI and PIRSA, the site receives an average 425mm rainfall in a winter dominant pattern. The Turretfield Research Centre ewe is purposely bred from Leahcim and Mernowie bloodlines to be highly fertile, plainer bodied, and they are a good expression of South Australian Merinos. They have a mature weight of 75-85kg and produce approximately 19 micron wool at 60% yield depending on the season. The ewes mated for the 2024 drop trial were sourced from a rising 3-4 year old age group and were classed prior to joining to ensure an even line. The Turretfield Research Centre is a non-mulesed site.

2024 Drop Summary

The site evaluated 10 rams including 2 link sires. 57 ewes were joined to each sire via AI on 30th of November and 1st of December 2023. The ewes were pregnancy scanned on the 29th of January 2024 with a resulting conception rate of 64% from the AI program. Interestingly, 57% of the pregnant ewes were scanned as carrying multiple foetuses. At this time, the ewes were running as 1 mob. Just prior to lambing, the ewes were further split into single-bearing mobs of 50 ewes, twin-bearing mobs of 50 ewes, as well as one mob of triplet-bearing ewes. The quadruplet-bearing ewes and single quint were removed from the trial at this stage. Ewes grazed dry pasture as well as being fed supplementary hay, grain and peas until weaning.

The first cohort of lambs born from the 10 rams occurred in late April. During lambing, daily checks were undertaken and all lambs that were deemed to be 24 hours old were weighed, sexed and tagged (when there was no negative impact on bonding). Lamb marking took place on the 21st of May 2024, with visual traits of fibre pigmentation, non-fibre pigmentation, recessive black, random spot, breech cover and breech wrinkle recorded. Sire pedigree was established by DNA testing. There were 442 progenies generated across the 10 rams. The average marking breech cover was visually assessed as 3.25 (from a range of 1-5, as per the Visual Sheep Scores publication), and the average marking breech wrinkle was visually assessed as 1.75 (from a range of 1-5, as per the Visual Sheep Scores publication). Following lamb marking, lambing mobs were kept in the same lambing mobs until weaning. At lamb marking the lambs were treated with BUTEC, GlanEry 7in1 B12 and CliK to the docking site and purses.

Progeny were weaned at 12 weeks of age on 23rd of July, at which time they were also drenched and vaccinated with GlanEry 7in1 B12. Weaning weights were assessed, with an average weaning weight of 19.4kg live weight. Progeny then ran together on grass-based pasture in one mob. Supplementary feeding continued until the 19th of August 2024; lambs fed on a barley and grass mix pasture. Supplementary feeding restarted on the 21st of October 2024 and has continued due to dry conditions.

The progeny was crutched in October 2024 with dag and crutch cover scored. In November the progeny received an application of CliK on the breech and backline as fly control. On the 1st of March 2025 visual classing was undertaken with the following traits recorded;

- 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, random spot, face cover, jaw, hocks, front legs, pasterns, front toes, back toes and Classer's Visual Grade.

The progeny were shorn on the 2nd of March 2025 2025 with greasy fleece weight measured. In early March 2025, post shearing visual classing traits of shoulder/back, body wrinkle, breech cover, breech wrinkle and random spot were recorded, and an off-shears weight was taken. Carcase scanning and weight of the progeny was undertaken on the 26th of March 2025. At this stage the progeny was split into sex groups and ran as two mobs. Once 85% of the wether portion reaches 50+kgs, a selected portion of the wether component will be assessed for their Meat Eating Quality traits.

The remaining ewe component of the 2024 Drop will be taken through to their adult assessments in March 2026, 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.

Gary Grigson
Turretfield Research Centre
Rosedale, South Australia

Assessment and Management Program

Activity	Date/s	Age	Wool
Selection of ewes	October 11, 2023		
Allocation of ewes for mating	November 30 - December 1, 2023		
AI program	November 30 - December 1, 2023		
Pregnancy scanning	January 29, 2024		
Allocated to lambing paddocks	April 10, 2024		
Lambing: start – finish	April 24 - May 6, 2024		
Marking, tagging, pigmentation and breech scoring	May 21, 2024	3 weeks	
Lambing mobs boxed into a single management group	July 23, 2024	12 weeks	
Weaning	July 23, 2024	12 weeks	
Even Up Shearing	-		
Worm egg count (Y)	Not collected; minimum measurement threshold not reached.		
Crutching	October 3, 2024	5 months	5 months
Fat and eye muscle scanning (Y)	March 26, 2025	11 months	
Mid side fleece sampling (Y)	March 1, 2025	10 months	10 months
Visual trait scoring (Y)	March 1, 2025	10 months	10 months
Shearing (Y)	March 2, 2025	10 months	10 months
Body weight (W) **Body weight (P)** **Body Weight (Y)**	July 23, 2024 November 12, 2024 March 26, 2025	12 weeks 6 months 11 months	
Supplementary Feeding	Supplementary feeding continued until the 19th of August 2024; lambs fed on a barley and grass mix pasture. Supplementary feeding restarted on the 21st of October 2024 and has continued due to dry conditions.		
Drench	July 2,3 2024 and February 26, 2025		
Fly treatment	February 26, 2025. Spinolab on breech and backline		
Field day or public display	June 6, 2025		

Explaining the Different Types of Results Reported

Raw Data » **Adjusted Sire Means** » **Flock Breeding Values**

Merino Sire Evaluation produces a variety of result types which are all connected. The types of data produced include **Raw Data**, **Adjusted Sire Means**, **Flock Breeding Values** and **Indexes**. Initial measurements taken during sire evaluation assessments are used as the first level of results (Raw Data), then adjustments are made to increase the selection accuracy and better enable the comparison of results and sires (Adjusted Sire Means and Flock Breeding Values and Indexes).

Generally, AMSEA publishes **Adjusted Sire Means**, **Flock Breeding Values** and **Indexes** in Site Reports as they offer a higher level of accuracy**.** Visual Traits were historically reported as **Raw Data**, however Adjusted Sire Means are now available for these traits and visual traits will now be presented in this format.

Raw Data

Raw data; unadjusted results as measured in the yard, paddock or wool testing facility.

Adjusted Sire Means

These are raw data results that have been adjusted for the effect of sex, birth type/rear type, age of dam, dam source, age at measurement, the number of progeny a sire has and management group(s).

Flock Breeding Values (FBVs)

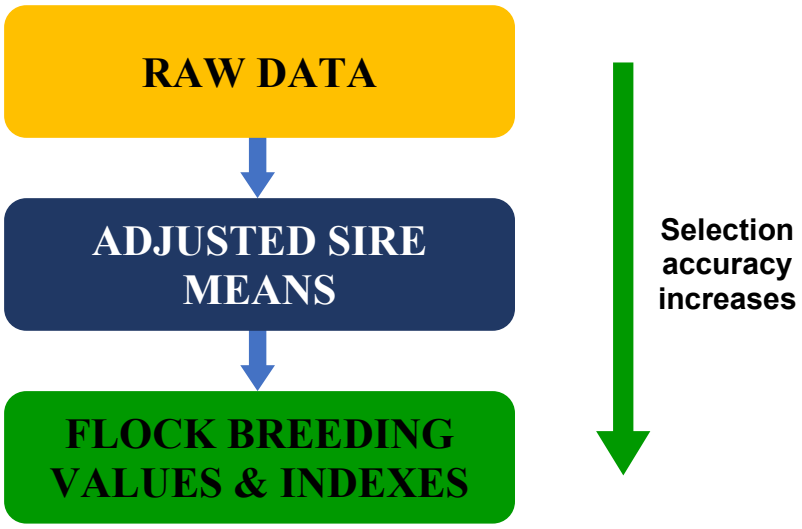
These results have been adjusted in the same way as Adjusted Sire Means, then further calculations have also been made to account for the level of heritability of a trait (some are more heritable than others) and correlations between traits.

FBVs are within site and within drop. As such they do not include data from other sources as is the case with Australian Sheep Breeding Values (ASBVs), which are reported in Merino Superior Sires.

Indexes

A breeding index is the combination of breeding values into a single value that reflects a certain emphasis on those traits.

For more information about each Index see the page in this report titled ‘Index Options’.



Understanding the Results - Classer's Visual Grade & Visual Traits				
Breeders flock, Sire number:	Identity of the breeder's flock and the sire's number or name.			
Number of progeny:	The number of progeny a sire had at weaning. Average number of progeny is included.			
Trait Leaders:	The highest performing sires for each trait (trait leaders) are highlighted by shading. Curvature is the possible exception when for many breeders the optimum score is in the middle of the range therefore trait leaders have not been highlighted.			
Age at assessment:	M	Marking - 14 to 39 days (2 to 6 weeks)	Y	Yearling - 300 to 449 days (10 to 15 months)
	W	Weaning - 40 to 149 days (6 weeks to 5 months)	H	Hogget - 450 to 659 days (15 to 22 months)
	P	Post Weaning - 150 to 299 days (5 to 10 months)	A	Adult - 660 days or older (22 months or older)
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. 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. More detail on who completed the Visual Grade Classing/Scoring and the site's Breeding Objective is available earlier in this report.			
Visual Traits:	The following description of trait scores is a summary of the detailed word and diagrammatical description of these scores in Version 4 (2024) of the Visual Sheep Scores booklet that is available free from AWI or at *www.merinosuperiorsires.com.au*. For the majority of breeding objectives a lower score would be considered favourable and a large difference below the average performance is preferable. Staple structure and Face are the possible exceptions when for many breeders the optimum score is in the middle of the range therefore trait leaders are not highlighted. Visual traits are 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. A selection of visual traits are also reported as **Flock Breeding Values (FBVs).** Results which 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 association between traits, the heritability of the trait, and non-genetic affects such as birth and rear type, sex (see adjustments listed earlier), and the number of progeny a sire has in the analysis. FBVs are calculated using all measured assessments up to the stage which is reported.			

Fleece rot:	FLROT	The severity of fleece rot from **1** (no fleece rot), **2 and 3** (bands of bacterial staining but no crusting), and **4 and 5** (bands of crusty fleece rot).
Wool colour:	COL	Greasy wool colour scored from **1** (whitest) to **5** (yellow).
Wool character:	CHAR	Definition and variation of crimp between and along the staple scored from **1** (well defined and regular) to **5** (undefined and large variation).
Dust penetration:	DUST	Degree of dust penetration from 1 (only tip <6%) to 5 (71 to 100% of staple).
Staple weathering:	WEATH	The deterioration due to light and water from **1** (least, <6% of staple) to **5** (most, 71 to 100%) reflect the depth and degree of deterioration.
Staple structure:	SSTRC	The size and diameter of each staple from **1** (<6mm) to **5** (>30 mm).
Fibre pigmentation:	FPIG	The percentage of dark fibres on any part of the sheep from **1** (0 pigmented fibres at any site) to **5** (71 to 100% pigmented fibres at one or more sites). This trait does not include random spot or recessive black.
Non-fibre pigmentation:	SPIG	The percentage of pigmentation on the areas not shorn from **1** (0 pigmentation at any site) to **5** (71 to 100% pigmented area on one or more bare skin sites, **and/or** 71 to 100% of the total hoof area).
Recessive black:	BLACK	Recessive black is identified by relatively symmetrical markings on both sides of the face. There are two scores **1** (no recessive markings) and **5** (recessive markings). This trait does not include random spot or fibre pigmentation. Only the percentage of progeny for each sire who scored 5 are reported for Recessive black and Random spot.
Random spot:	SPOT	Random spot (spot) is identified by rounded wool or hair spot/s, not symmetrical. There are two scores **1** (no spot/s) and **5** (spot/s). If both sides of the face or body are spotted the sheep should be scored as a recessive black.
Jaw:	JAW	The alignment of the lower jaw and its teeth relative to the top jaw from **1** (very well aligned) to **5** (heavily undershot or overshot).
Hocks:	HOCK	Angulation of the hock joints in relation to the feet from **1** (square) to **5** (extreme angulation).
Front Legs:	FLEGS	Orientation of the front legs and feet from **1** (square) to **5** (extreme inward or outward orientation).
Pasterns:	PASTERN	Angulation of the pastern joint from **1** (no angulation) to **5** (extreme angulation).
Front Toes:	FTOES	Direction and degree of growth on the front toes from **1** (straight and normal) to **5** (long and opened or rolled over).
Back Toes:	BTOES	Direction and degree of growth on the back toes from **1** (straight and normal) to **5** (long and opened or rolled over).
Back/Shoulder:	BACK	Conformation of the back and shoulder from **1** (very square) to **5** (very dipped or high).
Face cover:	FACE	Wool cover on the face scored from **1** (open face) to **5** (fully covered face).

Body wrinkle:	BDWR	The degree of body wrinkle from **1** (no wrinkle) to **5** (extensive wrinkle).		
Neck wrinkle:	NKWR	The degree of neck wrinkle from **1** (no wrinkle) to **5** (extensive wrinkle).		
Breech wrinkle:	BRWR	Degree of wrinkle at the tail set and hind legs from **1** (nil) to **5** (extensive).		
Breech cover:	BCOV	Size of natural bare area around the breech from **1** (large) to **5** (no bare).		
Crutch cover:	CCOV	Size of natural bare area in the pubic and groin from **1** (large) to **5** (no bare).		
Dag:	DAG	Degree of dag adhering to the breech and legs from **1** (nil) to **5** (extensive).		
Urine:	URINE	Degree of urine stained wool in the breech area, including the hind legs from **1** (nil) to **5** (extensive).		
Visual Traits reported as Flock Breeding Values (FBVs):	EBRWR: EBCOV: ECOL: EFROT: ECHAR: EDAG:	Early Breech Wrinkle Early Breech Cover Early Wool Colour Early Fleece Rot Early Wool Character Early Dag	LBRWR: LBCOV: LCOL: LFROT: LCHAR: LDAG:	Late Breech Wrinkle Late Breech Cover Late Wool Colour Late Fleece Rot Late Wool Character Late Dag

Table 1. Adjusted Sire Means - 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.

Sire Code	Breeders flock, Sire number	Number of Progeny*	Classer's Visual Grade *Yearling* TOPS %	Classer's Visual Grade *Yearling* CULLS %
1	Gelton Poll, 190140	38	-2	-5
2	Glenville Poll, 220386	32	1	-8
3	Gunallo Poll, 220067	33	5	-1
4	Kelvale Poll, 221415	35	11	-11
5	Malleetech Poll, 222357	41	-13	2
6	Pepper Well Poll, 222047	38	-10	4
7	Pyramid Poll, 220220	33	-3	15
8	Richmond, 170013 (Link Sire)	39	-5	4
9	Trefusis Poll, 210106	45	-18	18
10	Wiringa Park Poll, 220450	31	34	-18
	Progeny group average	**37**	**18**	**27**

*Number of progeny is as at the Yearling classing event.

These Classer's Visual Grade were collected from both ewe and wether progeny of the sires and are reported as Adjusted Sire Means. Please see pages 8-10 for a full description of trait names and an explanation of Adjusted Sire Means.

Table 2. Adjusted Sire Means - Visual Traits - Wool Quality and Pigmentation

Sire Code	Breeders flock, Sire number	Number of Progeny	Wool Quality - *Yearling*					Pigmentation - *Marking*			
			FLROT	COL	CHAR	DUST	SSTRC	FPIG	SPIG	BLACK % Score 5	SPOT % Score 5
1	Gelton Poll, 190140	45	1.0	2.4	2.4	2.8	3.0	1.0	1.9	0	0
2	Glenville Poll, 220386	37	1.0	2.8	2.7	3.1	2.9	1.0	1.8	0	3
3	Gunallo Poll, 220067	41	1.0	2.3	2.2	2.8	2.8	1.0	1.7	0	2
4	Kelvale Poll, 221415	41	1.0	2.4	2.5	3.1	3.0	1.0	2.0	0	0
5	Malleetech Poll, 222357	52	1.0	3.0	3.1	3.1	2.8	1.0	1.9	0	2
6	Pepper Well Poll, 222047	47	1.0	3.4	2.9	3.1	2.6	1.0	2.0	0	2
7	Pyramid Poll, 220220	40	1.0	2.5	2.8	2.9	2.7	1.0	1.9	0	0
8	Richmond, 170013 (Link Sire)	49	1.0	2.7	2.7	3.0	3.1	1.0	1.9	0	2
9	Trefusis Poll, 210106	51	1.0	2.9	3.2	2.9	2.5	1.0	1.8	0	0
10	Wiringa Park Poll, 220450	36	1.0	2.6	2.4	2.9	3.1	1.0	1.8	0	0
	Progeny group average	**44**	**1.0**	**2.7**	**2.7**	**3.0**	**2.8**	**1.0**	**1.9**	**-**	**-**

These visual traits were collected from both ewe and wether progeny of the sires and are reported as Adjusted Sire Means.
Please see pages 8-10 for a full description of trait names and an explanation of Adjusted Sire Means.

Table 3. Adjusted Sire Means - Visual Traits - Conformation

Sire Code	Breeders flock, Sire number	Number of Progeny	Conformation - *Yearling*								
			JAW	BACK	FACE	BDWR	HOCK	FLEGS	PASTERN	FTOES	BTOES
1	Gelton Poll, 190140	45	1.1	1.1	2.4	1.8	1.7	1.0	1.1	1.3	1.3
2	Glenville Poll, 220386	37	1.0	1.0	2.5	1.5	1.6	1.0	1.4	1.3	1.2
3	Gunallo Poll, 220067	41	1.1	1.1	2.7	1.9	1.3	1.0	1.0	1.1	1.2
4	Kelvale Poll, 221415	41	1.0	1.1	2.4	1.6	1.5	1.0	1.2	1.2	1.1
5	Malleetech Poll, 222357	52	1.0	1.3	2.3	1.6	1.7	1.0	1.2	1.6	1.7
6	Pepper Well Poll, 222047	47	1.0	1.2	2.5	1.7	1.9	1.1	1.2	1.3	1.2
7	Pyramid Poll, 220220	40	1.0	1.1	2.6	1.7	1.3	1.0	1.2	1.7	1.9
8	Richmond, 170013 (Link Sire)	49	1.0	1.0	2.5	1.8	2.6	1.0	1.3	1.2	1.2
9	Trefusis Poll, 210106	51	1.1	1.0	2.7	1.8	1.5	1.0	1.3	1.3	1.2
10	Wiringa Park Poll, 220450	36	1.0	1.2	2.9	1.6	1.0	1.0	1.0	1.3	1.3
	Progeny group average	**44**	**1.0**	**1.1**	**2.6**	**1.7**	**1.6**	**1.0**	**1.2**	**1.3**	**1.3**

These visual traits were collected from both ewe and wether progeny of the sires and are reported as Adjusted Sire Means.
Please see pages 8-10 for a full description of trait names and an explanation of Adjusted Sire Means.

Table 4. Adjusted Sire Means - Visual Traits - Breech

Sire Code	Breeders flock, Sire number	Number of Progeny	Breech Visual Traits					
			BRWR	BCOV	CCOV	DAG	BRWR	BCOV
			Marking		*Post Weaning*		*Yearling*	
1	Gelton Poll, 190140	45	2.3	3.8	3.6	2.1	1.8	3.1
2	Glenville Poll, 220386	37	2.1	3.7	3.7	1.6	1.6	3.2
3	Gunallo Poll, 220067	41	2.2	3.9	3.9	1.7	2.0	3.4
4	Kelvale Poll, 221415	41	2.1	4.0	3.6	2.0	1.7	3.3
5	Malleetech Poll, 222357	52	2.1	3.8	3.5	1.5	1.7	3.2
6	Pepper Well Poll, 222047	47	2.1	3.9	3.9	3.4	1.4	3.3
7	Pyramid Poll, 220220	40	2.1	3.9	3.8	1.3	1.8	3.2
8	Richmond, 170013 (Link Sire)	49	2.1	3.9	3.4	1.8	1.8	3.1
9	Trefusis Poll, 210106	51	2.1	3.8	4.0	1.6	2.0	3.2
10	Wiringa Park Poll, 220450	36	2.1	4.0	3.8	1.9	1.6	3.2
	Progeny group average	**44**	**2.1**	**3.9**	**3.7**	**1.9**	**1.7**	**3.2**

These visual traits were collected from both ewe and wether progeny of the sires and are reported as Adjusted Sire Means.
Please see pages 8-10 for a full description of trait names and an explanation of Adjusted Sire Means.

Table 5. Flock Breeding Values – Visual Traits

Sire Code	Breeders flock, Sire number	Number of Progeny	Flock Breeding Values											
			EBWR	LBWR	EBCOV	LBCOV	ECOL	LCOL	EFROT	LFROT	ECHAR	LCHAR	EDAG	LDAG
1	Gelton Poll, 190140	45	0.35	0.01	0.00	-0.16	-0.52	-0.41	-0.27	-0.18	-0.44	-0.30	0.18	0.23
2	Glenville Poll, 220386	37	-0.10	-0.14	-0.35	-0.19	0.08	0.04	0.03	0.01	-0.09	-0.07	-0.22	-0.32
3	Gunallo Poll, 220067	41	0.35	0.48	0.07	0.36	-0.79	-0.70	-0.46	-0.22	-0.80	-0.71	-0.15	-0.15
4	Kelvale Poll, 221415	41	-0.13	-0.13	0.22	0.11	-0.55	-0.44	-0.33	-0.23	-0.40	-0.30	0.08	0.11
5	Malleetech Poll, 222357	52	-0.20	-0.20	-0.15	0.05	0.65	0.52	0.37	0.24	0.80	0.60	-0.28	-0.45
6	Pepper Well Poll, 222047	47	-0.16	-0.54	0.15	0.28	1.32	1.08	0.72	0.42	0.47	0.48	1.10	1.95
7	Pyramid Poll, 220220	40	0.03	0.14	-0.04	-0.05	-0.43	-0.35	-0.23	-0.12	0.03	-0.02	-0.45	-0.79
8	Richmond, 170013 (Link Sire)	49	-0.13	0.12	0.00	-0.33	0.01	0.05	0.02	0.01	0.02	0.02	-0.08	-0.21
9	Trefusis Poll, 210106	51	0.02	0.48	-0.11	-0.05	0.42	0.35	0.26	0.18	0.86	0.60	-0.27	-0.42
10	Wiringa Park Poll, 220450	36	-0.06	-0.22	0.20	-0.03	-0.18	-0.14	-0.09	-0.10	-0.45	-0.30	0.09	0.07

These Flock Breeding Values were calculated using both the ewe and wether progeny of the sires.
Please see page 8-10 for a full description of trait names and an explanation of Flock Breeding Values.

Understanding the Results - Measured Traits					
Breeders flock, Sire number:	Identity of the breeder's flock and the sire's number or name.				
Number of progeny:	The number of progeny a sire had at weaning. Average number of progeny is included.				
Trait Leaders:	The highest performing sires for each trait (trait leaders) are highlighted by shading. Curvature is the possible exception when for many breeders the optimum score is in the middle of the range therefore trait leaders have not been highlighted.				
Measured Traits: Abbreviation, trait and the (units reported)	Measured traits are those assessed via a standardised collection and testing process completed by an independent, accredited and recognised service provider. Measured traits include the following:				
	GFW: CFW: FD: FDCV: SL: SS: CURV:	Greasy fleece weight (percentage) Clean fleece weight (percentage) Fibre diameter (micron) Fibre diameter coefficient of variation (percentage) Staple length (mm) at the mid-side Staple strength (N/ktex) at the mid-side Fibre curvature (degrees)	WT: EMD: FAT: WEC:	Body weight (kilograms) Eye muscle depth (mm) at the 'C' site Fat depth (mm) at the 'C' site Worm egg count (% deviation in worm burden of sire's progeny)	
Age at assessment:	M W P	Marking - 14 to 39 days (2 to 6 weeks) Weaning - 40 to 149 days (6 weeks to 5 months) Post Weaning - 150 to 299 days (5 to 10 months)	Y H A	Yearling - 300 to 449 days (10 to 15 months) Hogget - 450 to 659 days (15 to 22 months) Adult - 660 days or older (22 months or older)	
Adjusted Sire Means	Sire means are the average performance of all the progeny of a sire adjusted for the progeny's birth type, rear type, age of dam, management group and the number of progeny a sire has in the analysis. Adjustments improve the accuracy of the result and adjustments are based on the actual influence of these factors on the drop. No account is made for trait heritability and genetic correlations between traits. The overall progeny group mean is also reported.				
Flock Breeding Values (FBVs)	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 association between traits, the heritability of the trait, and non-genetic affects such as birth and rear type, sex (see adjustments listed earlier), and the number of progeny a sire has in the analysis. FBVs are calculated using all measured assessments up to the stage which is reported. For more information: www.merinosuperiorsires.com.au/resources.				
Indexes	The indexes reported are based on measured traits FBV performance with varying emphasis on fleece weight, fibre diameter, body weight, staple strength and worm egg count. The indexes reported are the FW, WP, SM and ML. These indexes are the same as the MERINOSELECT indexes of that name but account for the fact that not all traits are currently collected as part of standard sire evaluation trials. Further information about Indexes is available earlier in this report and at www.merinosuperiorsires.com.au/resources.				

Table 6. Adjusted Sire Means - Wool

Sire Code	Breeders flock, Sire number	Number of Progeny	Adjusted Sire Means						
			GFW kg Y	CFW kg Y	FD µm Y	FDCV % Y	SL mm Y	SS N/ktex Y	CURV deg/mm Y
1	Gelton Poll, 190140	45	4.3	2.3	16.7	18.4	79.8	36.4	59.2
2	Glenville Poll, 220386	37	4.3	2.1	16.6	18.4	79.9	35.4	59.2
3	Gunallo Poll, 220067	41	4.1	2.3	16.0	18.7	79.2	36.7	54.1
4	Kelvale Poll, 221415	41	4.1	2.2	17.2	18.3	88.0	33.1	55.0
5	Malleetech Poll, 222357	52	4.1	2.0	17.1	18.4	79.3	31.6	67.5
6	Pepper Well Poll, 222047	47	3.9	2.1	16.3	18.0	85.0	32.6	58.3
7	Pyramid Poll, 220220	40	3.7	2.0	16.3	18.0	82.6	29.6	59.0
8	Richmond, 170013 (Link Sire)	49	4.0	2.2	16.8	17.5	86.9	35.8	58.3
9	Trefusis Poll, 210106	51	3.6	1.7	16.1	18.4	71.0	34.2	73.2
10	Wiringa Park Poll, 220450	36	4.3	2.5	17.1	18.0	86.5	40.5	56.9
	Progeny group average	**44**	**4.0** kg	**2.1** kg	**16.6** µm	**18.2** %	**81.6** mm	**34.5** N/ktex	**60.6** deg/mm

These Adjusted Sire Means were calculated using both the ewe and wether progeny of the sires.
Please see page 16 for a full description of trait names and an explanation of Flock Breeding Values.

Table 7. Adjusted Sire Means - Weight and Carcase

Sire Code	Breeders flock, Sire name	Number of Progeny	Adjusted Sire Means					
			WT kg				EMD mm	FAT mm
			B	W	P	Y	Y	Y
1	Gelton Poll, 190140	45	5.3	20.2	41.6	43.7	24.3	2.3
2	Glenville Poll, 220386	37	5.4	20.6	42.3	45.8	26.9	2.7
3	Gunallo Poll, 220067	41	5.2	20.3	39.1	41.4	24.7	2.4
4	Kelvale Poll, 221415	41	5.2	19.5	38.8	42.2	26.0	2.6
5	Malleetech Poll, 222357	52	5.0	19.1	40.3	44.9	27.1	2.8
6	Pepper Well Poll, 222047	47	4.8	20.5	39.1	43.2	27.2	2.5
7	Pyramid Poll, 220220	40	4.6	17.8	37.6	41.0	24.8	2.4
8	Richmond, 170013 (Link Sire)	49	4.9	19.0	39.2	43.1	26.1	2.8
9	Trefusis Poll, 210106	51	5.0	18.1	37.7	43.1	23.4	2.4
10	Wiringa Park Poll, 220450	36	5.0	19.5	38.9	41.9	25.7	2.4
	Progeny group average	**44**	**5.0**	**19.4**	**39.4**	**43.1**	**25.6**	**2.5**
				kg			mm	mm

These Adjusted Sire Means were calculated using both the ewe and wether progeny of the sires.
Please see page 16 for a full description of trait names and an explanation of Flock Breeding Values.

Table 8. Flock Breeding Values - Wool

Sire Code	Breeders flock, Sire number	Number of Progeny	Flock Breeding Values						
			GFW % Y	CFW % Y	FD µm Y	FDCV % Y	SL mm Y	SS N/ktex Y	CURV deg/mm Y
1	Gelton Poll, 190140	45	10	17	0.1	0.2	-3.9	3.3	-1.3
2	Glenville Poll, 220386	37	14	5	0.0	0.5	-1.5	-0.2	-1.4
3	Gunallo Poll, 220067	41	7	16	-1.1	1.1	-4.1	1.0	-9.7
4	Kelvale Poll, 221415	41	6	13	1.1	0.3	11.4	-2.6	-9.0
5	Malleetech Poll, 222357	52	-3	-24	0.9	0.0	-4.6	-1.2	12.0
6	Pepper Well Poll, 222047	47	-8	-12	-0.5	-0.4	5.7	-2.7	-2.4
7	Pyramid Poll, 220220	40	-16	-7	-0.5	-0.2	1.2	-7.9	-2.2
8	Richmond, 170013 (Link Sire)	49	-2	4	0.3	-1.2	8.6	2.1	-2.4
9	Trefusis Poll, 210106	51	-22	-44	-1.1	0.2	-18.7	-0.5	22.6
10	Wiringa Park Poll, 220450	36	14	32	0.8	-0.4	6.1	8.7	-6.0

These Flock Breeding Values were calculated using both the ewe and wether progeny of the sires.
Please see page 16 for a full description of trait names and an explanation of Flock Breeding Values.

Table 9. Flock Breeding Values - Weight, Carcase and WEC

Sire Code	Breeders flock, Sire number	Number of Progeny	Flock Breeding Values					
			WT kg			EMD mm	FAT mm	WEC %
			W	P	Y	Y	Y	
1	Gelton Poll, 190140	45	2.8	4.0	1.5	-2.4	-1.2	Worm Egg Count not yet recorded.
2	Glenville Poll, 220386	37	2.8	5.0	6.2	0.4	-0.5	
3	Gunallo Poll, 220067	41	0.8	-0.9	-4.1	-0.7	-0.5	
4	Kelvale Poll, 221415	41	0.6	-0.3	-1.1	1.1	0.5	
5	Malleetech Poll, 222357	52	-0.4	1.8	3.6	1.7	1.4	
6	Pepper Well Poll, 222047	47	1.5	-0.9	-0.6	2.5	-0.1	
7	Pyramid Poll, 220220	40	-3.9	-3.6	-3.6	-0.4	-0.2	
8	Richmond, 170013 (Link Sire)	49	-0.7	0.1	0.6	1.0	1.5	
9	Trefusis Poll, 210106	51	-2.7	-2.4	0.9	-3.8	-1.1	
10	Wiringa Park Poll, 220450	36	-0.7	-2.8	-3.3	0.6	0.1	

These Flock Breeding Values were calculated using both the ewe and wether progeny of the sires.
Please see page 16 for a full description of trait names and an explanation of Flock Breeding Values.

MERINOSELECT Indexes

A guide from Sheep Genetics

Why use a selection index?

Indexes are an important tool to drive genetic improvement in ram breeding programs. Each index combines multiple measured traits, or ASBVs, into a single value that reflects a certain production emphasis on these traits. A range of traits are included which are of economic or functional importance. Collectively, these traits make up the "breeding objective" of the index which aims to improve profitability in commercial sheep enterprises.

Indexes are useful because they balance genetic improvement appropriately across a range of traits with the emphasis of each individual trait determined by it's relative importance to a selection approach for a particular style of production system.

> **Appropriately designed indexes are central to the goal of breeding more profitable sheep.**

However, it is recommended that the performance of individual measured and visually assessed traits also be used in conjunction with indexes.

Choosing the right index

This report includes four indexes based on four commercial production systems, these are outlined in the figure below.

Fine Wool (FW) The majority of the income is from the wool clip, with a strong focus on reducing micron.	**Wool Production (WP)** The majority of the income is from the wool clip, with a strong focus on increasing wool production.
Sustainable Merino (SM) The majority of the income is from the wool clip, and sheepmeat production is balanced.	**Merino Lamb (ML)** The majority of the income is from sheepmeat production, particularly lambs, with some income from the adult ewe wool clip.

> **When selecting on these indexes the long-term responses will vary depending on the traits measured, available pedigree, use of genomics, flock structure and selection emphasis on the index.**

The changes in individual traits from using an index depend on the information you record in your flock. If you want to improve, or even just maintain a trait, you must record it to ensure breeding values are sufficiently accurate for the index to do its job.

For detailed explanations and further information on indexes visit:

www.sheepgenetics.org.au

Sheep Genetics have resources available for both ram breeders and ram buyers.

Table 10. AMSEA Indexes

The indexes reported are the FW, WP, SM and ML indexes. These indexes are the same as the MERINOSELECT indexes of that name but account for the fact that not all traits are currently collected as part of standard sire evaluation trials. Further information about Indexes is available earlier in this report and at www.merinosuperiorsires.com.au/resources. The average value for all indexes is 100.

Sire Code	Breeders flock, Sire number	Number of Progeny	AMSEA Index Values			
			Fine Wool	Wool Production	Sustainable Merino	Merino Lamb
1	Gelton Poll, 190140	45	127	133	109	111
2	Glenville Poll, 220386	37	115	120	115	109
3	Gunallo Poll, 220067	41	147	145	119	114
4	Kelvale Poll, 221415	41	105	111	110	108
5	Malleetech Poll, 222357	52	47	49	84	90
6	Pepper Well Poll, 222047	47	93	86	94	99
7	Pyramid Poll, 220220	40	74	69	86	88
8	Richmond, 170013 (Link Sire)	49	106	105	107	106
9	Trefusis Poll, 210106	51	31	22	48	60
10	Wiringa Park Poll, 220450	36	155	160	126	114

These indexes were calculated using both the ewe and wether progeny of the sires.
Please see page 21 for a description of the Indexes published.

Combined Measured Traits and Visual Performance

The following figures use the same sire codes as Table 2 to locate sire performance for a variety of trait combinations. The blue boxes describe the high and low performance quadrants of results for the traits, as does any text accompanying the figure.

Figure 1a. Combined measured traits (FW index) and combined visually assessed traits for the site objective.

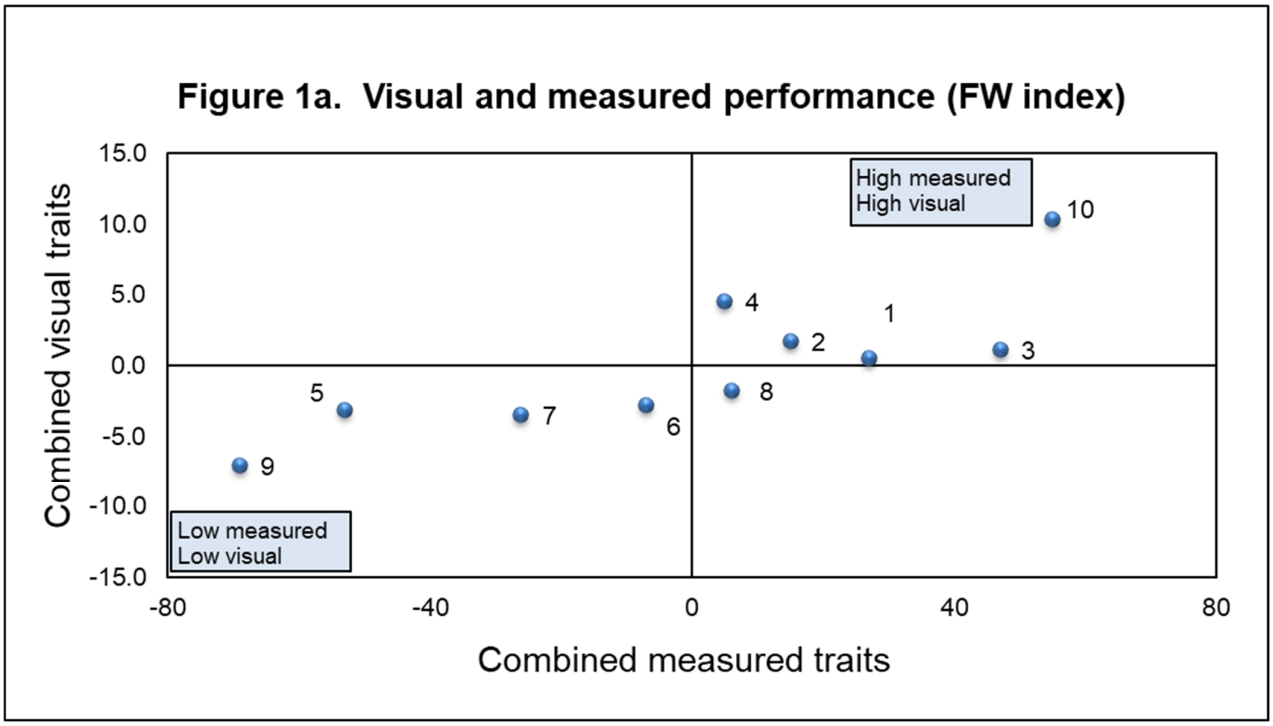
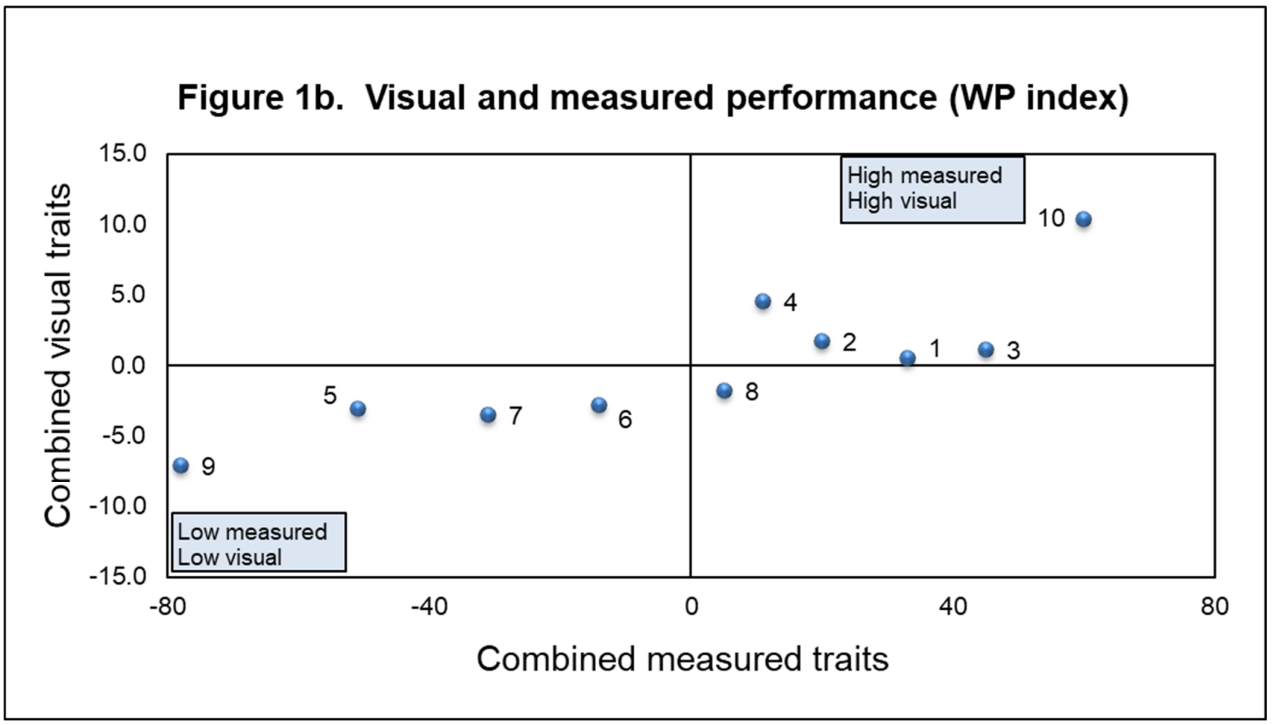


Figure 1b. Combined measured traits (WP index) and combined visually assessed traits for the site objective.



Combined visual traits are derived from Classer's Visual Grade via the following formula:
Tops% - Culls% / 5

Figure 1c. Combined measured traits (SM index) and combined visually assessed traits for the site objective.

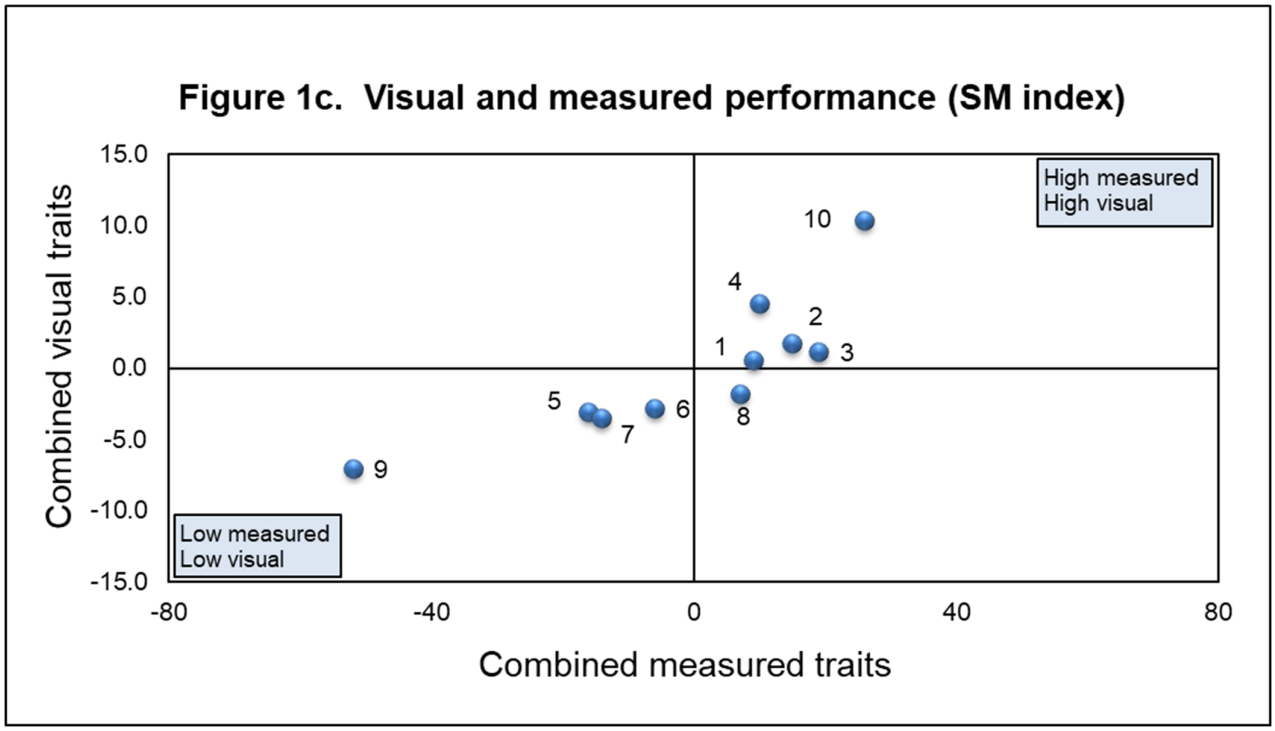
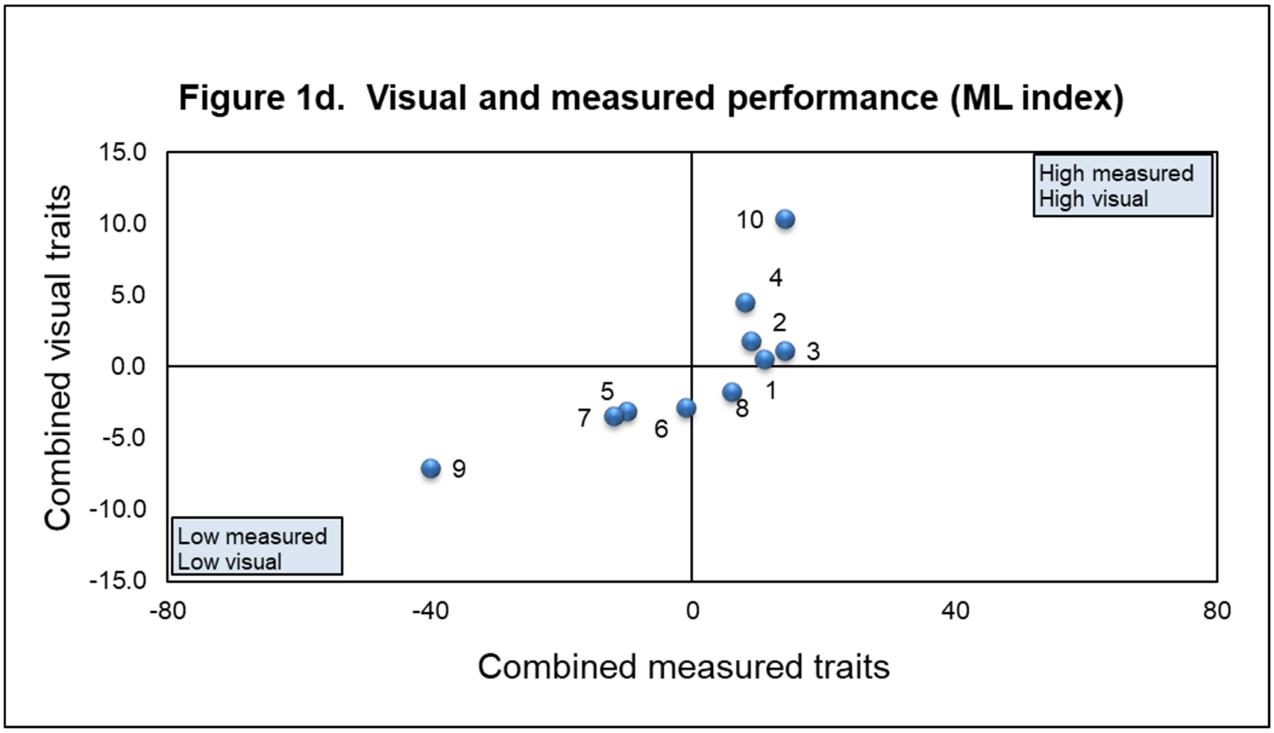


Figure 1d. Combined measured traits (ML index) and combined visually assessed traits for the site objective.

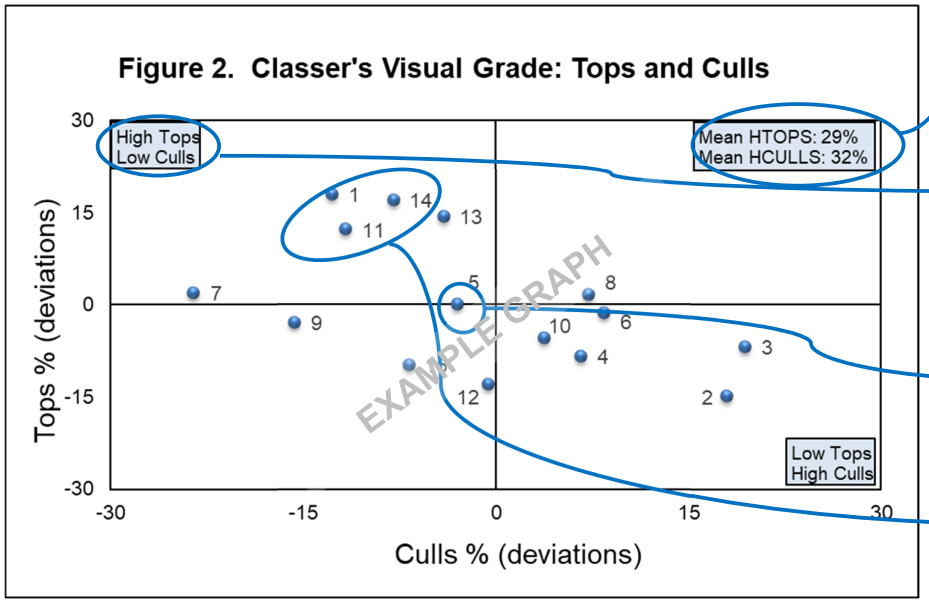


Combined visual traits are derived from Classer's Visual Grade via the following formula:
Tops% - Culls% / 5

Understanding the Results - Summary Graphs

The following quadrant graphs summarise sire results for trait combinations of particular interest to industry. Sire codes are as per Table 2. The blue boxes describe the high and low quadrants of results for the traits, generally placed within the highest performing and the lowest performing quadrants. Progeny group averages are also reported for the graphed traits. Further descriptions are included in the accompanying text.

Explanation of a quadrant graph:



Progeny group averages: in this instance for Tops / Culls.

For this figure, this top left quadrant reports the most favourable performance (High Tops and Low Culls). Different quadrants will be the most / least optimal for different trait combinations.

This sire is performing close to the progeny group average.

These sires are recorded in the extreme portion of the most optimal quadrant for this set of traits (Top / Culls).

Figure 2. Classer's Visual Grade - Tops and Culls

The graph describes performance for Classer's Visual Tops Grade on the side axis and Culls Grade on the bottom axis. Sires that have above average Tops and below average Culls are in the top left hand quarter.

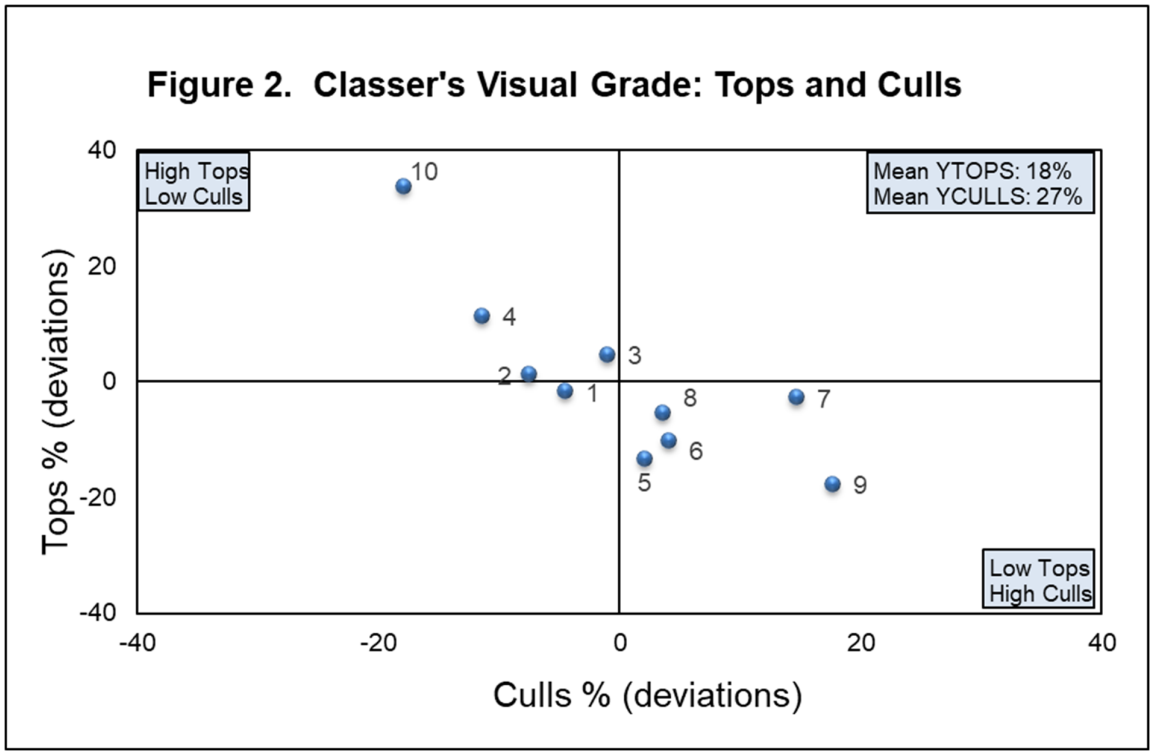


Figure 3. Fleece Weight and Fibre Diameter (FBVs)
The graph describes performance for clean fleece weight (CFW) on the side axis and fibre diameter (FD) on the bottom axis. Sires that are above average for fleece weight and below average fibre diameter are located in the top left hand quarter.

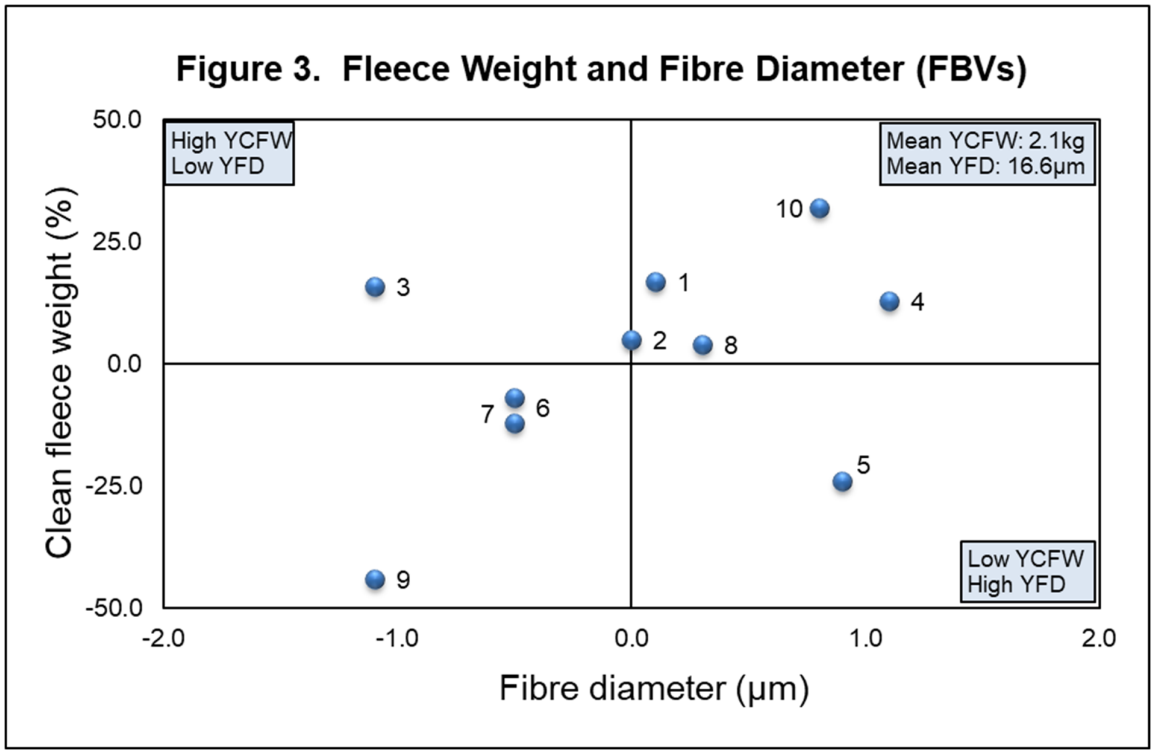


Figure 4. Fleece Weight and Staple Length (FBVs)
The graph describes performance for clean fleece weight (CFW) on the side axis and staple length (SL) on the bottom axis. Sires that are above average for fleece weight and above average for staple length are located in the top right hand quarter.

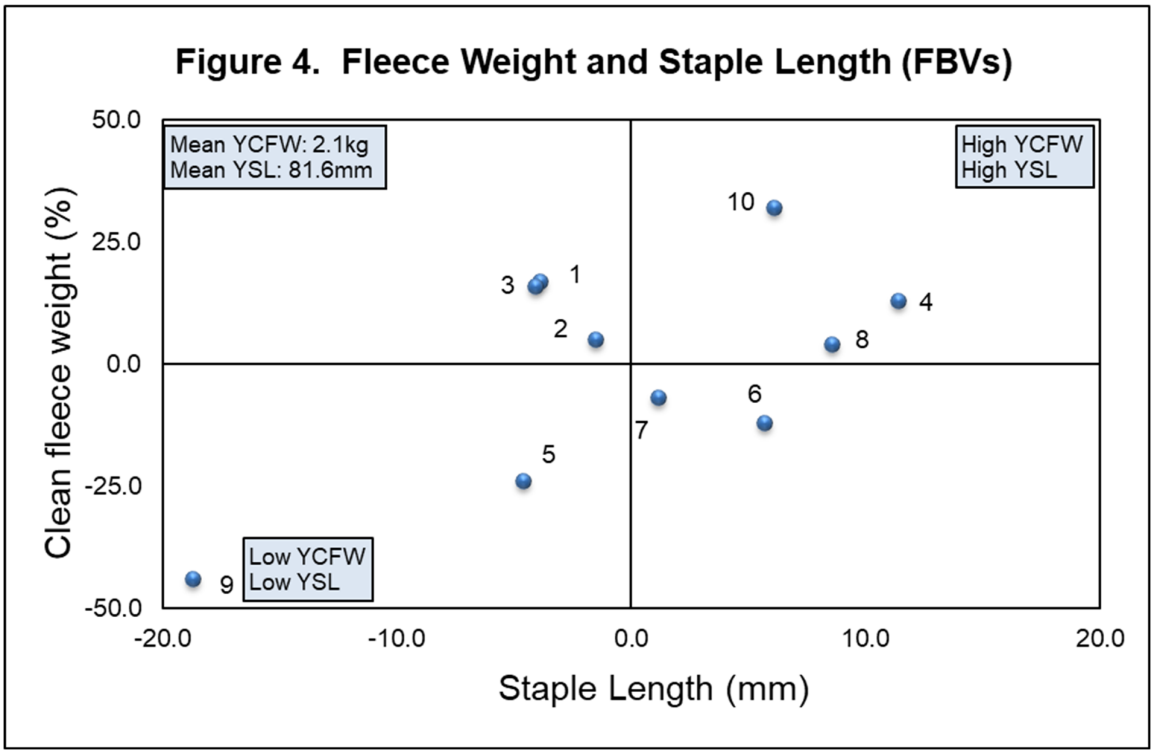


Figure 5. Fleece Weight and Body Weight (FBVs)
The graph describes performance for clean fleece weight (CFW) on the side axis and body weight (WT) on the bottom axis. Sires that are above average for fleece weight and above average for body weight are located in the top right hand quarter.

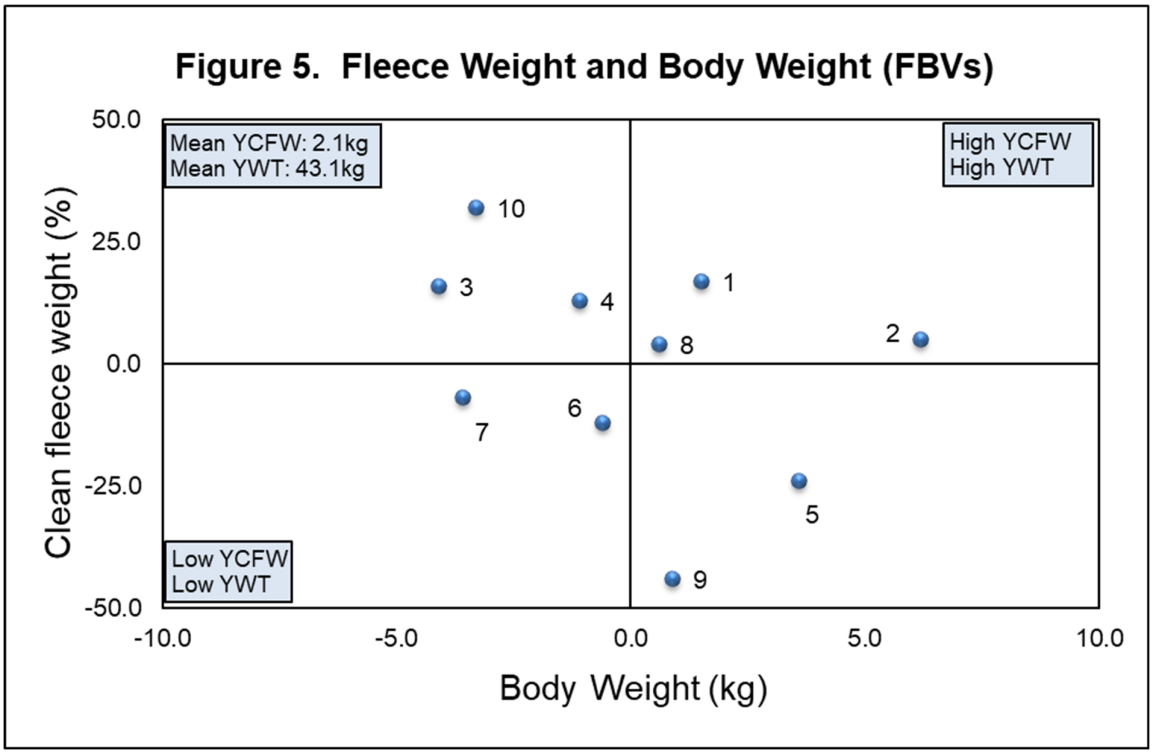


Figure 6. Fleece Weight and Fat (FBVs)
The graph describes performance for clean fleece weight (CFW) on the side axis and fat depth (FAT) on the bottom axis. Sires that are above average for fleece weight and above average for fat are located in the top right hand quarter.

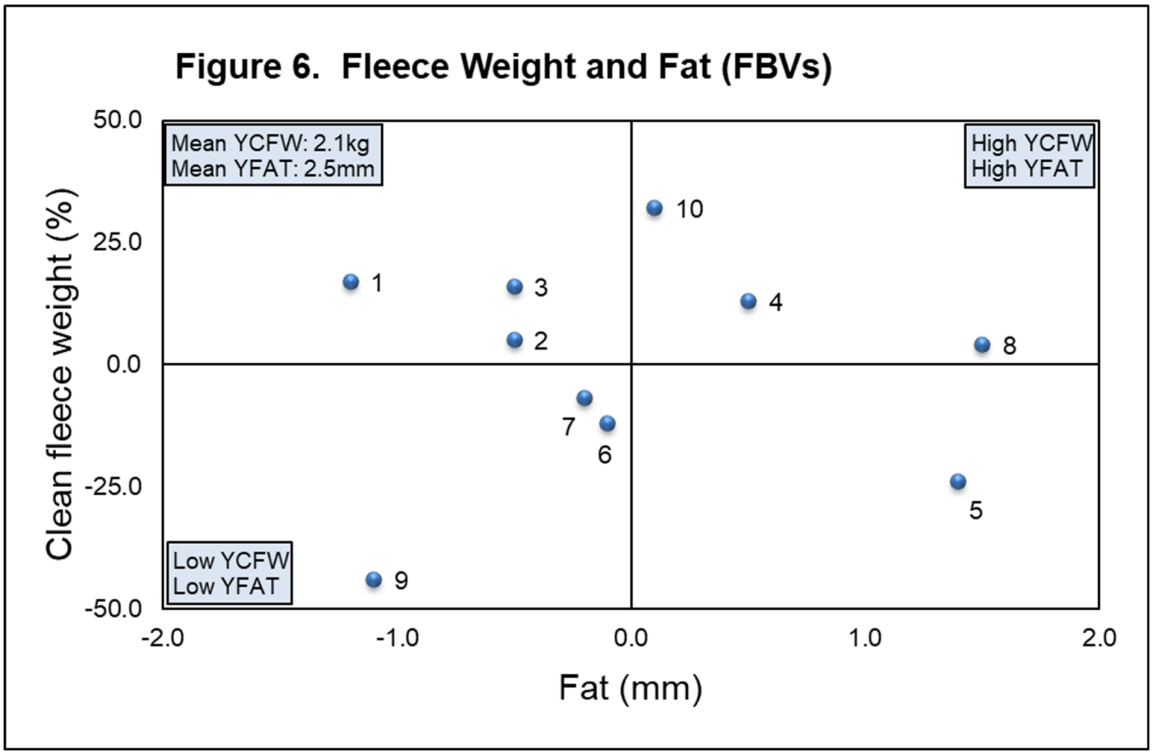


Figure 7. Fleece Weight and Eye Muscle Depth (FBVs)
The graph describes performance for clean fleece weight (CFW) on the side axis and eye muscle depth (EMD) on the bottom axis. Sires that are above average for fleece weight and above average for eye muscle depth are located in the top right hand quarter.

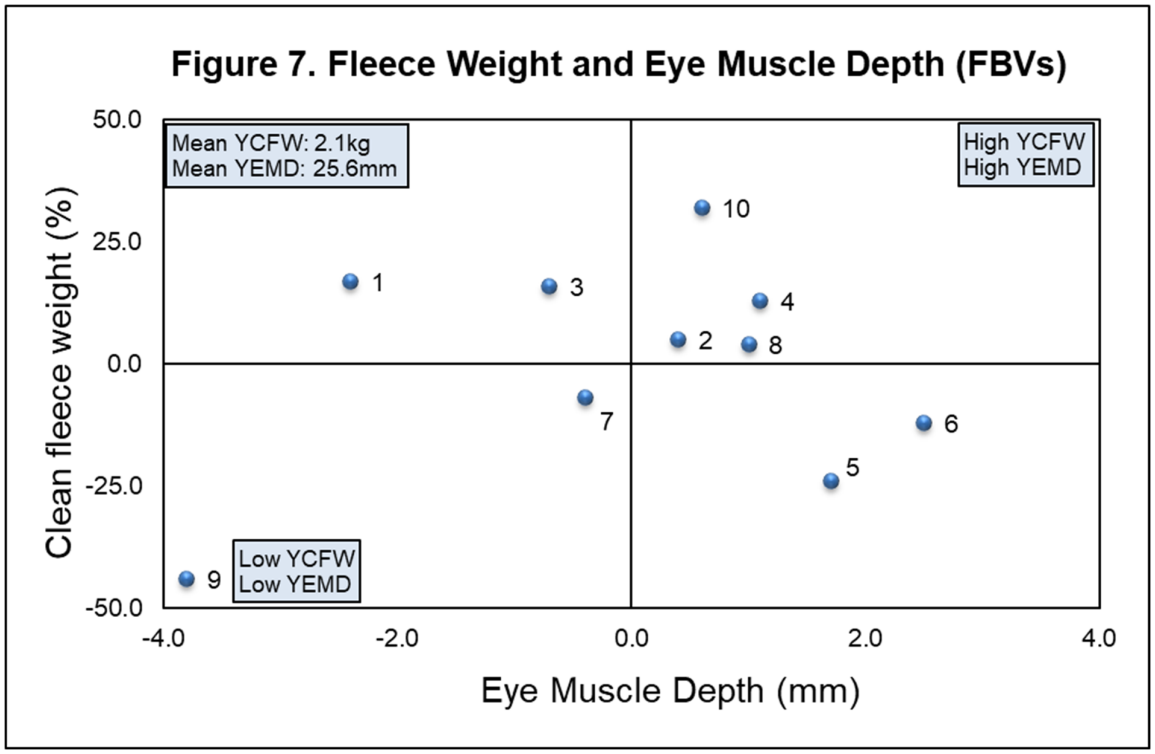


Figure 8. Fleece Weight and Breech Wrinkle (FBV)
The graph describes performance for clean fleece weight (CFW) on the side axis and breech wrinkle (BRWR) on the bottom axis. Sires that are above average for fleece weight and below average for breech wrinkle are located in the top left hand quarter.

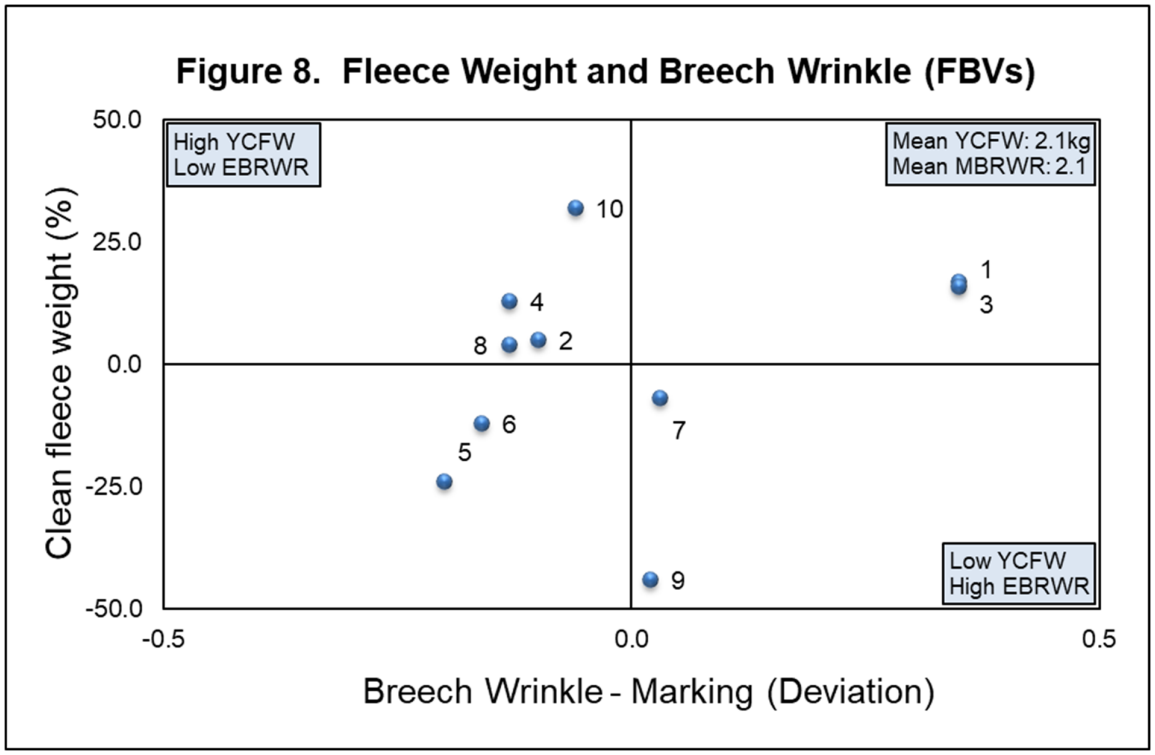


Figure 9. Body Weight and Eye Muscle Depth (FBVs)
The graph describes performance for body weight (WT) on the side axis and eye muscle depth (EMD) on the bottom axis. Sires that are above average for body weight and above average for eye muscle depth are located in the top right hand quarter.

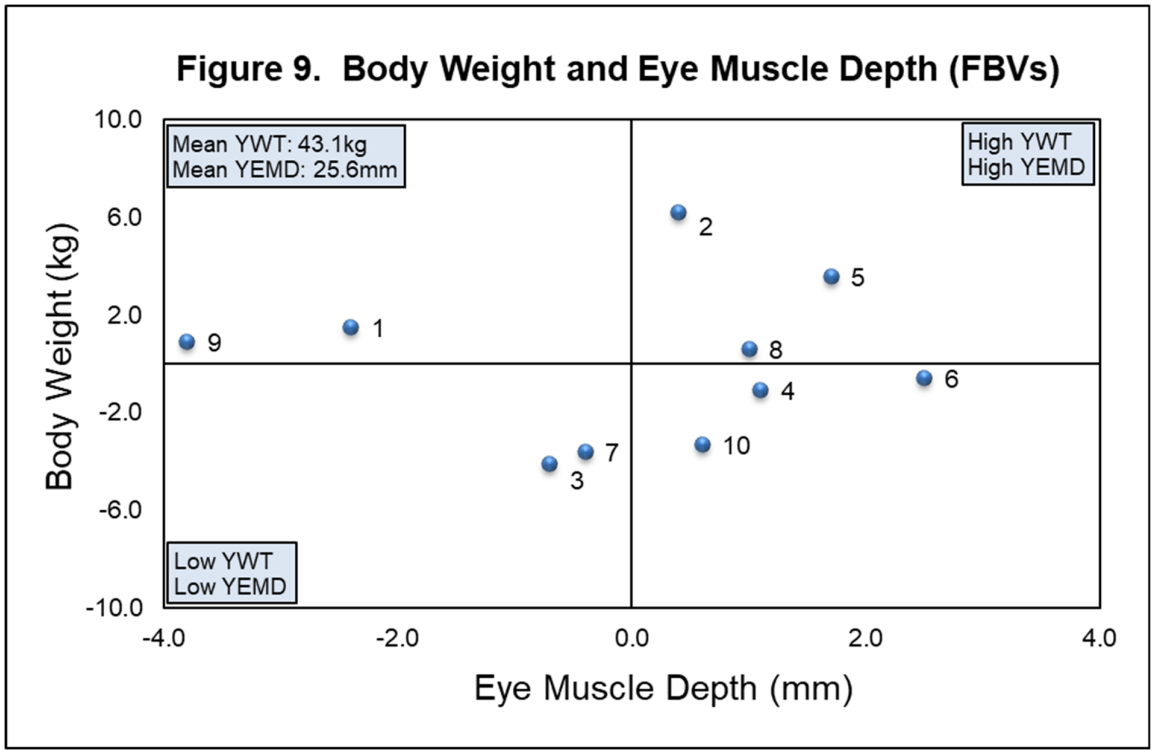


Figure 10. Staple Strength and Worm Egg Count (FBVs)
The graph describes performance for staple strength (SS) on the side axis and worm egg count (WEC) on the bottom axis. Sires that are above average for staple strength and below average for worm egg count are located in the top left hand quarter.

Worm Egg Count not yet recorded.

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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 who 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 Turretfield Research Centre, who importantly offered to be the host site for 2024 & 2025 drops for the SA Merino Sire Evaluation Trial, as well as contributing their own time in planning and labour.

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