

South Australia Merino Sire Evaluation Site Report

2022 Drop
Yearling and Adult Assessment

Within-Site Results
May 2024

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 carcass 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.

The Eckert family at Mentara Park generously hosted the 2021 and 2022 Drops of the SA Merino Sire Evaluation Trial. This follows Keyneton Station, Keyneton who hosted the 2017 and 2018 Drops, and the McMahan family at McPiggery Lameroo, who hosted the 2019 and 2020 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

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Disclaimer

Australian Merino Sire Evaluation Association Incorporated (AMSEA) is funded by Australian Wool Innovation Limited (AWI) which gratefully acknowledges the funds provided by the Australian Government to support research, development and marketing of Australian wool. AMSEA sponsors, woolgrower entry fees and site committee in-kind contributions also contribute to AMSEA funding. This publication should only be used as a general aid and is not a substitute for specific advice. To the extent permitted by law, AWI and AMSEA exclude all liability for loss or damage arising from the use of the information in this publication. © 2024 Australian Wool Innovation Limited and Australian Merino Sire Evaluation Association Incorporated. All rights reserved. The Australian Merino Sire Evaluation Association has approved the format used in this report.

2022 Drop Yearling and Adult Assessment

The information in this Site Report provides an update of the assessment of the 2022 drop, including the Yearling and Adult assessment of the sire's progeny performance for measured and visually assessed traits.

The Yearling midside assessments were completed at 12.5 months of age with 7.5 months of wool growth and shearing was completed at 13.5 months of age with 8.5 months of wool growth.

The Adult midside assessments were completed at 21.5 months of age with 8 months of wool growth and shearing was completed at 22.5 months of age with 9 months of wool growth.

Visual Trait Assessment and Site Breeding Objective

Visual trait assessment

Classer's Grade: Bill Walker

Visual Trait Scores: 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 carcass 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	Baderloo Poll, 200106	601270-2020-200106	PP	Baderloo Poll, 170080
2	Flairdale Poll, 190028	600015-2019-190028	PP	Flairdale Poll, 160224
3	Forest Springs Poll, 200102	601465-2020-200102	PP	Wallaloo Park Poll, 181491
4	Kelvale Poll, 200114	600416-2020-200114	PP	Kelvale Poll, 181298
5	Kiandra Poll, 200065	601138-2020-200065	PP	Wallaloo Park Poll, 180026
6	Loelmo Poll, 170602	600430-2017-170602	PP	Unknown
7	Malleetech Poll, 200119	609533-2020-200119	PP	Malleetech Poll, 155180
8	Miramoonna, 140012 (Link Sire)	503471-2014-140012	PH	Anderson, 120096
9	Mulloorie Poll, 160059 (Link Sire)	600793-2016-160059	PP	Unknown
10	O'Brien Poll, 201166	601470-2020-201166	PP	Ella Matta, 170274
11	Pepper Well Poll, 200145	601351-2020-200145	PH	Pepper Well Poll, 188187
12	Roemahkita Poll, 200058	601127-2020-200058	PP	Glenlea Park Poll, 180173
13	The Yanko, 190310	504694-2019-190310	PH	Collinsville Poll, 170521
14	Wallaloo Park Poll, 172223	601332-2017-172223	PP	Kamora Park Poll, 150029
15	Westwood Poll, 200215	601490-2020-200215	PP	Leahcim Poll, 182185
16	Willandra Poll, 170018	600610-2017-170018	PP	Wallaloo Park Poll, 150422

Sire and Owner Contact Details

Breeders flock, Sire number Sire ID #	Contact Details
Baderloo Poll, 200106 601270-2020-200106	Daniel Hammat 128 Baderloo Road, Washpool SA 5454 M: 0439 34 7362, E: daniel@baderloo.com.au
Flairdale Poll, 190028 600015-2019-190028	Wayne and Matt Lehmann PO Box 323, Taillem Bend SA 5260 P: (08) 8598 7006, M: 0408 89 6877, E: flairdale@internode.on.net
Forest Springs Poll, 200102 601465-2020-200102	Bruce Dean 96 Frampton Road, Joel Joel VIC 3384 M: 0407 05 4342, E: forestsprings@activ8.net.au
Kelvale Poll, 200114 600416-2020-200114	Stephen Kellock PO Box 304, Keith SA 5267 P: (08) 8755 1761, M: 0427 43 8138, E: admin@kelvalexpollmerinos.com.au
Kiandra Poll, 200065 601138-2020-200065	Ryan Kluska 4611 Emu Flat Road, Bordertown SA 5268 P: (08) 8754 2030, M: 0428 86 2040, E: kluska@activ8.net.au
Lorelmo Poll, 170602 600430-2017-170602	Edward Cordingley 'Topdale', 288 Quarry Road, Walcha NSW 2354 M: 0429 48 6380, E: eddy@lorelmo.com.au
Malleetech Poll, 200119 609533-2020-200119	David and Harley Smith 976 Geranium South Road, Geranium SA 5301 M: 0427 85 7722, E: david@malleetech.com
Miramoonna, 140012 (Link Sire) 503471-2014-140012	Kim Barnet Miramoonna, Walcha NSW 2354 P: (02) 6777 2885, M: 0429 77 2885, E: barnet@miramoonna.com
Mulloorie Poll, 160059 (Link Sire) 600793-2016-160059	Peter and Paul Meyer PO Box 45, Brinkworth SA 5464 P: (08) 8846 2077, M: 0408 08 9669, E: mulloorie@activ8.net.au
O'Brien Poll, 201166 601470-2020-201166	Darren O'Brien PO Box 310, Wudinna SA 5652 P: (08) 8681 2019, M: 0419 77 2173, E: dobandjodie@gmail.com
Pepper Well Poll, 200145 601351-2020-200145	Hansi Graetz PO Box 3, Keyneton SA 5353 M: 0427 79 0676, E: pepperwell1@gmail.com
Roemahkita Poll, 200058 601127-2020-200058	Joe and Tracey Dahlitz PO Box 15, Cummins SA 5631 P: (08) 8676 4243, M: 0428 29 5706, E: roemahkita@bigpond.com
The Yanko, 190310 504694-2019-190310	Hugh, Heather and Ian Cameron The Yanko, Jerilderie NSW 2716 P: (02) 6956 1142, M: 0427 56 1140, E: theyanko@bigpond.com
Wallaloo Park Poll, 172223 601332-2017-172223	Trent Carter 80 Bolangum Inn Road, Marnoo VIC 3387 M: 0427 77 6114, E: trent_carter@hotmail.com
Westwood Poll, 200215 601490-2020-200215	Scott Welke RMB 9146 Cascade Rd, Esperance WA 6450 M: 0427 79 2044, E: scott@westwoodfarms.net.au
Willandra Poll, 170018 600610-2017-170018	Ross Wells Willandra, 477 North Coree Rd, Jerilderie NSW 2716 P: (03) 5886 1223, M: 0428 86 1605, E: willandramerinos@gmail.com

(Link Sire) 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

The Eckert family at Mentara Park, Malinong generously hosted both the 2021 and 2022 Drops of the SA Merino Sire Evaluation Trial. Mentara Park receives an average of 425mm of 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 19 micron wool at 65-70% yield depending on the season. The ewes mated for the 2022 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.

2022 Drop Summary

The site evaluated 16 entered rams including 2 link sires. 57 ewes were joined to each sire via AI in mid-December 2021 over two days. The ewes were pregnancy scanned with a resulting conception rate of 64% from the AI program. Interestingly, 65% of the pregnant ewes were scanned as carrying multiple fetuses. 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 100 ewes, twin-bearing mobs of 60 ewes, as well as one mob of triplet-bearing ewes and one small mob of quadruplet-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 on 6 May 2022.

The first cohort of lambs born from the 16 rams occurred in mid-May 2022. Lamb marking took place on 23 June 2022 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 825 progeny generated across the 16 rams. The average marking breech cover was visually assessed as 2.9 (from a range of 1-5, as per the Visual Sheep Scores publication), and the average marking breech wrinkle was visually assessed as 2.4 (from a range of 1-5, as per the Visual Sheep Scores publication). Following lamb marking, lambing mobs were boxed together to create one mob of singles and two mobs of twins and multiples. The ewes and lambs then grazed lucerne veldt based pastures and were supplementary fed a hay/grain ration through to two weeks post weaning.

Progeny were weaned at 13 weeks of age in mid-August 2022, at which time they were also drenched. Weaning weights were assessed, with an average weaning weight of 29.2kg live weight. Progeny then ran together on lucerne veldt grass based pasture in two mobs. Supplementary feeding ceased two weeks post weaning and has not been required since. Lambs were drenched at the beginning of October 2022. They were shorn in mid-October after many attempts were delayed due to rain, and then returned to grazing on ample lucerne veldt grass based pasture. Two weeks off-shears, the progeny were CLiKed to prevent body and breech strike due to high Spring rainfall. Mentara Park had a fantastic Spring 2022 with above average rainfall that went well into the summer period allowing good lucerne growth. Summer and Autumn 2023 rainfall was average with rain in early March promoting good pasture growth. Mentara Park has had useful amounts of rain since March to retain a green pick to graze. Thanks to the kind season, the progeny did not require supplementary feeding.

The progeny were pop-hole crutched in March 2023. On 10 March, carcass scanning traits Eye Muscle Depth and Fat were collected. The remaining major phenotyping was recorded on 1 June 2023 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 Classer's Visual Grade

Throughout May 2023 the progeny were given hay for roughage. Shearing was undertaken on 28 June 2023 with greasy fleece weight and post shearing visual traits shoulder/back and body wrinkle assessed. A post shearing body weight was collected early July before the wether component of the 2022 drop were sold on 12 July 2023. At this time, a selected portion of the wether component were assessed for their Meat Eating Quality traits.

The remaining ewe component continued to graze lucerne veldt based pasture through to adult shearing in April 2024. The progeny were split up into culls, flocks and tops for a 10 week mating period in late 2023 and were brought back together after this time. During the mating period, the progeny continued to graze the same lucerne veldt based pastures. Late Winter through to September 2023 saw average rainfall which then declined to below average rainfall from September through to December 2023. However good rains in December 2023 and January 2024 kicked on the lucerne veldt based pastures and the progeny did not run out of feed despite well below average rainfall from January 2024.

Final mid-side sampling and visual assessments occurred early March 2024 with adult shearing taking place early April 2024, at which time greasy fleece weight and post shearing visual traits were collected. An off-shears body weight was taken mid-April 2024, marking the completion of the 2022-drop trial. WEC was not collected as minimum testing thresholds were not reached.

David Eckert
Mentara Park
Malinong, South Australia

Assessment and Management Program

Activity	Date/s	Age	Wool
Selection of ewes	October 11, 2022		
Allocation of ewes for mating	December 15-16, 2022		
AI program	December 15-16, 2022		
Pregnancy scanning	February 21, 2022		
Allocated to lambing paddocks	February 21, 2022		
Lambing: start – finish	May 11 - May 19, 2022		
Lambing mobs boxed into a single management group	June 23, 2022	5 weeks	
Marking, tagging, pigmentation and breech scoring	June 23, 2022	5 weeks	
Weaning	August 16, 2022	3 months	
Even Up Shearing	October 15, 2022	5 months	
Crutching	March 1, 2023	9.5 months	4.5 months
Fat and eye muscle scanning (Y)	March 10, 2023	10 months	
Mid side fleece sampling (Y)	June 1, 2023	12.5 months	7.5 months
Mid side fleece sampling (A)	March 6, 2024	22 months	8.5 months
Visual trait scoring (Y)	June 1, 2023	12.5 months	7.5 months
Visual trait scoring (A)	March 6, 2024	22 months	8.5 months
Shearing (Y)	June 28, 2023	13.5 months	8.5 months
Shearing (A)	April 4, 2024	22.5 months	9 months
Body weight (W)	August 16, 2022	3 months	
Body weight (Y)	March 10, 2023	10 months	
Body Weight (H)	August 15, 2023	15 months	
Body Weight (A)	April 16, 2024	23 months	
Worm egg count (Y)	Not collected; minimum measurement threshold not reached.		
Vaccination	Lamb marking mid-June 2022 – GlanEry 7in1 B12 Weaning mid-August 2022 – GlanEry 7in1 B12 Booster mid-March 2024 - GlanEry 7in1 B12		
Drench	Weaning mid-August 2022 and tip-shearing early October 2022 No drench in 2023 Triguard at shearing early April 2024		
Fly treatment	Late October 2022. CliKed on breech and down backline		
Field day or public display	June 23, 2023		

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)

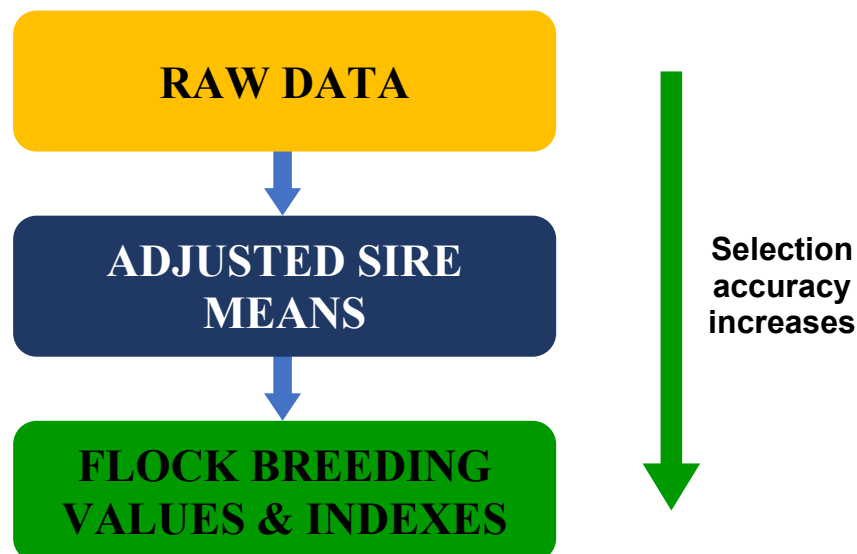
These results have been adjusted in the same way as Adjusted Sire Means, then further calculations have also been made to account for the level of heritability of a trait (some are more heritable than others) and correlations between traits.

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:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">M = Marking - 14 to 39 days (2 to 6 weeks)</td> <td style="width: 50%;">W = Weaning - 40 to 149 days (6 weeks to 5 months)</td> </tr> <tr> <td>P = Post Weaning - 150 to 299 days (5 to 10 months)</td> <td>Y = Yearling - 300 to 449 days (10 to 15 months)</td> </tr> <tr> <td>H = Hogget - 450 to 659 days (15 to 22 months)</td> <td>A = Adult - 660 days or older (22 months or older)</td> </tr> </table>	M = Marking - 14 to 39 days (2 to 6 weeks)	W = Weaning - 40 to 149 days (6 weeks to 5 months)	P = Post Weaning - 150 to 299 days (5 to 10 months)	Y = Yearling - 300 to 449 days (10 to 15 months)	H = Hogget - 450 to 659 days (15 to 22 months)	A = Adult - 660 days or older (22 months or older)
M = Marking - 14 to 39 days (2 to 6 weeks)	W = Weaning - 40 to 149 days (6 weeks to 5 months)						
P = Post Weaning - 150 to 299 days (5 to 10 months)	Y = Yearling - 300 to 449 days (10 to 15 months)						
H = Hogget - 450 to 659 days (15 to 22 months)	A = Adult - 660 days or older (22 months or older)						
Classer's Visual Grade:	<p>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.</p> <p>Classer's Visual Grade is reported as Adjusted Sire Means; Results which have been adjusted for made 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.</p> <p>More detail on who completed the Visual Grade Classing/Scoring and the site's Breeding Objective is available earlier in this report.</p>						
Visual Traits:	<p>The following description of trait scores is a summary of the detailed word and diagrammatical description of these scores in Version 3 (2019) of the Visual Sheep Scores booklet that is available free from AWI or at www.merinosuperiorsires.com.au.</p> <p>For the majority of breeding objectives a lower score would be considered favourable and a large difference below the average performance is preferable. <i>Staple structure</i>, <i>Jaw</i> and <i>Face</i> are the possible exceptions when for many breeders the optimum score is in the middle of the range therefore trait leaders are not highlighted.</p> <p>Visual traits are reported as reported as Adjusted Sire Means; Results which have been adjusted for made 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.</p>						
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).
Feet/Legs:	LEGS - Conformation of feet and legs scored from 1 (very straight) to 5 (very angulated).
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).
Breech cover:	BCOV - Size of natural bare area around the breech from 1 (large) to 5 (no bare).
Breech wrinkle:	BRWR - Degree of wrinkle at the tail set and hind legs from 1 (nil) to 5 (extensive).
Dag:	DAG - Degree of dag adhering to the breech and legs from 1 (nil) to 5 (extensive).
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).

Table 1. 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.

Sire Code	Breeder's flock, Sire number	Number of Progeny*	Classer's Visual Grade			
			Yearling		Adult	
			TOPS %	CULLS %	TOPS %	CULLS %
1	Baderloo Poll, 200106	12	-18	12	0	5
2	Flairdale Poll, 190028	16	-6	6	-5	-7
3	Forest Springs Poll, 200102	29	9	-14	6	-20
4	Kelvale Poll, 200114	36	22	-16	31	-3
5	Kiandra Poll, 200065	20	19	-22	17	-20
6	Lorelmo Poll, 170602	15	-11	17	-8	21
7	Malleetech Poll, 200119	24	-11	20	-12	18
8	Miramoonna, 140012 (Link Sire)	22	24	-10	15	-15
9	Mulloorie Poll, 160059 (Link Sire)	35	-17	28	-18	29
10	O'Brien Poll, 201166	22	-6	0	12	-2
11	Pepper Well Poll, 200145	29	11	-20	0	-10
12	Roemahkita Poll, 200058	12	-17	16	-27	14
13	The Yanko, 190310	28	-5	10	-7	16
14	Wallaloo Park Poll, 172223	23	5	-13	-10	-6
15	Westwood Poll, 200215	29	-3	-17	-3	-6
16	Willandra Poll, 170018	16	4	2	9	-15
Progeny group average		23	27	26	23	20

* Number of progeny is as at the Adult ewe classing event.

Yearling grades were collected from both the ewe and wether progeny. Only the ewe progeny were classed as Adults.

Table 2. Visual Traits - Wool Quality and Pigmentation

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.

Sire Code	Breeder's flock, Sire number	Number of Progeny*	Wool Quality - Adult					Pigmentation - Marking			
			FLROT	COL	CHAR	DUST	SSTRC	FPIG	SPIG	BLACK % Score 5	SPOT % Score 5
1	Baderloo Poll, 200106	12	1.1	2.9	2.0	2.4	2.7	1.1	1.9	0	0
2	Flairdale Poll, 190028	16	1.2	3.0	2.1	2.1	3.2	1.6	2.1	6	0
3	Forest Springs Poll, 200102	29	1.0	2.3	2.1	2.2	2.9	1.0	1.4	0	0
4	Kelvale Poll, 200114	36	1.1	2.6	1.6	2.8	2.9	1.0	1.6	0	0
5	Kiandra Poll, 200065	20	1.1	2.5	2.0	2.3	3.2	1.1	1.9	0	2
6	Loelmo Poll, 170602	15	1.8	2.6	2.4	1.9	3.7	1.0	1.7	0	0
7	Malleetech Poll, 200119	24	1.1	2.8	3.1	2.3	3.1	1.1	1.8	0	0
8	Miramoonna, 140012 (Link Sire)	22	1.1	2.0	2.9	2.3	3.1	1.1	1.9	0	0
9	Mulloorie Poll, 160059 (Link Sire)	35	1.6	2.9	2.8	2.1	4.0	1.0	1.4	0	0
10	O'Brien Poll, 201166	22	1.2	2.7	1.7	2.3	3.0	1.0	1.8	0	0
11	Pepper Well Poll, 200145	29	1.0	2.4	2.2	2.2	2.9	1.1	1.9	0	0
12	Roemahkita Poll, 200058	12	1.0	2.8	2.3	1.9	3.5	1.0	1.6	0	0
13	The Yanko, 190310	28	1.2	2.5	2.8	2.3	3.2	1.0	1.4	0	0
14	Wallaloo Park Poll, 172223	23	1.3	3.0	2.3	2.6	2.9	1.0	1.7	0	0
15	Westwood Poll, 200215	29	1.1	2.3	1.8	1.9	3.0	1.0	1.4	0	0
16	Willandra Poll, 170018	16	1.1	2.5	1.9	2.0	3.3	1.0	1.4	0	0
Progeny group average		23	1.2	2.6	2.3	2.2	3.2	1.1	1.7	-	-

* Number of progeny is as at the Adult ewe classing event.

Adult visual scores were collected from the ewe progeny only.

Table 3. Visual Traits - Conformation

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.

Sire Code	Breeder's flock, Sire number	Number of Progeny*	Conformation - Adult				
			JAW	LEGS	BACK	FACE	BDWR
1	Baderloo Poll, 200106	12	1.3	1.2	1.5	1.9	1.1
2	Flairdale Poll, 190028	16	1.1	1.1	1.0	2.4	1.1
3	Forest Springs Poll, 200102	29	1.0	1.1	1.0	2.4	1.0
4	Kelvale Poll, 200114	36	1.0	1.1	1.2	1.8	1.0
5	Kiandra Poll, 200065	20	1.0	1.1	1.0	1.7	1.1
6	Lorelmo Poll, 170602	15	1.0	1.4	1.1	2.7	1.6
7	Malleetech Poll, 200119	24	1.0	1.6	1.4	2.0	1.1
8	Miramoonna, 140012 (Link Sire)	22	1.0	1.1	1.2	2.8	1.1
9	Mulloorie Poll, 160059 (Link Sire)	35	1.0	1.4	1.1	2.8	1.2
10	O'Brien Poll, 201166	22	1.0	1.3	1.0	2.8	1.1
11	Pepper Well Poll, 200145	29	1.0	1.0	1.2	2.3	1.0
12	Roemahkita Poll, 200058	12	1.0	1.7	1.2	3.3	1.5
13	The Yanko, 190310	28	1.0	1.2	1.1	2.8	1.1
14	Wallaloo Park Poll, 172223	23	1.0	1.0	1.0	2.4	1.1
15	Westwood Poll, 200215	29	1.1	1.2	1.1	2.3	1.0
16	Willandra Poll, 170018	16	1.0	1.4	1.4	2.9	1.1
Progeny group average		23	1.0	1.2	1.1	2.4	1.1

* Number of progeny is as at the Adult ewe classing event.

Adult visual scores were collected from the ewe progeny only.

Table 4. Visual Traits - Breech

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.

Sire Code	Breeder's flock, Sire number	Number of Progeny	Breech	
			BCOV Marking	BRWR Marking
1	Baderloo Poll, 200106	37	3.2	2.4
2	Flairdale Poll, 190028	34	3.1	2.4
3	Forest Springs Poll, 200102	58	2.9	2.3
4	Kelvale Poll, 200114	64	3.0	2.1
5	Kiandra Poll, 200065	49	2.7	2.2
6	Lorelmo Poll, 170602	28	2.8	2.7
7	Malleetech Poll, 200119	61	2.7	2.5
8	Miramoonna, 140012 (Link Sire)	59	2.9	2.4
9	Mulloorie Poll, 160059 (Link Sire)	57	3.1	2.5
10	O'Brien Poll, 201166	43	3.1	2.4
11	Pepper Well Poll, 200145	68	2.8	2.4
12	Roemahkita Poll, 200058	34	3.2	2.7
13	The Yanko, 190310	61	3.2	2.4
14	Wallaloo Park Poll, 172223	55	3.0	2.5
15	Westwood Poll, 200215	48	2.9	2.8
16	Willandra Poll, 170018	45	2.5	2.4
	Progeny group average	50	2.9	2.4

These visual scores were collected from both ewe and wether progeny.

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.												
Traits: Abbreviation, trait and the (units reported)	<p>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:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">GFW: Greasy fleece weight (percentage)</td> <td style="width: 50%;">CFW: Clean fleece weight (percentage)</td> </tr> <tr> <td>FD: Average fibre diameter (micron)</td> <td>FDCV: Fibre diameter coefficient of variation (percentage)</td> </tr> <tr> <td>SL: Staple length (mm) at the mid-side</td> <td>SS: Staple strength (N/ktex) at the mid-side</td> </tr> <tr> <td>CURV: Fibre curvature (degrees)</td> <td>WT: Body weight (kilograms)</td> </tr> <tr> <td>EMD: Eye muscle depth (mm) at the 'C' site</td> <td>FAT: Fat depth (mm) at the 'C' site</td> </tr> <tr> <td>WEC: Worm egg count (% deviation in worm burden of sire's progeny)</td> <td></td> </tr> </table>	GFW: Greasy fleece weight (percentage)	CFW: Clean fleece weight (percentage)	FD: Average fibre diameter (micron)	FDCV: Fibre diameter coefficient of variation (percentage)	SL: Staple length (mm) at the mid-side	SS: Staple strength (N/ktex) at the mid-side	CURV: Fibre curvature (degrees)	WT: Body weight (kilograms)	EMD: Eye muscle depth (mm) at the 'C' site	FAT: Fat depth (mm) at the 'C' site	WEC: Worm egg count (% deviation in worm burden of sire's progeny)	
GFW: Greasy fleece weight (percentage)	CFW: Clean fleece weight (percentage)												
FD: Average fibre diameter (micron)	FDCV: Fibre diameter coefficient of variation (percentage)												
SL: Staple length (mm) at the mid-side	SS: Staple strength (N/ktex) at the mid-side												
CURV: Fibre curvature (degrees)	WT: Body weight (kilograms)												
EMD: Eye muscle depth (mm) at the 'C' site	FAT: Fat depth (mm) at the 'C' site												
WEC: Worm egg count (% deviation in worm burden of sire's progeny)													
Age at assessment:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">M = Marking - 14 to 39 days (2 to 6 weeks)</td> <td style="width: 50%;">W = Weaning - 40 to 149 days (6 weeks to 5 months)</td> </tr> <tr> <td>P = Post Weaning - 150 to 299 days (5 to 10 months)</td> <td>Y = Yearling - 300 to 449 days (10 to 15 months)</td> </tr> <tr> <td>H = Hogget - 450 to 659 days (15 to 22 months)</td> <td>A = Adult - 660 days or older (22 months or older)</td> </tr> </table>	M = Marking - 14 to 39 days (2 to 6 weeks)	W = Weaning - 40 to 149 days (6 weeks to 5 months)	P = Post Weaning - 150 to 299 days (5 to 10 months)	Y = Yearling - 300 to 449 days (10 to 15 months)	H = Hogget - 450 to 659 days (15 to 22 months)	A = Adult - 660 days or older (22 months or older)						
M = Marking - 14 to 39 days (2 to 6 weeks)	W = Weaning - 40 to 149 days (6 weeks to 5 months)												
P = Post Weaning - 150 to 299 days (5 to 10 months)	Y = Yearling - 300 to 449 days (10 to 15 months)												
H = Hogget - 450 to 659 days (15 to 22 months)	A = 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 deviations from the average ie. negative values are below average, positives are above. FBVs presented 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 the association between traits, the heritability of the trait, and non-genetic affects such as birth and rear type, sex, and the number of progeny a sire has in the analysis. Adult FBVs are calculated using all measured assessments up to the current stage. As further assessments are completed, breeding values at earlier stages are also subject to change. For more information: www.merinosuperiorsires.com.au/resources .												
Indexes	<p>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.</p> <p>The indexes reported are the DP+; MP+; FP+ and WP+. The first 3 of these indexes are the same as MERINOSELECT indexes of that name but account for the fact that direct reproduction records are not currently collected as part of standard sire evaluation trials. The WP+ index is unique to AMSEA. Further information about Indexes is available later in this report and at www.merinosuperiorsires.com.au/resources.</p>												

Table 5. Adjusted Sire Means - Wool

Sire Code	Breeders flock, Sire number	Number of Progeny	Adjusted Sire Means											
			GFW kg		CFW kg		FD µm		FDCV %		SL mm	SS N/ktex	CURV deg/mm	
			Y	A	Y	A	Y	A	Y	A	Y	Y	Y	A
1	Baderloo Poll, 200106	37	5.5	5.5	3.8	3.7	18.7	19.0	15.5	15.6	88.4	55.6	49.3	46.5
2	Flairdale Poll, 190028	34	5.3	5.8	3.9	4.0	17.6	18.9	14.6	14.5	88.4	58.1	48.6	49.0
3	Forest Springs Poll, 200102	58	5.6	5.5	4.2	3.9	17.6	18.2	14.4	14.4	89.6	57.5	53.7	51.7
4	Kelvale Poll, 200114	64	5.6	6.0	4.0	4.1	19.7	19.6	14.7	14.4	104.0	57.7	47.2	46.9
5	Kiandra Poll, 200065	49	5.3	5.8	3.8	3.9	17.5	17.6	15.3	15.7	98.3	50.2	48.9	49.4
6	Lorelmo Poll, 170602	28	5.6	5.8	4.1	4.3	17.7	17.5	15.3	15.6	87.5	55.3	53.1	52.8
7	Malleetech Poll, 200119	61	5.6	6.2	4.2	4.5	18.4	18.8	13.6	13.5	87.4	62.2	59.0	55.8
8	Miramoonna, 140012 (Link Sire)	59	5.5	6.2	4.1	4.5	19.1	19.2	14.1	13.8	95.9	60.0	50.9	51.4
9	Mulloorie Poll, 160059 (Link Sire)	57	5.4	7.0	3.9	5.0	19.1	19.6	14.8	15.0	86.5	55.9	48.4	49.5
10	O'Brien Poll, 201166	43	5.3	6.6	3.8	4.8	18.0	18.4	14.9	15.4	91.4	55.4	49.3	49.4
11	Pepper Well Poll, 200145	68	5.5	5.5	3.9	3.8	17.5	17.8	14.6	14.6	92.4	55.6	55.3	54.0
12	Roemahkita Poll, 200058	34	5.5	6.6	4.1	4.9	18.9	18.9	16.6	16.4	91.1	59.0	48.2	45.9
13	The Yanko, 190310	61	5.5	5.7	4.2	4.2	18.8	18.8	15.0	15.3	87.0	60.2	55.8	53.3
14	Wallaloo Park Poll, 172223	55	5.5	5.7	4.1	4.0	19.3	19.7	14.6	14.8	92.6	58.2	53.8	51.3
15	Westwood Poll, 200215	48	5.2	6.1	3.8	4.3	18.2	18.5	13.8	14.3	87.5	57.9	51.1	52.1
16	Willandra Poll, 170018	45	5.2	6.9	3.7	5.0	18.8	19.1	15.2	14.8	92.9	57.3	51.4	51.1
	Progeny group average	50	5.5	6.1	4.0	4.3	18.5	18.8	14.7	14.8	91.6	57.4	51.8	50.9
			kg		kg		µm		%		mm	N/ktex	deg/mm	

These Adjusted Sire Means were calculated using data from both ewe and wether progeny for the Yearling measurements and only the ewe progeny for the Adult measurements.

Table 6. Adjusted Sire Means - Weight and Carcase

Sire Code	Breeders flock, Sire name	Number of Progeny	Adjusted Sire Means					
			WT kg				EMD mm	FAT mm
			W	Y	H	A	Y	Y
1	Baderloo Poll, 200106	37	28.9	56.9	65.6	72.2	32.3	3.9
2	Flairdale Poll, 190028	34	28.9	57.4	62.2	71.3	32.8	4.2
3	Forest Springs Poll, 200102	58	28.6	57.8	63.0	72.7	32.4	4.5
4	Kelvale Poll, 200114	64	29.2	58.1	63.7	72.2	32.1	4.0
5	Kiandra Poll, 200065	49	29.4	59.0	64.5	72.0	31.9	4.4
6	Lorelmo Poll, 170602	28	29.7	57.4	60.9	68.1	30.9	4.2
7	Malleetech Poll, 200119	61	30.2	60.7	66.0	75.5	32.8	4.6
8	Miramoonna, 140012 (Link Sire)	59	27.6	57.1	61.4	70.1	32.1	4.5
9	Mulloorie Poll, 160059 (Link Sire)	57	29.9	59.9	63.0	71.8	31.7	3.9
10	O'Brien Poll, 201166	43	32.3	59.3	64.7	76.0	32.7	4.3
11	Pepper Well Poll, 200145	68	28.5	57.1	62.8	73.6	31.3	4.1
12	Roemahkita Poll, 200058	34	28.0	53.2	56.1	62.5	29.9	3.6
13	The Yanko, 190310	61	28.6	57.9	61.5	71.3	31.5	4.3
14	Wallaloo Park Poll, 172223	55	29.3	58.9	64.4	73.5	33.1	4.5
15	Westwood Poll, 200215	48	29.3	57.3	62.5	69.9	32.1	4.5
16	Willandra Poll, 170018	45	29.2	56.5	61.2	71.4	30.8	3.9
	Progeny group average	50	29.2	57.9	62.9	71.9	31.9	4.2
			kg				mm	mm

These Adjusted Sire Means were calculated using data from both ewe and wether progeny for the Weaning and Yearling measurements and only the ewe progeny for the Hogget and Adult measurements.

Table 7. Flock Breeding Values - Wool

Sire Code	Breeders flock, Sire number	Number of Progeny	Flock Breeding Values											
			GFW %		CFW %		FD μm		FDCV %		SL mm	SS N/ktex	CURV deg/mm	
			Y	A	Y	A	Y	A	Y	A	Y	Y	Y	A
1	Baderloo Poll, 200106	37	-1	-11	-8	-18	0.4	0.3	1.0	1.0	-3.5	-2.5	-4.1	-3.3
2	Flairdale Poll, 190028	34	-4	-7	-5	-7	-1.2	-0.5	-0.2	-0.6	-4.4	0.9	-3.9	-4.3
3	Forest Springs Poll, 200102	58	3	-16	6	-17	-1.4	-1.3	-0.6	-0.7	-3.1	0.0	3.4	3.9
4	Kelvale Poll, 200114	64	4	0	3	-8	2.1	1.9	-0.4	-0.3	22.4	0.8	-8.0	-5.9
5	Kiandra Poll, 200065	49	-4	-11	-8	-19	-1.6	-2.2	0.9	0.8	12.2	-11.6	-4.6	-3.0
6	Lorelmo Poll, 170602	28	1	-5	3	-3	-1.2	-1.6	0.9	0.7	-6.1	-3.2	2.8	4.2
7	Malleetech Poll, 200119	61	3	3	7	7	-0.1	0.3	-2.1	-2.2	-7.3	8.2	13.5	11.4
8	Miramoonna, 140012 (Link Sire)	59	2	4	6	7	1.1	1.0	-1.3	-1.3	7.6	4.4	-0.8	0.4
9	Mulloorie Poll, 160059 (Link Sire)	57	4	29	3	34	1.1	1.5	0.0	0.3	-8.3	-1.1	-4.2	-4.7
10	O'Brien Poll, 201166	43	-3	12	-6	14	-0.5	-0.5	0.2	0.2	-0.3	-2.5	-3.4	-4.1
11	Pepper Well Poll, 200145	68	-1	-12	-5	-18	-1.6	-1.9	-0.3	-0.4	1.7	-3.1	6.1	6.6
12	Roemahkita Poll, 200058	34	4	15	6	21	0.7	0.6	2.7	2.8	-0.2	1.8	-6.7	-8.8
13	The Yanko, 190310	61	0	-9	8	-3	0.4	0.6	0.5	0.4	-8.3	4.3	6.9	6.1
14	Wallaloo Park Poll, 172223	55	1	-8	2	-8	1.4	1.6	-0.4	-0.3	2.1	1.6	3.3	2.4
15	Westwood Poll, 200215	48	-5	-2	-7	-3	-0.3	-0.5	-1.4	-1.1	-6.4	1.4	0.1	1.6
16	Willandra Poll, 170018	45	-4	19	-7	22	0.7	0.7	0.5	0.6	2.0	0.5	-0.4	-2.2

Flock Breeding Values are calculated using all available data from both ewes and wethers.

Table 8. Flock Breeding Values - Weight, Carcase and WEC

Sire Code	Breeder's flock, Sire number	Number of Progeny	Flock Breeding Values						
			WT kg				EMD mm	FAT mm	WEC %
			W	Y	H	A	Y	Y	
1	Baderloo Poll, 200106	37	-0.3	-0.5	0.9	-0.7	1.1	-0.2	Not assessed as minimum threshold not met.
2	Flairdale Poll, 190028	34	-0.1	-0.2	-0.2	-0.3	1.3	0.0	
3	Forest Springs Poll, 200102	58	-1.5	-0.2	0.5	-0.7	0.9	0.8	
4	Kelvale Poll, 200114	64	-0.1	0.9	0.0	-0.4	0.1	-0.7	
5	Kiandra Poll, 200065	49	1.0	2.2	2.1	1.0	-0.6	0.2	
6	Lorelmo Poll, 170602	28	0.4	-0.8	-1.2	-1.6	-1.3	0.0	
7	Malleetech Poll, 200119	61	0.4	4.0	5.7	4.9	0.4	0.6	
8	Miramoonna, 140012 (Link Sire)	59	-2.0	-1.0	-1.0	-0.4	0.6	0.8	
9	Mulloorie Poll, 160059 (Link Sire)	57	0.8	2.1	0.6	1.7	-1.4	-1.4	
10	O'Brien Poll, 201166	43	3.8	1.3	2.2	3.9	0.7	-0.2	
11	Pepper Well Poll, 200145	68	-1.3	-1.3	-0.4	-0.2	-0.6	-0.1	
12	Roemahkita Poll, 200058	34	-1.0	-5.4	-7.2	-6.7	-1.5	-1.0	
13	The Yanko, 190310	61	-1.0	-0.1	-0.6	-0.2	-0.6	0.5	
14	Wallaloo Park Poll, 172223	55	-0.1	1.9	1.4	0.3	1.5	0.8	
15	Westwood Poll, 200215	48	0.6	-1.4	-0.9	-1.3	0.5	0.8	
16	Willandra Poll, 170018	45	0.5	-1.4	-1.9	0.7	-1.1	-0.8	

Flock Breeding Values are calculated using all available data from both ewes and wethers.

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 breeding values, 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 its relative importance to a selection approach for a particular style of production system.

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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.

The Sheep Genetics website gives further index descriptions and explains that there are ‘base’ and ‘plus’ levels for each index with the latter including the breeding values of additional traits. Sires reported within this document have accurate breeding values for these additional traits and so the plus indexes are reported; DP+, MP+, FP+ and WP+.

Dual Purpose (DP+) Income is a balance of wool from breeding ewes and meat production from lambs by Merino and terminal sires.	Merino Production (MP+) Income is a balance of wool and surplus Merino sheep sales with balanced improvement of fleece weight and fibre diameter.
Fibre Production (FP+) Income is mainly from the wool clip with a focus on superior wool quality through improving fibre diameter, CV and staple strength.	Wool Production (WP+) Income is a balance of wool and surplus Merino sheep sales with greater emphasis on increasing fleece weight.

“

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 9. AMSEA Indexes

The indexes reported are the DP+; MP+; FP+ and WP+. The first 3 of these indexes are the same as MERINOSELECT indexes of that name but account for the fact that direct reproduction records are not currently collected as part of standard sire evaluation trials. The WP+ index is unique to AMSEA. 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			
			Dual Purpose Plus	Merino Production Plus	Wool Production Plus	Fibre Production Plus
1	Baderloo Poll, 200106	37	82	76	79	72
2	Flairdale Poll, 190028	34	114	103	97	103
3	Forest Springs Poll, 200102	58	99	105	98	102
4	Kelvale Poll, 200114	64	77	75	85	69
5	Kiandra Poll, 200065	49	83	86	86	85
6	Loelmo Poll, 170602	28	87	105	101	107
7	Malleetech Poll, 200119	61	135	138	129	130
8	Miramoonna, 140012 (Link Sire)	59	106	103	105	104
9	Mulloorie Poll, 160059 (Link Sire)	57	121	116	125	113
10	O'Brien Poll, 201166	43	131	112	112	116
11	Pepper Well Poll, 200145	68	81	93	86	99
12	Roemahkita Poll, 200058	34	85	100	104	106
13	The Yanko, 190310	61	90	101	101	98
14	Wallaloo Park Poll, 172223	55	100	85	91	78
15	Westwood Poll, 200215	48	103	100	95	105
16	Willandra Poll, 170018	45	107	101	104	110

Indexes are calculated using all available data from both ewes and wethers.

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 (DP+ index) and combined visually assessed traits for the site objective.

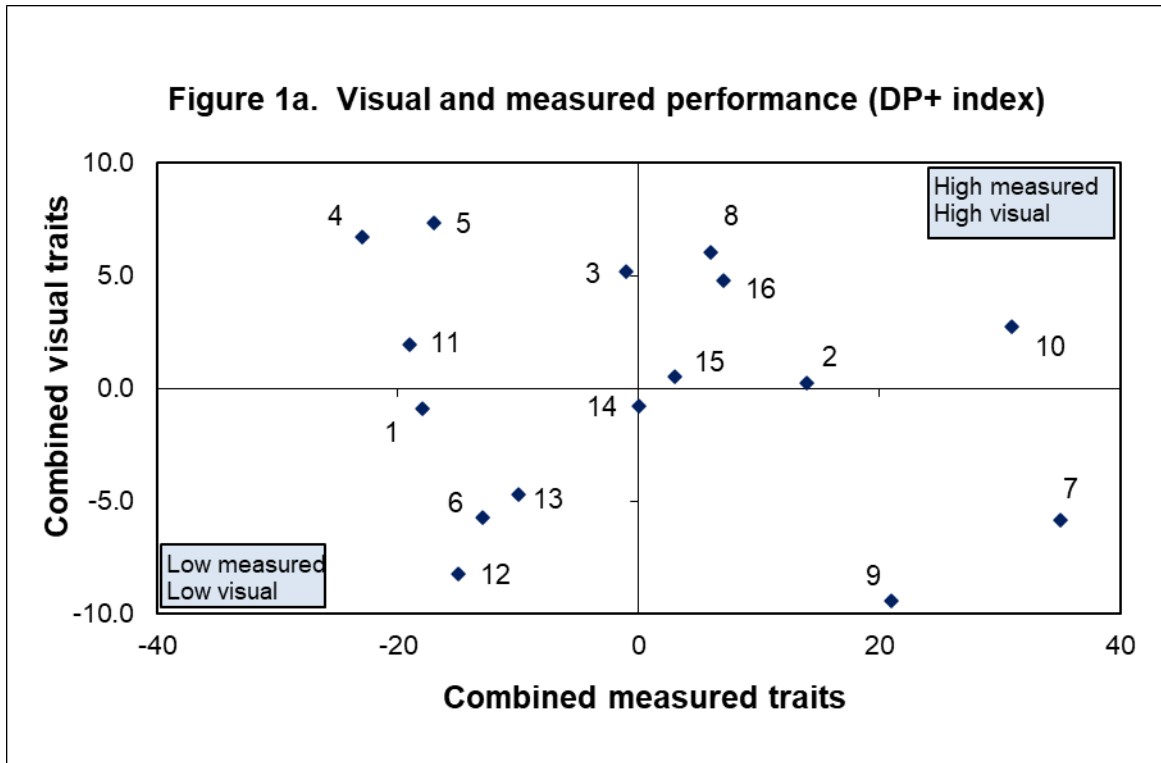


Figure 1b. Combined measured traits (MP+ index) and combined visually assessed traits for the site objective.

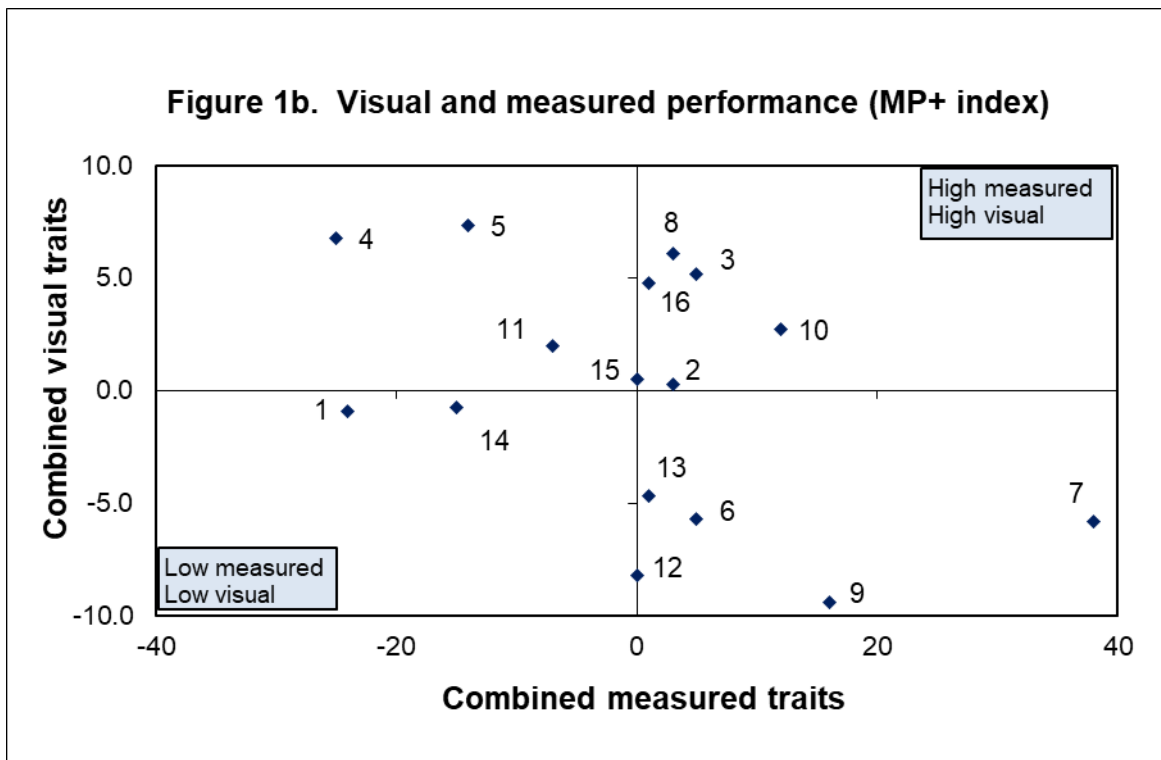


Figure 1c. Combined measured traits (WP+ index) and combined visually assessed traits for the site objective.

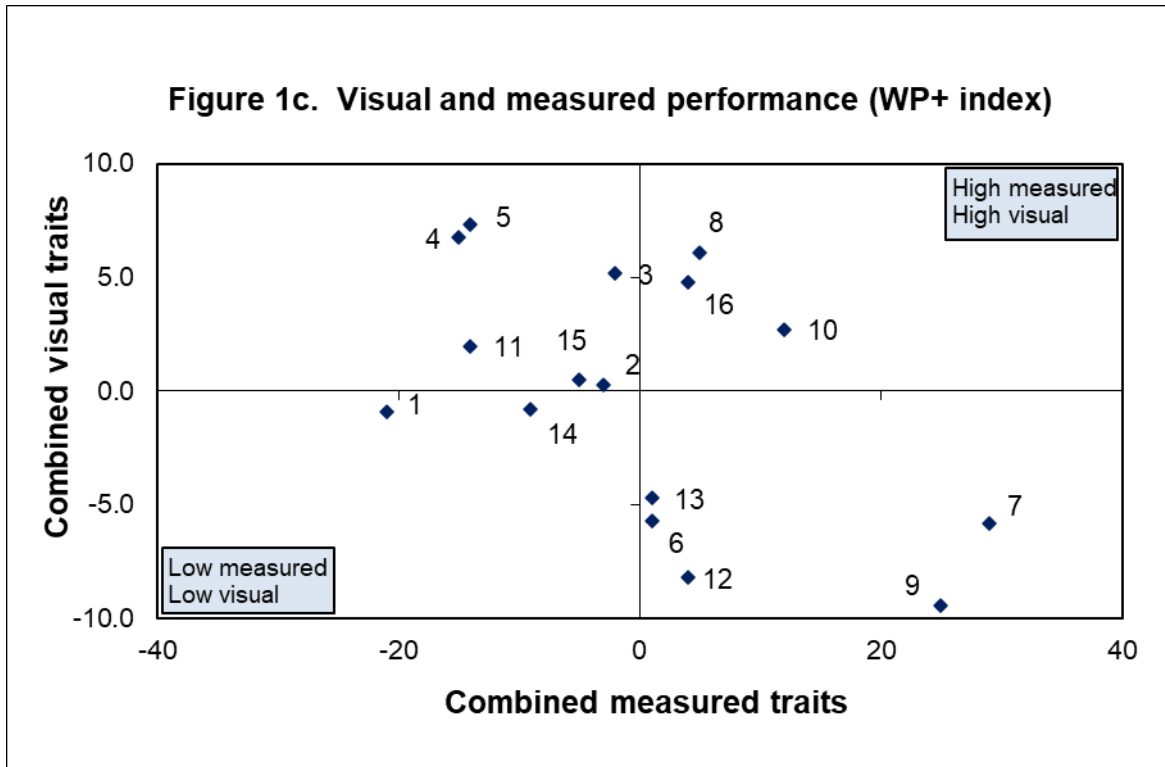
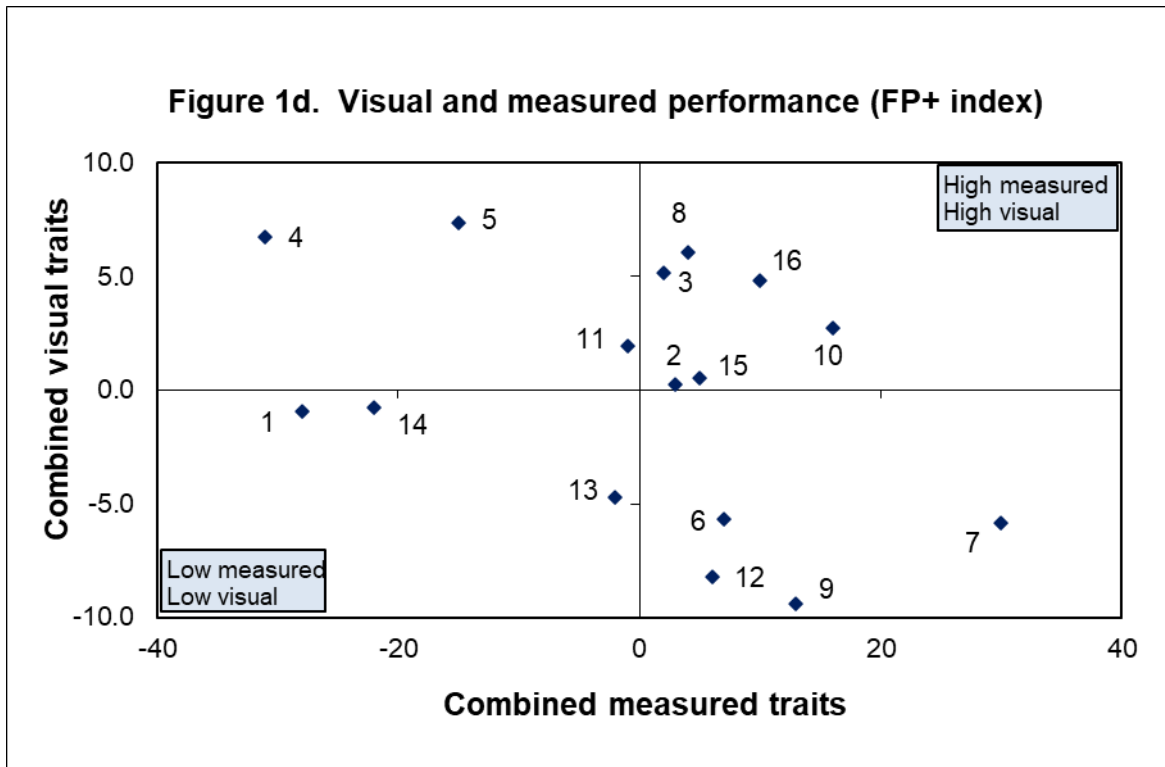


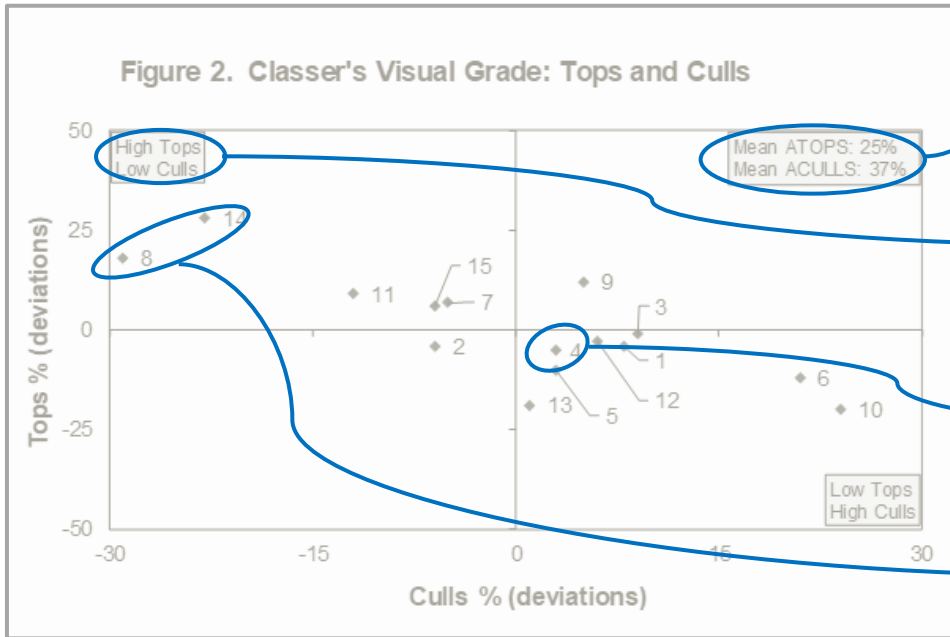
Figure 1d. Combined measured traits (FP+ index) and combined visually assessed traits for the site objective.



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.

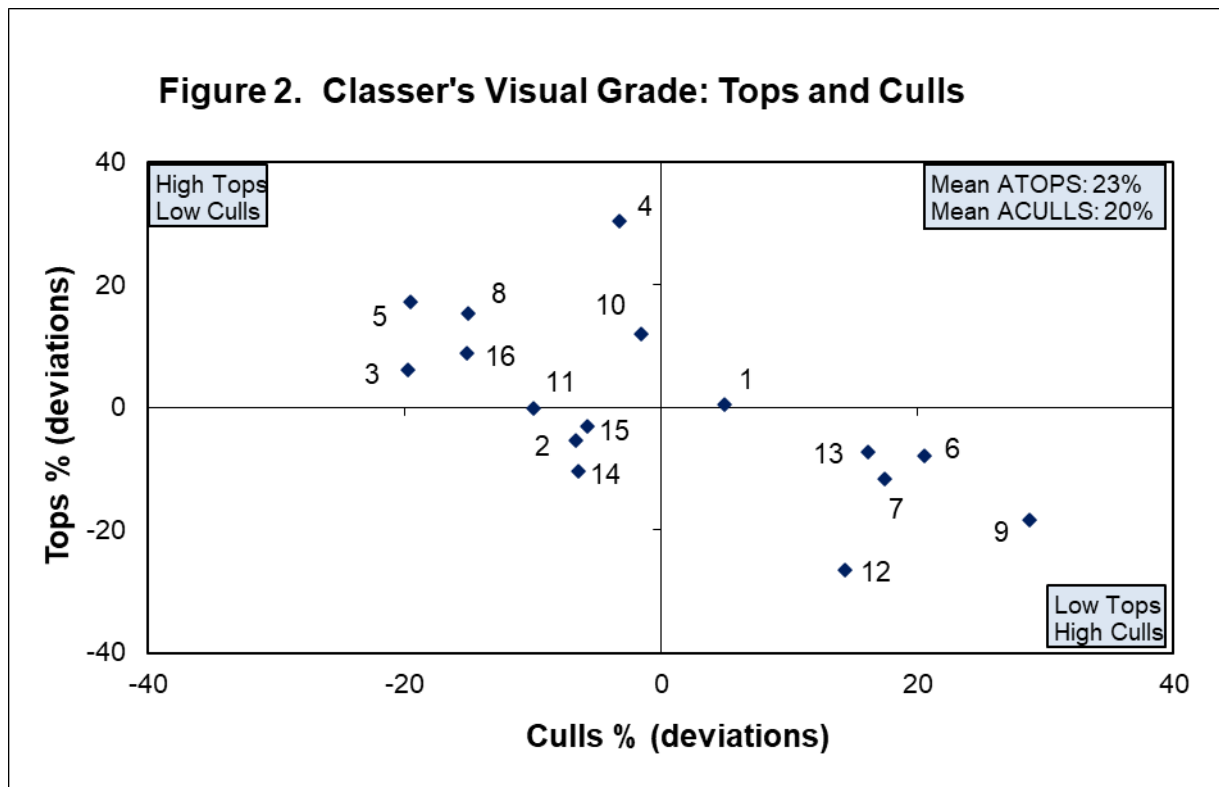
For this figure, this top left quadrant reports the most favourable performance (High Tops and Low Culls). Different quadrants will be the most / least optimal for different trait combinations.

This sire is performing close to the progeny group average.

These two 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.



Summary Graphs

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.

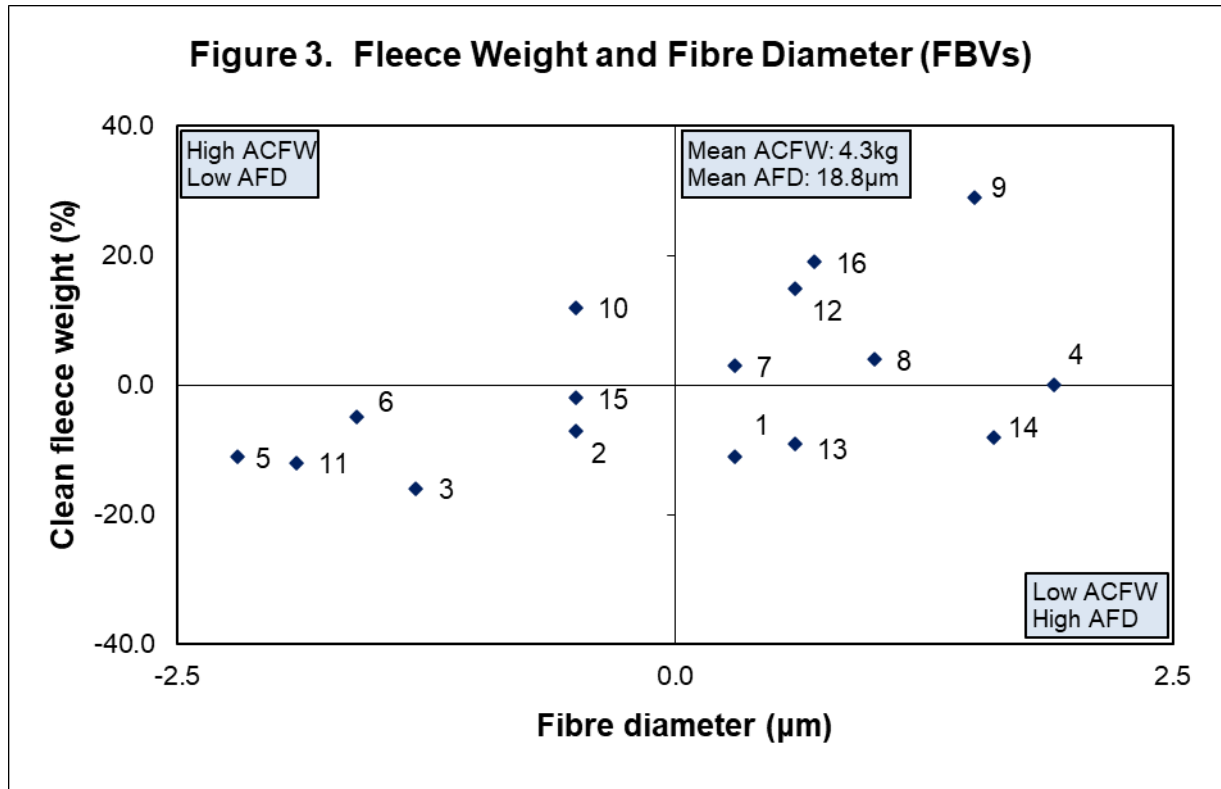
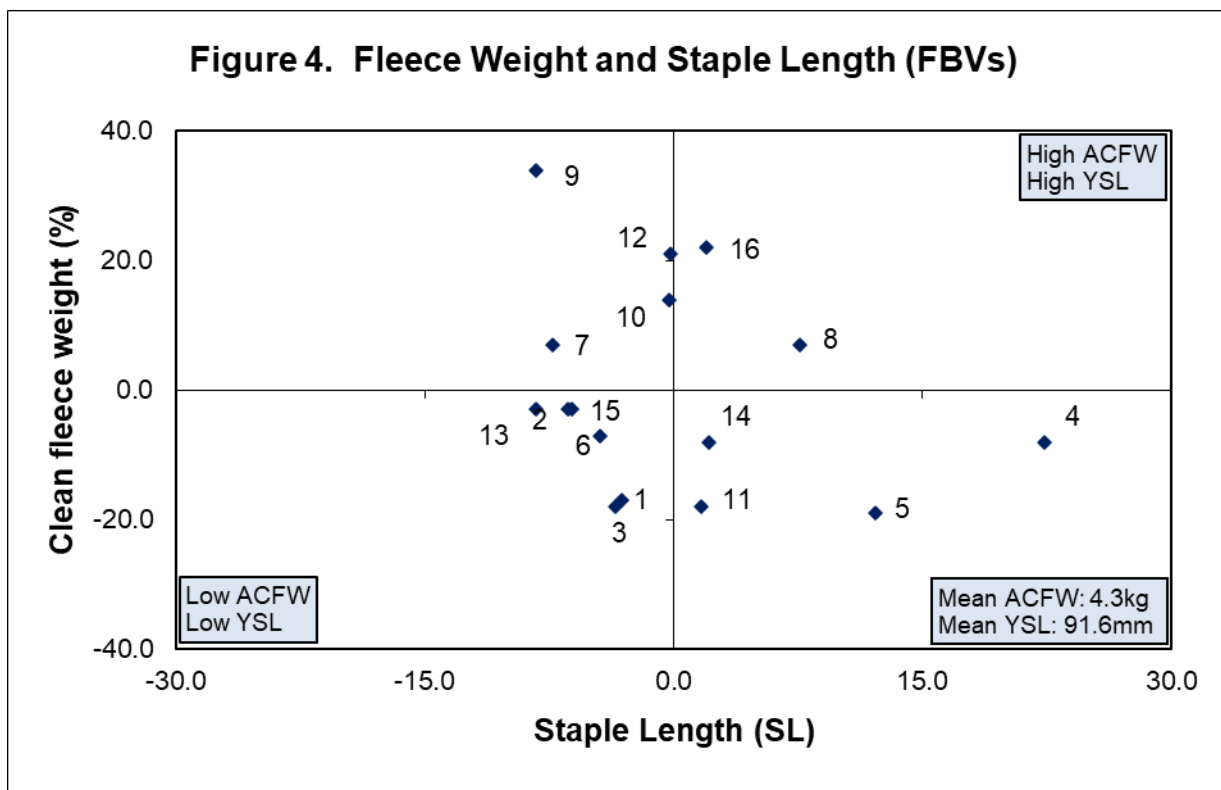


Figure 4. Fleece Weight and Staple Length (FBVs)

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.



Summary Graphs

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.

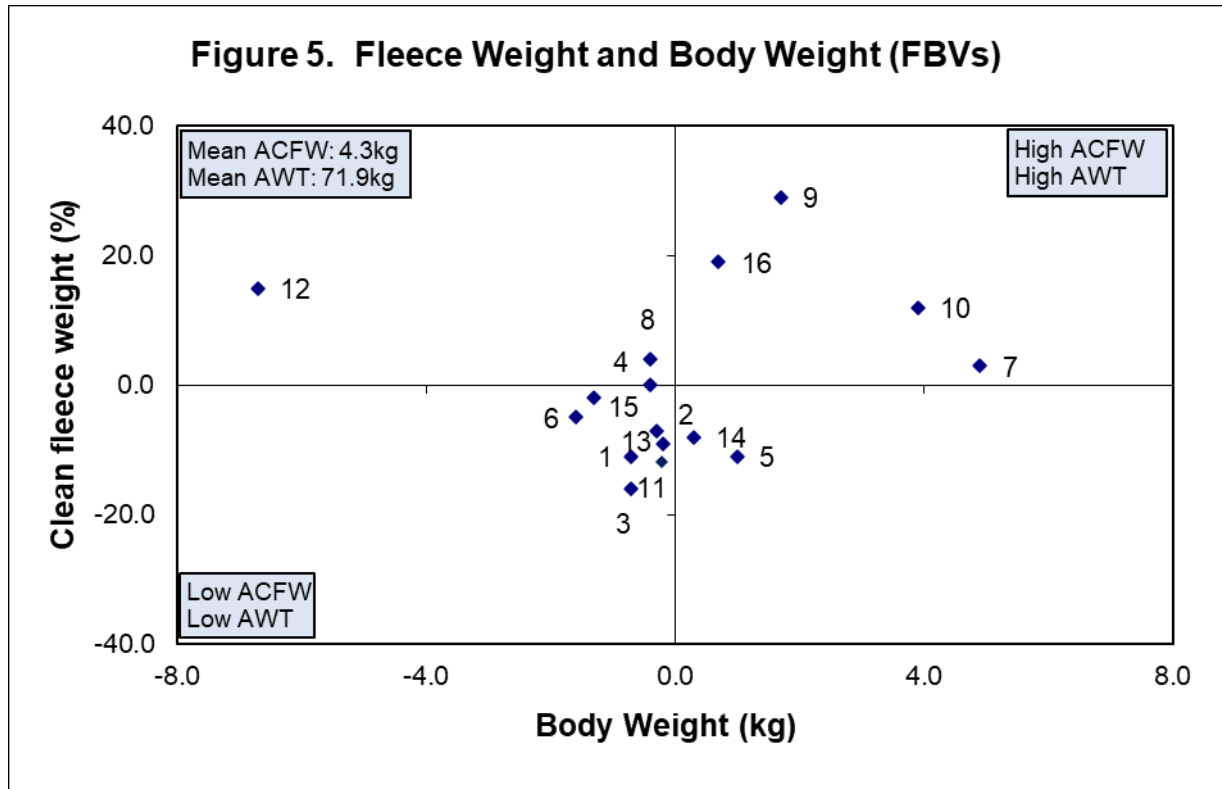
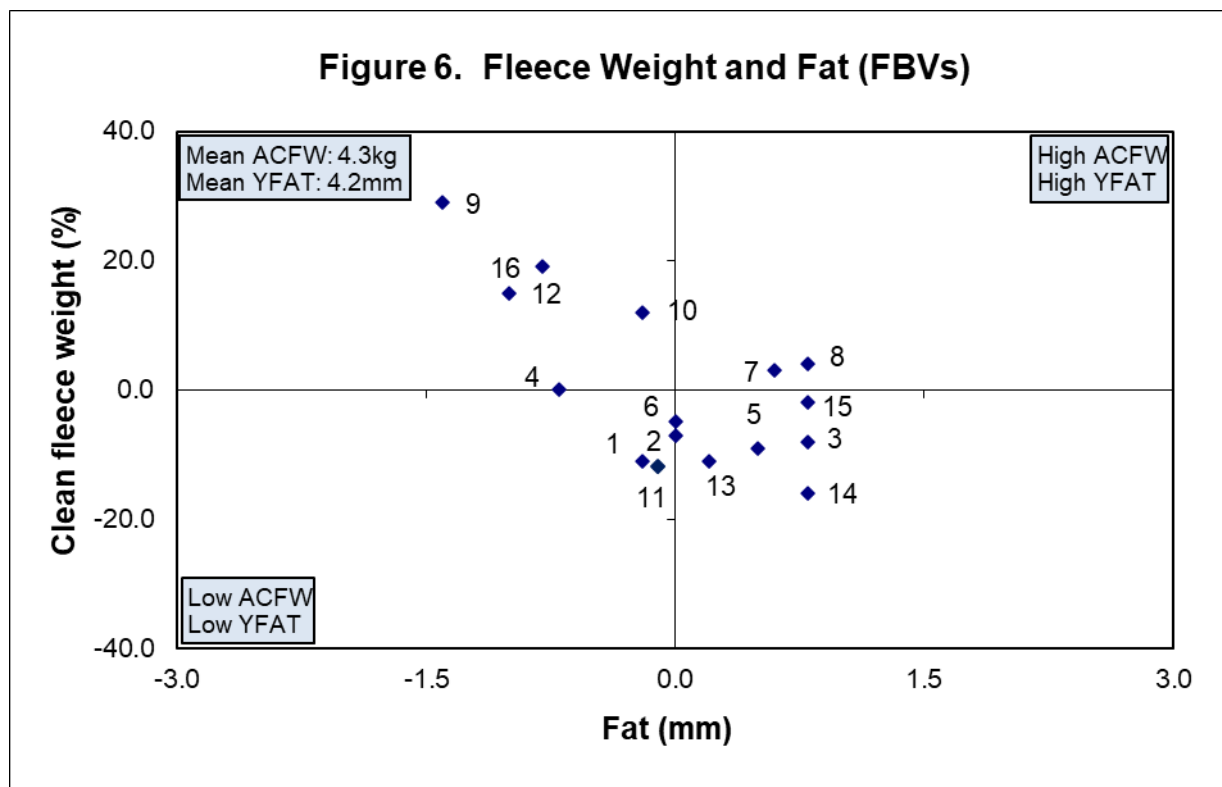


Figure 6. Fleece Weight and Fat (FBVs)

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.



Summary Graphs

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.

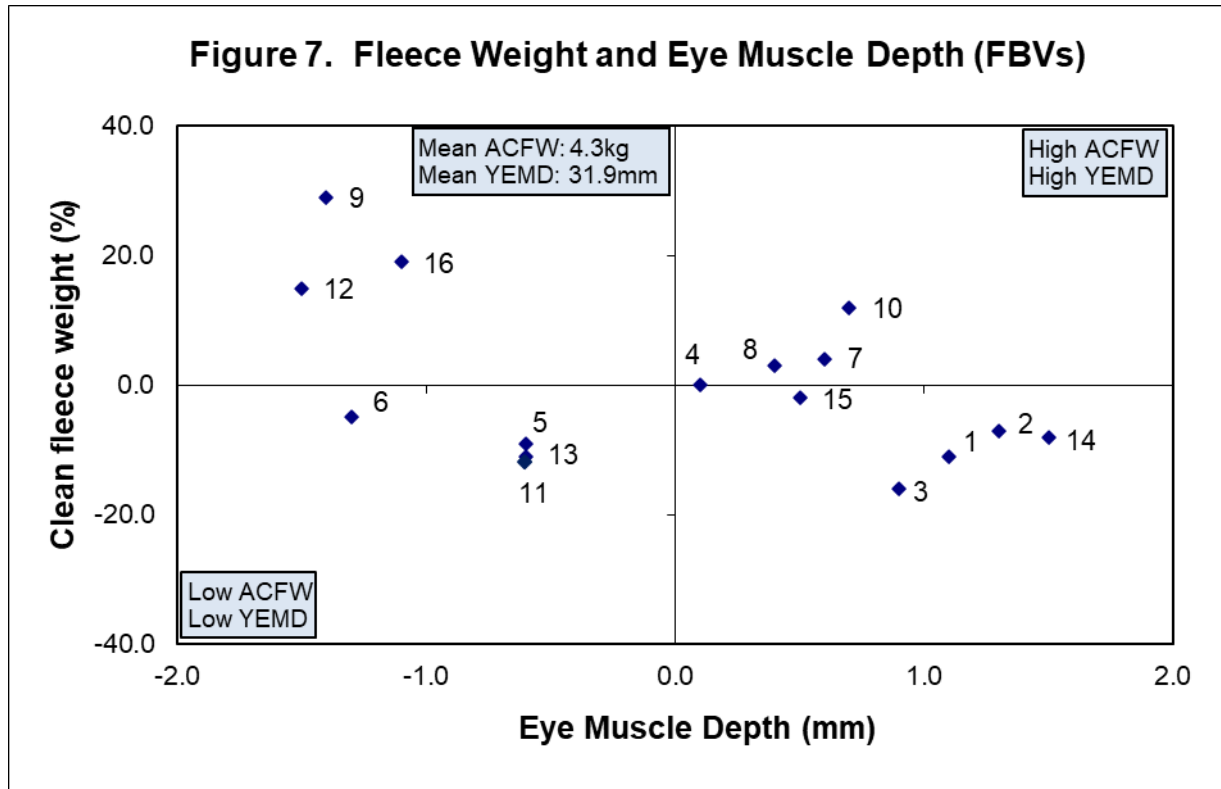
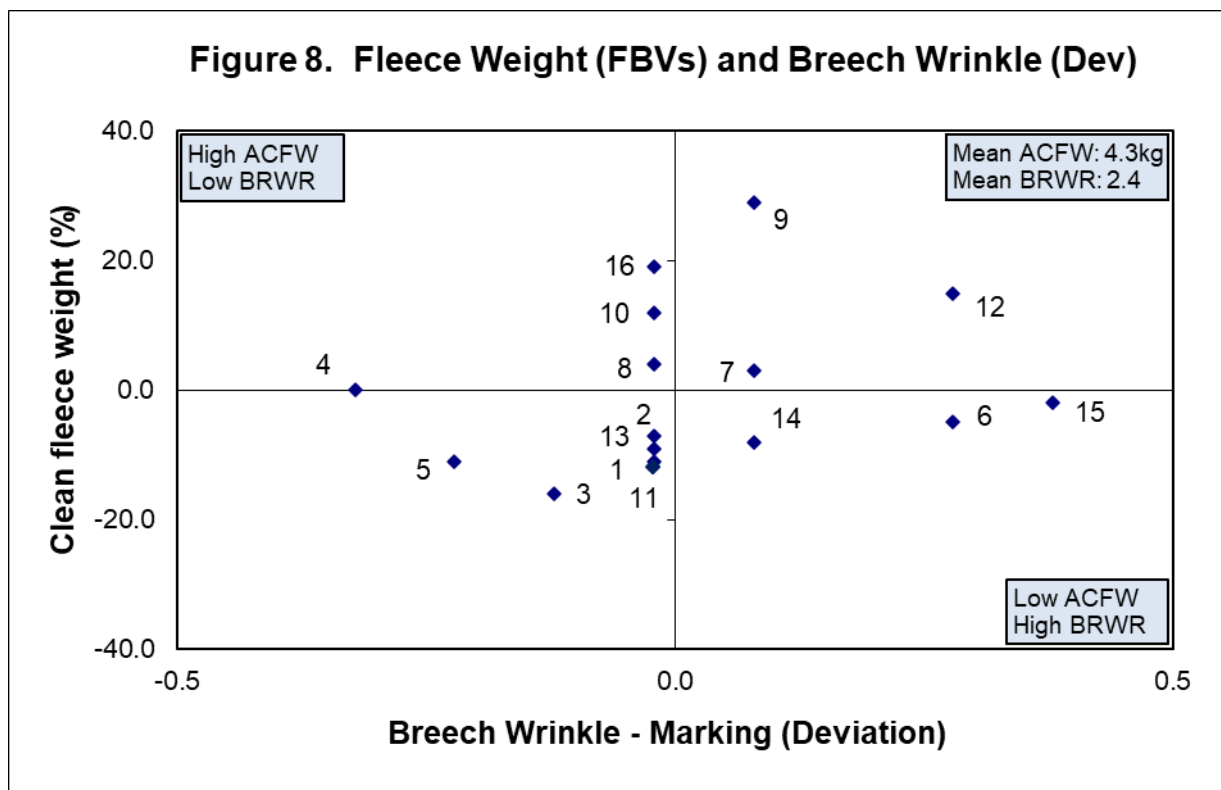


Figure 8. Fleece Weight (FBV) and Breach Wrinkle (Dev)

The graph describes performance for clean fleece weight (CFW) on the side axis and breach wrinkle (BRWR) on the bottom axis. Sires that are above average for fleece weight and below average for breach wrinkle are located in the top left hand quarter.



Summary Graphs

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.

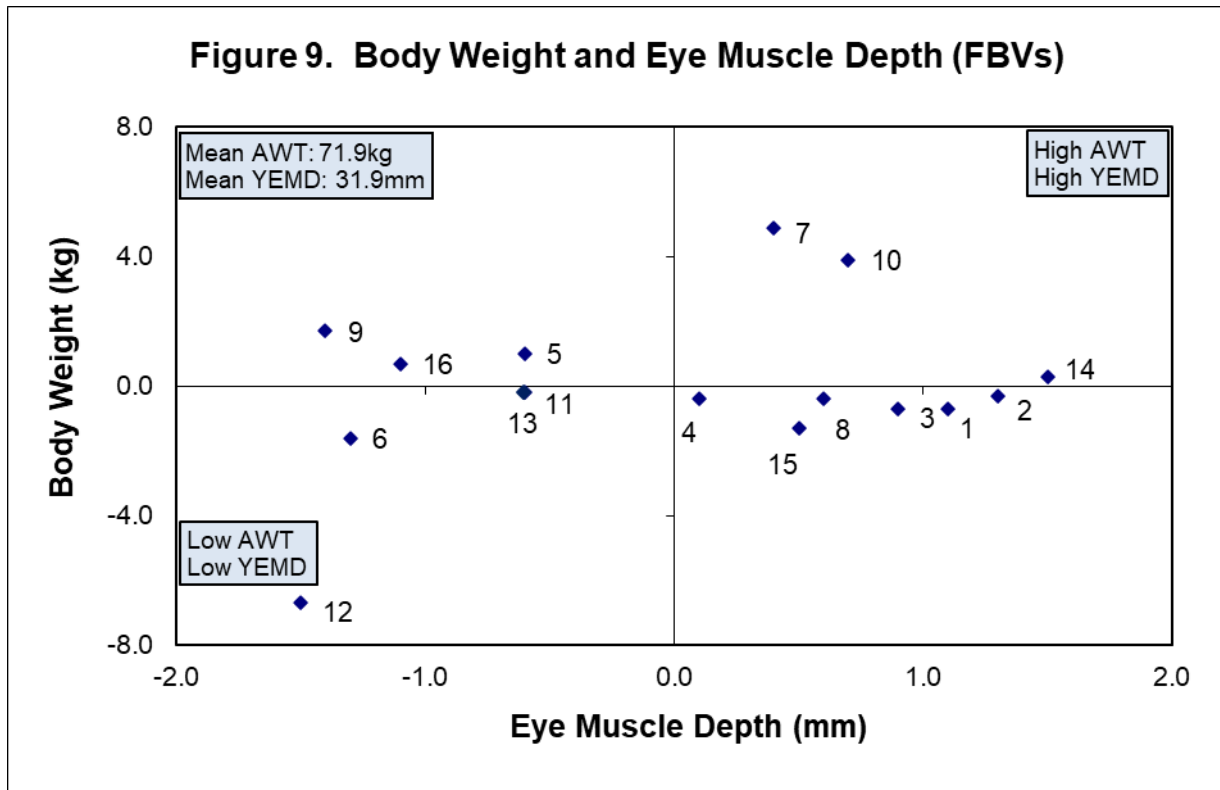


Figure 10. Staple Strength and Worm Egg Count (FBVs)

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 (WEC) not collected as minimum measurement threshold not yet reached.

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 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 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 further information and updates visit
www.merinosuperiorsires.com.au

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