

Badgingarra

Central Test Sire Evaluation

2006 drop

Conducted by

Badgingarra Central Sire Test Group

under the auspices of

The Australian Merino Sire Evaluation Association



with support from

Stud Merino Breeders of W.A



August 2008

Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of writing (August 2008). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with an appropriate adviser.

The product trade names in this publication are supplied on the understanding that no preference between equivalent products is intended and that the inclusion of a product name does not imply endorsement by the site over any equivalent product from another manufacturer.

Recognising that some of the information in this document is provided by third parties, the author and the publisher take no responsibility for the accuracy, currency, reliability and correctness of any information included in the document provided by third parties.

Badgingarra - Central Test Sire Evaluation

The Badgingarra CTSE is an accredited Central Test Sire Evaluation (CTSE) site. It conforms to the requirements of the Australian Merino Sire Evaluation Association (AMSEA).

A committee with the support of the SMBA of WA run the Badgingarra site. They are listed in the table below.

- This is the fifth evaluation carried out by the group
- Evaluations are held at the Dept of Ag WA Badgingarra research station
- Ewes were originally based on Dept of Ag stock. Ewes now include some of the progeny of previous evaluations. Ewes are randomly allocated to sires according to age and pedigree.
- Each sire is allocated 60 ewes.
- Landmark provide support with subjective appraisal thanks to Preston Clarke and Nathan King
- The Stud Merino Breeders Association (SMBA) of WA provide secretarial support
- Rob Shepherd has supplied technical support with electronic data collection and drafting

Site Committee

Name	Phone	Position on committee
Brett Jones	0896323012	Chairperson
Tony Gray.....	0896529072	Technical Coordinator/Manager
Tamara Hooper	0893846466	Secretary/Treasurer

For further information on this report please contact

Brett Jones 0896323012 email Ejanding@bbsat.com.au

Report authors

Brett Jones¹, Tony Gray², Bronwyn Clarke³, Andrew Swan⁴ and Allan Casey⁵

¹ Ejanding Merino Stud, Dowerin WA 6461

² Department of Agriculture and Food, Badgingarra WA

³ PO Box 7076, Shenton Park WA 6008

⁴ AGBU, University of New England, Armidale NSW 2351

⁵ NSW DPI, Forest Road, Orange 2800

August, 2008

2006 Drop Badgingarra Sire Evaluation

The information in this site report provides a comprehensive assessment of the Badgingarra 2006 drop Evaluation of sire's progeny performance, both measured and visually assessed. Four graphs and a table provide a summary of the results and four tables provide the detailed performance information for the standard sire evaluation analysis. Additional measurements have been taken to give an average production value.

This report provides the results from the 2006 drop Evaluation. Progeny were 16 months of age and had 12 months of wool growth.

Contents

	Page
Sire and owner details	3
Managers report	4
Understanding the graphs and tables of results	7
Results – 2nd Evaluation	
<u>Summary</u>	
Figure 1: Combined measured and visual assessed performance	11
Table A: MERINOSELECT Indexes and Classer's Grades	12
Figure 2: Fleece Weight and Fibre Diameter	13
Figure 3: Classer's Grade: Tops and Culls	13
<u>Detail</u>	
Table 1: Major measured trait and Classer's Grade performance	14
Table 2: Other measured trait breeding values	15
Table 3a: Visual trait assessments – wool quality	16
Table 3b: Visual trait assessments – conformation & pigmentation	17
Table 3c: Visual trait assessments – breech scores	18
Table 4: Sire averages for measured traits	19

Badgingarra 2006 Drop

Badgingarra 2006 Drop Evaluation: Age - 16 months, Wool growth - 12 months

Sire and owner details

Sire code	Sire name Sire ID #	Contact Name, Address Phone and Fax Number
1*	Ag WA Baseflock, 20002058 50-9012-2000-002058	Dr Johan Greeff Agriculture WA GSARI 10Dore St Katanning WA 6317 Phone 08 9821 3215 Fax 08 9821 3334
2	Dabrappy, 48 50-3195-2004-040048	Brian Westlake PO Box 22 Calingiri WA 6569 Phone 08 9628 7077 Fax 08 9628 7166
3	Ejanding Poll, 045218 60-0443-2004-045218	B Jones RMB 2000 Dowerin 6461 WA Phone 08 9632 3012 Fax 08 9632 3008
4	Madrino, Afrino 363 AF-0040-2004-000363	Evan Maddock PO Box 66 Mukinbudin WA 6479 Phone 08 9047 1189 Fax 08 9047 1295
5	Mulureen Merinos Poll, E3173 60-9150-2004-4E3173	Craig Morgan Neeabba Farming Co, PO Box 224 Three Springs WA 65219 Phone 08 9955 2001 Fax 08 9954 1354
6	Shahs, WH76 50-3404-2001-WH0076	S. Ralston & Son Shars Stud, PO Box 38 Tammin WA 6409 Phone 08 9637 1026 Fax 08 9637 1119
7*	The Grange, 303251 50-4208-2003-303251	Lukis & Anthea Blake PO Box 85 Moonyoonooka WA 6532 Phone 08 9923 3522 Fax 08 9923 3060 John & Nola Patience PO Box 1807 Geraldton WA 6531 Phone 08 9964 4560 Fax 08 9964 3994

* Sires evaluated to provide links between other Central Test Sire Evaluation sites.

Sire ID provides a unique number for all sheep. A sire ID has 16 digits.

- 2 for the breed of the flock, e.g., Merino (50) & Poll Merino (60).
- 4 for flock code, AASMB Registered flock code or unregistered code.
- 4 for year of drop.
- 6 for tag number used in the breeder's records.

1. Location

- Badgingarra Research Station is situated in the Dandaragan Shire, Western Australia, latitude 30 degrees South, Longitude 115 degrees 31 minutes East. This is 60 kms from the west coast.
- Soils are variable and range from gravel ridges to deep white (infertile) sands.
- Pastures vary according to soil type with subclovers and capeweed being the main pasture species on gravel soils. Silvergrass, spear grass and erodium are well adapted on the deeper sands. A pasture improvement program on the property is establishing subtropical perennial pastures and Serradella legumes on deeper sands.

2. Selection and joining

- 600 ewes are mated to approximately 10 sires each year.
- Ewes were selected by allocating each sire equal numbers of ewes based on sire (where known) and age of the ewe. Ewes were weighed and grouped according to age and sire. The ewes were then randomly allocated to a sire ensuring each sire was allocated equal numbers from each group of ewes. This process is simplified considerably by using electronic eartags in the sheep and automatic drafting equipment.
- In the 2 weeks leading up to mating ewes are fed 500 gm/hd/day of lupins.

3. Pregnancy and lambing

- The ewes are placed in lambing paddocks 2 weeks prior to the commencement of lambing. During this time the ewes are fed hay ad libitum and lupins at a rate of 500 gm/hd/day to increase colostrums production and lamb survival survival rates.
- Lambing paddocks are prepared to ensure high quantity and quality of pasture available to ewes while they are in these areas. This is done by deferring grazing from break and applying high rates of fertilisers. (150 P, 50 K and 50 Urea)
- Lambs are tagged as soon as possible after birth. Once tagged, ewes and lambs from each group are run as one mob. Paddock feed is normally sufficient by this time of year so that lactating ewes do not require supplementary feeding

4. Weaning

- Lambs were weaned in November after shearing and drenched onto pasture paddocks. Lambs are fed low rates of lupins at this stage. This enables the lams to learn to look for the grain at an early age. Grain feeding continues until the break of the season which normally occurs in May but in 2007 break was not until June and this was when supplementary feeding ceased.
- Over the summer months the weaners were supplemented with a combination of lupins and oats, at rates of between 100 to 400 gms/head/day, as well as hay. They were also given access to cereal stubbles.

Managers Report – 2006 Drop Evaluation

5. Visual trait assessment

- Visual assessments were carried out by Preston Clarke and Nathan King from Landmark.

6. Rainfall Records for Badgingarra Research Station

	2002	2003	2004	2005	2006	2007	Average*
JAN	0	0	24	0	47	8.7	10
FEB	0	0	0	0	22	0	16
MAR	12	56	0	13	0	0	17
APR	40	17	0	17	7	24	28
MAY	23	92	72	116	18	16	79
JUN	77	110	95	144	25	37.8	114
JUL	81	72	50	16	54	83.8	104
AUG	87	107	79	80	60	71.2	86
SEP	23	67	39	61	62	44.4	50
OCT	34	0	12	15	22	14	30
NOV	0	15	21	0	19	0	19
DEC	0	0	9	0	9	35.4	9
TOTAL	377	536	400	461	345	335.3	562
MAY-OCT	325	448	347	432	241	267.2	463

* Badgingarra Research Station Records from 1962

The rainfall records show seasonal fortunes varied considerably for the duration of this trial in 2005 and 2006. 2005 was an average season for rainfall. There was a dry period in July (while the ewes were lambing) that resulted in reduced pasture growth but good rains in August and September allowed pastures to recover and enable good growth rate of lambs up to weaning.

Unfortunately 2007 was the lowest rainfall on record for Badgingarra Research Station. The rainfall in April and May allowed pastures to germinate however lack of follow up rainfall resulted in most pastures dying off and hand feeding had to continue through until August. This resulted in low growth rates for the progeny during the early part of winter.

Managers Report and Visual Assessment

Evaluation and Management Program

Event	Date/s	Age (months)	Wool (months)
Selection of ewes			
Joining	9 & 10 Feb 2006		
Lambing: start – finish	14 July 2006		
Tagging and pigment	August 25 2006		
Weaning	7 November 2006	4	
Weaning body weight	15 November 2005	4	
Even-up shearing			
Crutching	26 April 2007		
Fleece sampling	2 October 2007	15	
Staple length	2 October 2007	15	
Assessment shearing	7 November 2007	16	
Classer's Group	30 October 2007	15	
Visual trait scoring	30 October 2007	15	
Body weigh	2 November 2007	15	
Muscle - fat scanning	2 November 2007	15	
WEC sampling	5 November 2007	15	
Drench			
<ul style="list-style-type: none"> • Cydectin at weaning 			
Vaccination			
<ul style="list-style-type: none"> • 3in 1 plus S and B12 • Scabi Guard 		marking, weaning, May 06 Scratch at marking	1
Minerals			
<ul style="list-style-type: none"> • Se and Co bullets 		Feb 2007	8
Supplementary feeding: start – finish			
24 November 2006 to 27 June 2007		<ul style="list-style-type: none"> • November 24 to December 31 2006, 100 gms / hd/ day (Lupins) • Jan 07 to Mar 07, fed 200 gms/hd/day Lupins • April 07 to June 07 350 gm/hd/day Lupin cereal mix (50/50) plus hay @ 0..25/hd/day 	

Summary graphs and table - page 11

Summary graph: Visual and measured performance. (Figure 1)	Each sire that has 20 (or 15 for 2nd Evaluation) or more progeny evaluated is located on the graph. The graph describes performance for combined measured traits and visual assessment. Measured traits are combined with a Merino 7% MERINOSELECT index. Visual trait performance is a combination of Classer's Grade performance (Tops and Culls) - see page 11. Sires that are above average performers for these traits are located toward the top right hand quarter.
Summary table: Indexes and Tops and Culls. (Table A)	Each sire is listed for four index performance options and Classer's Grade (Tops and Culls). The index options are based on measured traits and they vary the emphasis on fleece weight, fibre diameter, body weight, staple strength and reproduction (see 'MERINOSELECT Index Options' - page 8 for a more detailed description of indexes used).
Fleece weight by fibre diameter. (Figure 2)	The graph describes performance for fleece weight on the side axis and fibre diameter on the bottom axis. Sires that are above average for Fleece Weight and below average fibre diameter are located in the <u>top left hand quarter</u> .
Classes Tops by Cull Grade. (Figure 3)	The graph describes performance for Classer's Tops Grade on the side axis and Cull Grade on the bottom axis. Sires that have above average Tops and below average Culls are in the <u>top left hand quarter</u> .

Tables – page 14

Sire code:	Allows a sire to be located on the summary graphs and some tables.
Sire name:	Identity of the breeder's flock and the sire's number or name.
No. of progeny:	The number of progeny a sire had at the most recent measured analysis.
Flock Breeding Values:	Flock Breeding Values (FBVs) are Estimated Breeding Values (EBVs) calculated from a SGA contemporary group site analysis. FBVs describe the relative breeding value (genetic performance) of the sires. A sire's progeny will express half of their Sires FBV. FBVs do not necessarily reflect the animals observed performance, which is a combination of both genetic and environmental influences. FBVs are an estimate of the genetic component of the observed performance.
Traits: Abbreviation, trait and the units reported	<p>GFW: Greasy fleece weight (percentage).</p> <p>CFW: Clean fleece weight (percentage).</p> <p>FD: Average fibre diameter (micron).</p> <p>WT: Body weight (kilograms).</p> <p>FDCV: Fibre diameter coefficient of variation (percentage).</p> <p>SL: Staple length (mm) at the mid-side.</p> <p>SS: Staple strength (N/ktex) at the mid-side.</p> <p>EMD: Eye muscle depth (mm) at the 'C' site.</p> <p>FAT: Fat depth (mm) at the 'C' site.</p>
Age at assessment:	<p>Y = Yearling - 300 to 400 days (10 to 13 months of age).</p> <p>H = Hogget - 400 to 540 days (13 to 18 months of age).</p> <p>A = Adult - 540 days or older (18 months and older).</p>
Sire averages:	Sire averages are the average performance of all the progeny of a sire. No account is made for factors that can improve the breeding value accuracy.

Understanding the results – continued

- Classer's Grade:** A classer grades all progeny as either Tops, Flocks or Culls based on their visual assessment of all traits. The percentage deviation from the average of Tops and Culls is presented.
- Scored Traits:** The average score for each trait and percentage of progeny given each score.
- Wool colour: Greasy wool colour scored from 1 (whitest) to 5 (yellow).
 - Wool character: Crimp definition scored from 1 (very well defined) to 5 (undefined).
 - Staple weathering: The deterioration of the staple due to dust, light and/or water (not including fleece rot). Scores from 1 (least) to 5 (most) reflect the depth and degree of deterioration across the fleece. A 1 score is equivalent to a coated fleece in a shed environment and a 5 score is full length and high degree of weathering.
 - Fleece rot: The severity of fleece rot in a progeny group, based on a 0 to 5 score. A score of zero is given to progeny with no fleece rot, while scores of 1 and 2 are given to bands of minor fleece rot (bacterial staining but no crusting), with 3, 4 and 5 being given to bands of crusty fleece rot. For more information on scoring sheep for fleece rot, see NSW DPI, Agfact A3.3.41.
 - Face cover: Wool cover on the face scored from 1 (bare head) to 5 (fully covered face).
 - Feet/Legs: Conformation of feet and legs scored from 1 (sound) to 5 (most deformed).
 - Breech Cover: The degree of breech bare area scored from 1 (Most bare area) to 5 (least bare area).
 - Jaw: Under- or over-shot jaw. The percentage of progeny with a significant negative expression is reported as Neg(ative).
 - Back/Shoulder: Conformation of the back and shoulder. The percentage of progeny with a significant negative expression is reported as Neg(ative).
 - Pigmentation: The percentage of progeny in each of the following categories of pigmentation is reported as Neg(ative) if recorded as a 5 score:
 - Black Lamb:** recessive coloured sheep (largely pigmented wool or if extensively white, is pigmented around the eyes with more or less symmetrical pigmentation on the rest of the body). If the Black Lamb form of pigmentation is identified it is recorded as a score 5. Other expressions are recorded as score 1.
 - Pigmented wool:** pigmentation as random spots or isolated pigmented fibre or pigmented birth-coat halo-hair or pigmented leg hair or Black Lamb. If the quantity of 'pigmented wool' is at a level that would result in a breeding ewe being culled in a high standard commercial Merino flock it is recorded as score 5. Other levels of pigmented wool are recorded as score 1.
 - Pigmented skin:** a significant degree of pigmented skin on the sheep's non-wool producing areas not including those defined by pigmented wool. If the degree of 'pigmented skin' is at a level that would result in a breeding ewe being culled in a high standard commercial Merino flock it is recorded as a score 5. Other levels of pigmented skin are recorded as score 1.
- Sire Progeny Group Evenness: (optional)** An assessment of evenness of sire progeny groups carried out at 22 months of age with 12 months wool growth. Classers assess the progeny for evenness to type based on visually assessed traits that are significantly above or below industry standards – 1 (very even) and 5 (very uneven).

Index Options

Breeding Objective index options provide the relative value of sires based on a combination of the measured traits' genetic performance. The indexes used in this report are only some of the many indexes that can be used to describe an individual breeder's objective for measured traits.

If a breeder is considering using a sire in this report it is critical to consider the performance of the breeder's flock relative to the performance standard in this report. The relative performance must be considered to establish the result that can be expected when a sire is used in a breeder's flock.

The following MERINOSELECT standard indexes – Fine 10% +SS; Merino 14% +SS and Dual Purpose 7% - are AMSEA the base reporting indexes.

Index production system and Breeding Objectives

Fine 10% +SS (F10% +SS) *Fine wool Merino self-replacing production system with moderate emphasis on fleece weight and fibre diameter (10% Micron Premium) plus moderate emphasis on staple strength and maintain performance on other traits.*

Merino 14% +SS (M14% +SS) *Medium wool Merino self-replacing production system with high emphasis on fibre diameter and low emphasis on fleece weight (14% Micron Premium) plus moderate emphasis on live weight and staple strength with maintain performance on other traits.*

Dual Purpose 7% (DP7%) *Medium wool Merino self-replacing production system (in conjunction with 25% of ewes in terminal lamb production) with moderate emphasis on fleece weight and fibre diameter (7% Micron Premium) plus high emphasis on live weight and reproduction and maintain performance on other traits.*

Index percentage contribution to economic gain

The percentage contribution to economic gain to a commercial Merino flock that joins rams selected using an index shown below.

Fine 10% +SS

Clean fleece weight:	42%
Fibre diameter:	39%
Body weight:	0%
Staple strength	19%
Worm egg count	0%
Number lambs weaned	0%

Merino 14% +SS

Clean fleece weight:	8%
Fibre diameter:	58%
Body weight:	3%
Staple strength	31%
Worm egg count	0%
Number lambs weaned	0%

Dual Purpose 7%

Clean fleece weight:	26%
Fibre diameter:	24%
Body weight:	30%
Staple strength	6%
Worm egg count	0%
Number lambs weaned	14%

Accuracy of Flock Breeding Values

Flock Breeding Values (FBVs) are reported by Sheep Genetics Australia (SGA). FBVs express the expected performance of progeny 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, adjustment for birth effects and the number of progeny a sire has in the analysis.

True Breeding Values would be achieved if the number of progeny evaluated for each sire was infinite. Because the number of progeny in the evaluation is not infinite, performance shown in this report is described as *Flock Breeding Values*.

Without progeny test information the correlation between the *Flock* and *True Breeding Value* of sires from different sources would be zero (0.0%). The correlation between *Flock* and *True Breeding Value* improves rapidly from 0.0% with no progeny to 77% with 10 progeny. The rate of improvement in correlation slows from 86% with 20 progeny, to 90% with 30 progeny and 92% with 40 progeny. With an infinite population the correlation is 100%. Note that the correlation used in the above example is for a trait such as fibre diameter with a high heritability (0.5).

A heritability of 0.5 indicates that half or 50% of the measured performance is passed onto offspring. A heritability of 0.35 indicates 35% is passed on. The FBVs that are shown in this report have already accounted for heritability and therefore describe the performance that can be expected from a sire's progeny.

Link Sires

Link sires provide the 'genetic link' between CTSE sites located across Australia to allow all sires entered in these sites to have their performance reported relative to each other in *Merino Superior Sires*. *Merino Superior Sires* reports sires from across all effectively linked CTSE sites and across all years at these sites. Link sires are therefore a vital component of the Central Test Sire Evaluation. To be used as link sire a ram must have at least 25 progeny assessed at 1st Evaluation at one accredited site. Site reports provide valuable information not reported in *Merino Superior Sires* however *Merino Superior Sires* reports the performance of a large number of sires which can provide a wider perspective of the elite rams available across many flocks in Australia and New Zealand.

Calculation of combined measured trait and combined visual trait performance

Combined measured trait performance is calculated as (MERINOSELECT 7% MP Index - 100).
Combined visual trait performance is calculated as (Classer's Grade Tops% - Culls%)/5, expressed as a deviation from (average Tops% - average Culls%)/5.

Example

- Sire's performance:
- 7% MP Index value = 119.7
 - Tops% = 25.5 (average Tops% = 25.1)
 - Culls% = 17.6 (average Culls% = 16.4)
-
- Combined Measured = 119.7 - 100 = 19.7
 - Combined Visual = ((25.5 - 17.6)/5) - ((25.1 - 16.4)/5) = 7.9/5 - 8.7/5 = 1.58 - 1.74 = -0.16

Summary Graph – Figure 1 - Combined measured traits and visual trait performance

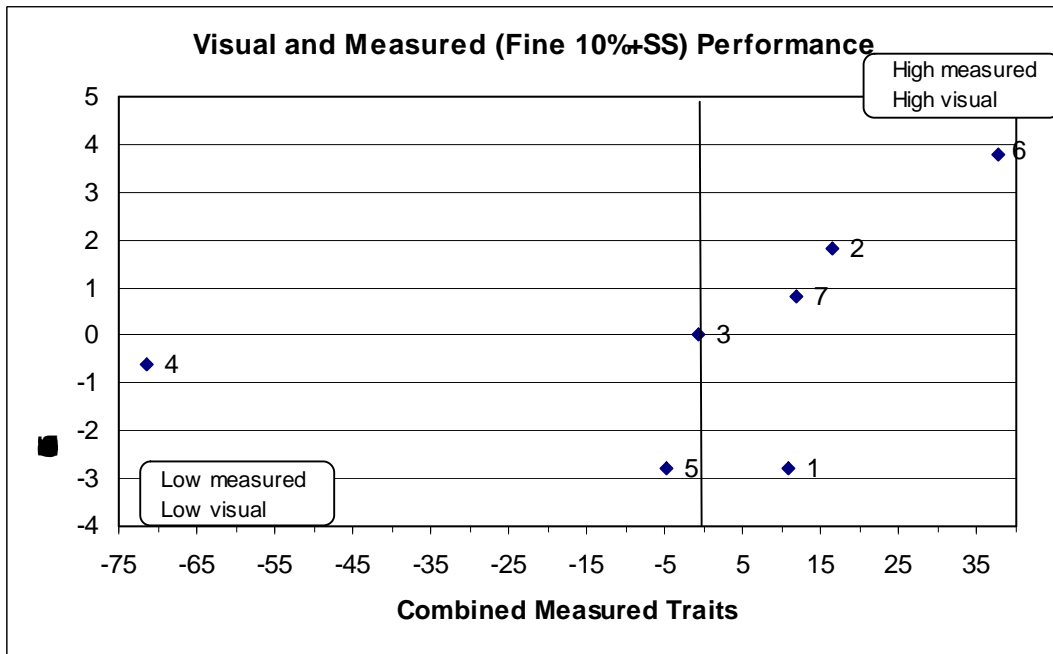
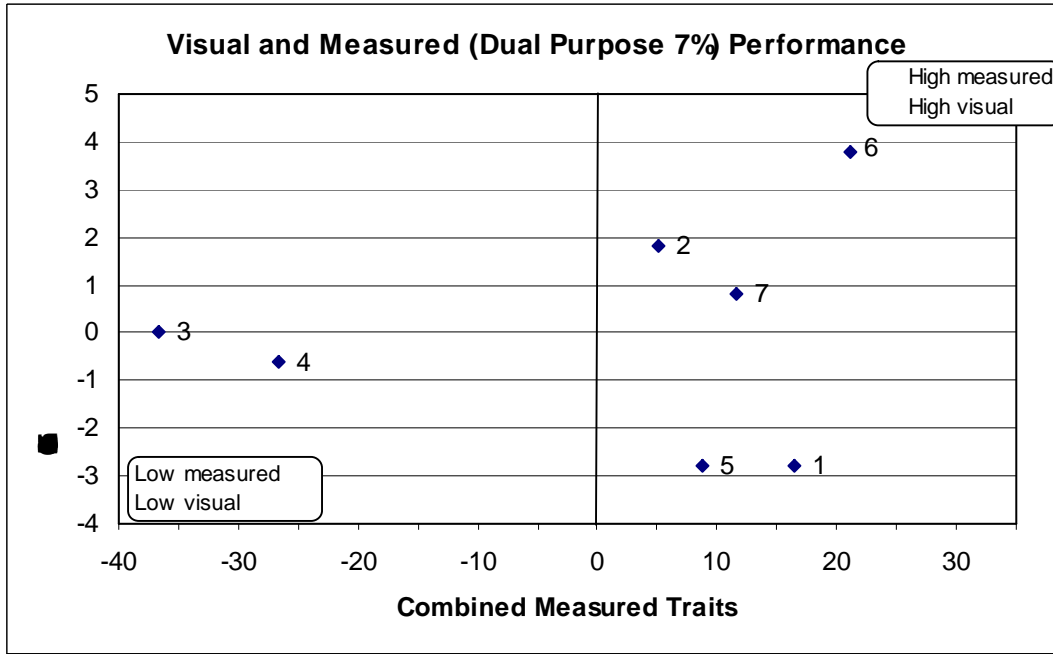


Table A – MERINOSELECT indexes and Classer's Grade

Sire Code	Sire name	MERINOSELECT indexes			Classer's Grade	
		<i>Dual Purpose</i> 7%	<i>Merino</i> 14% +SS	<i>Fine</i> 10% +SS	Tops % (dev) H [^]	Culls % (dev) H
1*	Ag WA Baseflock, 20002058	116.5	113.4	110.7	-8	6
2	Dabrappy, 48	105.1	114.4	116.4	4	-5
3	Ejanding Poll, 045218	63.3	93.7	99.4	4	4
4	Madrino, Afrino 363	73.3	61.1	28.7	-8	-5
5	Mulureen Merinos Poll, E3173	108.7	93.5	95.1	-5	9
6	Shahs, WH76	121.2	123.3	137.7	12	-7
7*	The Grange, 303251	111.6	100.4	111.8	2	-2
Average performance					18	14

* Link Sires: Sires evaluated by the site to provide links between years and sites so that the all site results can be combined into a single report – *Merino Superior Sires*

[^] Y = Yearling (300 to 400 days); H = Hogget (400 to 540 days); A = Adult (540 days and older)

Figures 2 and 3 – Summary Graphs – FW and FD, Tops and Culls

The following graphs are examples and needs to be deleted and the relevant graph from your site's most recent evaluation inserted.

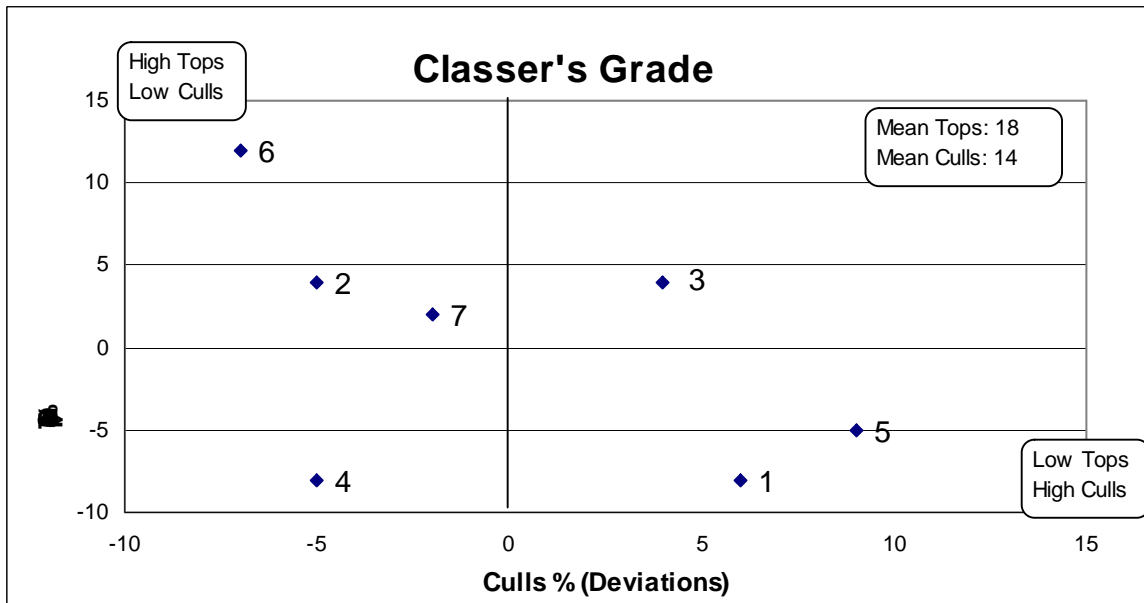
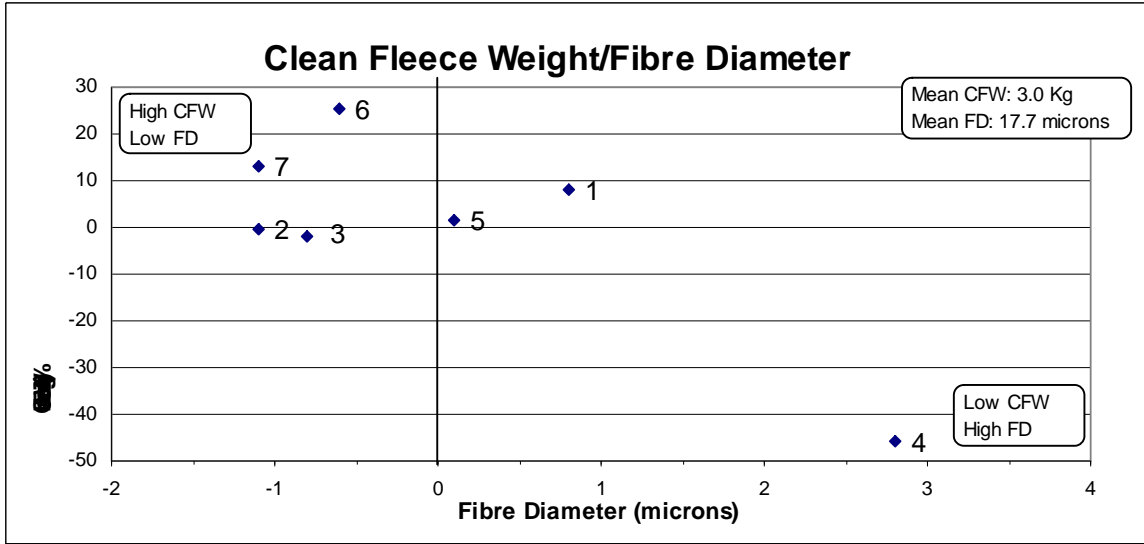


Table 1 – Major measured traits and Classer's Grades

Sire Code	Sire name	Number of progeny	Flock Breeding Values (deviations)				Classer's Grade ¹	
			H [^] GFW %	HCFW %	HFD μ m	HWT kg	Tops % (dev) H [^]	Culls % (dev) H
1*	Ag WA Baseflock, 20002058	30	2.2	7.9	0.8	-1.0	-8	6
2	Dabrappy, 48	36	-1.1	-0.5	-1.1	-1.1	4	-5
3	Ejanding Poll, 045218	33	-5.5	-1.9	-0.8	-7.1	4	4
4	Madrino, Afrino 363	43	-40.8	-45.6	2.8	7.9	-8	-5
5	Mulureen Merinos Poll, E3173	42	8.5	1.6	0.1	1.2	-5	9
6	Shahs, WH76	31	19.5	25.2	-0.6	0.5	12	-7
7*	The Grange, 303251	26	17.4	13.2	-1.1	-0.3	2	-2
Average performance			4.3	3.0	17.7	48.8	18	14

* Link Sires: Sires evaluated by the site to provide links between years and sites so that the all site results can be combined into a single report – *Merino Superior Sires*.

[^] Y = Yearling (300 to 400 days); H = Hogget (400 to 540 days); A = Adult (540 days and older)

¹ Classer's Grade is expressed as the percentage deviation of average Tops% and Culls%

Note: Information on how to use the results in the table above can be found on page 7.

Table 2 – Other measured traits

Sire Code	Sire name	Number of progeny	Flock Breeding Values (deviations)						
			HAFDCV %	HSL mm	HSS N/ktex	HFAT mm	HEMD mm	HCURV deg	HVEC %
1*	Ag WA Baseflock, 20002058	30	-2.2	3.2	7.7	0.3	1.6	-6.9	125.3
2	Dabrappy, 48	36	-1.2	-3.3	-0.9	-0.8	-0.7	-1.2	29.8
3	Ejanding Poll, 045218	33	2.7	-8.2	-5.8	-2.6	-4.2	-8.6	-26.4
4	Madrino, Afrino 363	43	-4.6	-5.6	14.6	2.4	3.4	21.2	-99.6
5	Mulureen Merinos Poll, E3173	42	0.4	4.4	-4.7	0.9	1.3	-4.5	-90.2
6	Shahs, WH76	31	1.0	12.8	-2.7	-1.0	-1.8	-7.1	237.3
7*	The Grange, 303251	26	3.9	-3.2	-8.2	0.8	0.4	7.2	294.5
Average performance			20.5	98.4	17.6	3.0	24.1	98.5	373.3

* Link Sires: Sires evaluated by the site to provide links between years and sites so that the all site results can be combined into a single report – *Merino Superior Sires*

^ Y = Yearling (300 to 400 days); H = Hogget (400 to 540 days); A = Adult (540 days and older)

Note: Information on how to use the results in the table above can be found on page 7.

Table 3a – Visual trait assessments – Wool Quality

Wool Quality trait scores are reported as the sire's average (Av) score and the percentage of a sire's progeny for each score.

Sire Code	Wool Quality																	
	Colour						Wool Character						Staple Weathering					
	Av	1	2	3	4	5	Av	1	2	3	4	5	Av	1	2	3	4	5
1*	2.9	0	23	67	10	0	2.9	7	20	53	20	0	2	7	87	7	0	0
2	2.7	0	33	64	3	0	2.7	9	24	52	15	0	2	12	79	9	0	0
3	2.7	0	33	61	6	0	2.6	15	30	36	15	3	1.9	9	88	3	0	0
4	3.3	0	5	63	28	5	3.3	0	12	44	44	0	2	9	81	9	0	0
5	3.1	0	15	60	25	0	3.2	3	13	45	38	3	2.1	3	85	10	3	0
6	2.7	0	40	57	0	3	2.7	3	50	27	13	7	2.3	3	80	10	0	7
7*	2.7	4	31	54	12	0	2.9	0	35	42	23	0	2	4	96	0	0	0
Av	2.9	0.6	25.7	60.9	12.0	1.1	2.9	5.3	26.3	42.7	24.0	1.9	2.0	6.7	85.1	6.9	0.4	1.0

* Link Sires: Sires evaluated by the site to provide links between years and sites so that the all site results can be combined into a single report – *Merino Superior Sires*.

^ Y = Yearling (300 to 400 days); H = Hogget (400 to 540 days); A = Adult (540 days and older).

Note: Information on how to use the results in the table above can be found on page 8.

Table 3b – Visual trait assessments – Conformation and Pigmentation

Conformation trait scores are reported as the sire's average (Av) score and the percentage of a sire's progeny for each score. Jaw, back/shoulders and pigmented traits are reported as the number of progeny with a negative (Neg) expression of the trait.

Sire Code	Conformation													Pigmentation			
	Face Cover						Feet and Legs						Jaw	Back/Shoulder	Black Lamb	Wool	Skin
	Av	1	2	3	4	5	Av	1	2	3	4	5	Neg	Neg	Neg	Neg	Neg
1*	2	33	33	33	0	0	2.1	17	60	23	0	0	0	0	0	0	0
2	2.4	12	45	39	0	3	2	15	67	18	0	0	0	0	0	0	2
3	2.7	6	33	48	6	6	2.1	6	85	6	3	0	2	0	0	0	0
4	1.1	86	14	0	0	0	1.6	49	47	5	0	0	0	0	0	0	0
5	1.9	23	60	18	0	0	2.1	10	68	23	0	0	0	0	0	0	2
6	2.2	23	37	33	7	0	2.4	3	67	23	3	3	0	0	0	0	1
7*	2	31	38	31	0	0	2.3	8	54	35	4	0	0	0	0	0	0
Av	2.0	30.6	37.1	28.9	1.9	1.3	2.1	15.4	64.0	19.0	1.4	0.4	0.3	0.0	0.0	0.0	0.7

* Link Sires: Sires evaluated by the site to provide links between years and sites so that the all site results can be combined into a single report – *Merino Superior Sires*.

^ Y = Yearling (300 to 400 days); H = Hogget (400 to 540 days); A = Adult (540 days and older).

Note: Information on how to use the results in the table above can be found on page 8.

Table 3c – Visual trait assessments – Breech Scores

Conformation trait scores are reported as the sire's average (Av) score and the percentage of a sire's progeny for each score.

Sire Code	No. of Progeny	Visual Traits					
		Breech Cover					
		Av	1	2	3	4	5
1*	30	3.2	0	7	67	27	3.2
2	33	3.2	0	6	73	21	3.2
3	33	3.4	0	3	58	39	3.4
4	43	2.7	2	40	49	9	2.7
5	40	3.5	0	0	55	45	3.5
6	30	3.4	0	7	43	50	3.4
7*	26	3.5	0	4	42	54	3.5
Av		3.2	0.3	9.4	55.2	35.1	3.2

* Link Sires: Sires evaluated by the site to provide links between years and sites so that the all site results can be combined into a single report – *Merino Superior Sires*.

^ Y = Yearling (300 to 400 days); H = Hogget (400 to 540 days); A = Adult (540 days and older).

Note: Information on how to use the results in the table above can be found on page 8.

Table 4 – Sire averages for measured traits

Sire code	Sire name	Number of progeny	Sire averages for measured traits (deviations)									
			H ^A GFW	HCFW	HFD	HWT	HFDCV	HSL	HSS	HCURV	HFAT	HEMD
			%	%	µm	kg	%	mm	N/ktex	deg	mm	mm
1*	Ag WA Baseflock, 20002058	30	0.0	0.2	0.4	-1.0	-1.5	2.2	5.2	-4.1	0.1	1.1
2	Dabrappy, 48	36	0.0	0.0	-0.6	-0.4	-0.8	-2.1	-0.8	-0.6	-0.2	-0.3
3	Ejanding Poll, 045218	33	-0.2	-0.1	-0.4	-3.6	1.8	-5.3	-3.4	-5.1	-0.5	-2.4
4	Madrino, Afrino 363	43	-1.1	-0.9	1.4	3.9	-2.6	-3.1	8.6	11.9	0.4	1.8
5	Mulureen Merinos Poll, E3173	42	0.2	0.0	0.1	0.4	0.1	2.5	-3.3	-2.6	0.2	0.8
6	Shahs, WH76	31	0.5	0.5	-0.3	0.9	0.6	7.8	-1.1	-4.0	-0.2	-1.1
7*	The Grange, 303251	26	0.5	0.3	-0.6	-0.1	2.4	-2.1	-5.3	4.6	0.2	0.2
Average performance			4.3	3.0	17.7	48.8	20.5	98.4	17.6	98.5	3.0	24.1

* Link Sires: Sires evaluated by the site to provide links between years and sites so that the all site results can be combined into a single report – *Merino Superior Sires*.

^ Y = Yearling (300 to 400 days); H = Hogget (400 to 540 days); A = Adult (540 days and older).

Note: Information on how to use the results in the table above can be found on the bottom of page 7.

Badgingarra 2006 Drop