# Elders Victoria Sire Evaluation Group

# Central Test Sire Evaluation

## 2008 First & Final Assessment

**Conducted by**
Elders Victoria Sire Evaluation Group

**under the auspices of**

**The Australian Merino Sire Evaluation Association**

**with support from**

**Gold Sponsor:**

**Bronze Sponsors**:

July 2010

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# Foreword

**Elders Victoria Sire Evaluation Group Central Test Sire Evaluation**

The Elders Victoria Sire Evaluation 2008 drop first and final assessment is an accredited Central Test Sire Evaluation (CTSE) site evaluation. It conforms to the requirements of the Australian Merino Sire Evaluation Association (AMSEA).

*The Elders Victoria Sire Evaluation Trials aim to evaluate and promote leading sires suited to fine wool production in Western Victoria.*

*This goal is achieved by informing participants, their clients and interested woolgrowers on events surrounding the trials and in addition to this; produce and distribute annual reports and periodic newsletters. To further promote the evaluation, displays of progeny, data and their fleeces have been on show at the Australian Sheep & Wool Show (1998-2009), Balmoral and Horsham Shows and Hamilton Sheepvention. Participating studs have also provided static displays for viewing during field days. Since April 2000 successful annual Open Days have been held at "The Mountain Dam", "Kerrsville", "White Oaks", "Arundale", "Tuloona" and "Mokanger" to inspect progeny and to discuss the sire evaluation program with interested woolgrowers.*

*Prior to 1998, there were three previous trials in the Balmoral/Hamilton district, which are recorded in Merino Superior Sires as B95, HT93, HT94. In 1998 a small group of stud breeders met to form what is now known as the Elders Victoria Sire Evaluation Group. The Sire Evaluation Trials commenced in 1998 and there are now 11 progeny drops: 1998 -2008. All trials are run for a minimum of 2 years.*

*The 1998 drop wethers continued to be assessed for the further 2 years (a total of 4 assessments) outside the Central Test Evaluation program as part of a PIRD (Producer Initiated Research Development) Program which determined that mature age assessments averaged across each sire group provide similar information to the two-year trial data and in particular show clear trends and confidence with the second year assessment information.*

**At the commencement of the 2008 progeny trial the committee decided as a means of continuing the trials and to lessen the increasing burden that future trials commencing with the 2008 drop would continue as usual over the 2 year period but would have only one major classing and fleece assessment, to be taken at the usual time of the 2nd assessment. The cost and time benefits have been significant whilst still providing all involved with invaluable information on the progeny in the trial.**

- 1998 & 1999 drop – Host property "The Mountain Dam", Balmoral
- 2000 & 2002 drop - Host property "Kerrsville", situated between Balmoral and Coleraine
- 2002 & 2003 drop – Host property "White Oaks", Gringegalgona Merino Stud at Balmoral.
- 2004 & 2005 drop – Host property "Arundale", Balmoral
- 2006 & 2007 drop – Host property "Tuloona", Harrow
- 2008 & 2009 drop – Host property "Mokanger, Cavendish
- 2010 drop – Host property "Yiddinga", Edenhope

*Planning and direction is developed by the Elders Victoria Sire Evaluation Management Committee.*

**Host Properties**

- The 2008 drop evaluation was hosted at "Mokanger", Cavendish. (See page 6 for more detail)
- Evaluations have been held on privately owned host properties around the Balmoral district progressing to a new property every two years. Host properties run Australian Merino fine wool ewes with genetics suitable for the district's environment.

Thank you to our hosts, sponsors, committee and participants for enabling this valuable assessment of Merino genetics.

Tom Silcock
Chairman Elders Victoria Sire Evaluation Group
1st July 2010

**Vale Tom Hanson, MB, BS FRACP, OA**

It is appropriate that those involved in merino breeding and sire evaluation acknowledge the contribution of the late Dr Tom Hanson to our industry.

Not only was Tom held in high esteem by colleagues, he was also a good friend to many, a good listener and with respected sound advice.

Prior to his entry into the Merino industry in the 1980s, Tom was a noted medical professional in the area of pathology in both Australia and USA.

Tom and his wife, Beverley, founded the Windarra Merino Stud at Willalooka SA in 1988. As an enthusiastic adopter of scientific analysis combined with visual appraisal, Tom was one of the early members of Merino Benchmark. Over the years this evaluation followed on with participation in the Australian Merino Sire Evaluation trials, benchmarking the Windarra stud and membership of the national Sheep Genetics Australia.

Tom's wisdom and thoughtful contribution was also sought at national level with OJD, as well as at state level as President of the SA Stud Merino Breeders.

Tom received the Order of Australia for his contribution to the Merino industry and fundraising for children's medical research.

Marion Gibbins

## Current Management Committee

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## 2008 drop 1st & Final Assessment

The information in this site evaluation report provides a comprehensive assessment of the 2008 drop, a single and final Assessment of the sire's progeny performance, both measured and visually assessed traits. The fleece assessment was made at 18 months of age with 12 months of wool growth.

Three graphs and a table provide a summary of the results. Eight tables provide the detailed performance information.

## Contents

## Sire and owner details

Elders Victoria Sire Evaluation 2008 drop 1st and final assessment, 19 months of age, 11 months wool growth.

**Sire and owner details**

| Ram code | Breeders flock, Ram number<br>Ram ID [#], Breed [†] | Contact name, address<br>Phone, fax, email |
|---|---|---|
| 1 | Avington, 06-047<br>5049022006006047, Merino | Noel & Lindsay Henderson, 504 Sidonia Rd Sidonia Vic 3444<br>P 03 5423 7100 F 03 5423 7101<br>(manager)E geoff.hillman@avingtonfarm.com |
| 2 * | Bindawarra, 1143 [†*]<br>5039822001011143, Merino | Richard Alexander, Goodwood, Pattisons Lane,Glenthompson Vic 3293<br>P 03 5577 8265 F 03 5577 8256 |
| 3 * | Centre Plus Poll , 107351<br>6012502001107351, Merino | William Harvey, Centre Plus WA, RMB 156, Kojonup WA 6395<br>P 08 9832 3017 F08 9832 3037 E jecky@wn.com.au |
| 4 | Connewarran, 227<br>5047042004000227, Merino | Richard Weatherly, Connewarran, PO Box 21, Mortlake Vic 3272<br>P 03 5599 7276 F03 5599 7227 E connewarran@westvic.com.au |
| 5 * | Cressbrook, 06/580<br>5023022006006580, Merino | Lach & Olivia Fulloon, 437 Enmore Rd, Armidale NSW 2350<br>P 02 6775 1217 F 02 6775 1341 E cressbrk@bigpond.com |
| 6 | Currawong, White 1267<br>5039532003031267, Merino | Geoffrey & Heather Phillips, 124 Phillips Bros Rd, Tatyoon Vic 3378<br>P 03 5354 0590 F 03 5354 0590 E currawong@activ8.net.au |
| 7 | Glendemar, 1453<br>5030702005051453, Merino | Dwain Duxson, RMB 4062, Stawell Vic 3380<br>P 03 5359 2292 F 03 5359 2342 E dawin@glendemar.com.au |
| 8 | Gringegalgona, 051021<br>5030972005051021, Merino | Stephen Silcock, 279 Melville Forest-Vasey Road, Vasey Vic 3407<br>P 03 5574 3202 F 03 5574 3239 E sjsilcock@bigpond.com |
| 9 | Kerrsville Poll, GL5584<br>6012172005005584, Merino | Robert Plush, 1885 Coleraine Edenhope Road, Coleraine Vic 3315<br>P 03 5575 0208 F 03 5575 0208 E rjplush@bigpond.com |
| 10 [UR] | Kooringal, 2521<br>5041702005052521, Merino | Mark Bunge, 2115 Coleraine Edenhope Road, Coleraine Vic 3315<br>P 03 5579 7224 F 03 5579 7225 E kooringal@clearmail.com.au |
| 11 | Kurra-Wirra, SR3536<br>50 41732006SR3536, Merino | Robert Close, 770 Moree Culla Road, Coleraine Vic 3315<br>P 03 5570 4238 F 03 5570 4234 E kurrawirra@bigpond.com |
| 12 | Mokanger, Y29<br>5048882005000029, Merino | Mark Rayner, Mokanger Pastoral Co, Cavendish Vic 3314<br>(Manager – Shane Arnold) P 03 5574 2367 F 03 5574 2328<br>E mokanger2@bigpond.com |
| 13 | Pendarra, 278<br>5048682006060278, Merino | Rory Blandford, RMB 1500, Stratford Vic 3862<br>P 03 5157 8241 |
| 14 | The Mountain Dam 02/NW113<br>5045722002NW0113, Merino | Tom & Alison Silcock, The Mountain Dam, 429 Silcocks Road, Telangatuk East Vic 3401<br>P 03 5388 2238 F 03 5388 2235 E themountaindam@bigpond.com |
| 15 * | Windarra, 04/0236<br>5043382004040236, Merino | The late Dr. Tom Hanson<br>(Manager – Duncan Pixley) P 08 87573023 E windarra@lm.net.au |
| 16 * | Yalgoo, 188<br>5015522006060188, Merino | Grant Nivison, Yalgoo, PO Box 141, Walcha NSW 2354<br>P 02 6777 2525 F 02 6777 2875 E gnivison@bigpond.com |
| 17 [UR] | Yiddinga, BLK80<br>5092422005050480, Merino | Yiddinga Holdings P/LPO Box 222, Edenhope Vic 3318<br>(Manager - James Farran) P 03 5585 1888 F 03 5586 6214 E jim.farran@bigpond.com |

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

UR Unregistered Flock. Sires bred in an unregistered flock are identified in the table by a UR following the sire's code.

\# 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), Dohne (51), SAMM (48), Afrino (AF)
- 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.

† Breed of flock in which the sire was born

†* Bindawarra, 1143 – This sire has also previously been reported as Goodwood BW1143/01 and is Bindawarra bred.

## Managers Report

**Host Property for 2008 drop progeny and Location**

- The property of "Mokanger" is owned by Mark and Caroline Rayner and managed by Shane Arnold. Located approximately 10 kilometres east of the Cavendish township on the Wannon River, the soil type is varied ranging from sandy to clay loams. Strong management emphasis is placed on improved pastures for efficient grazing conversion.
- Average annual rainfall is approximately 565mm

**Selection and mating**

- The Mokanger ewes selected by the committee formed an even line of mature mixed age commercial 17-18 micron ewes based on Mokanger, Yalgoo and Cressbrook genetics.
- The average adult flock micron at "Mokanger" in 2008 was 17.0 micron.
- Laparoscopic insemination of 952 ewes was conducted by Brecon Breeders on 9th and 10th April 2008 with 56 ewes allocated to each sire.
- 17 sires participated in the site evaluation.
- All ewes were in condition score 3 at the time of insemination.

**Pregnancy and lambing**

- Ultrasound scanning of ewes on 11th June 2008 was carried out by Sam Plush with 78% of ewes scanned in lamb with a total of 126% possible lambs.
- Single and twin bearing ewes were run in two separate mobs and then drafted into 34 sire paddocks on 29th August 2008 ready for lambing.
- A total of 841 lambs were double tagged (RFID tag and a numbered sire tag) on 18th and 19th September and recorded for birth type, sex, breech cover and wrinkle, skin and fibre pigment, black spots, hairy birth coat and entropian. There were 272 single lambs and 569 twin lambs recorded; 406 females and 435 males. (Due to the tough season earlier in the year a decision was made by the Committee to remove 18 ewes prior to lambing from the trial that were scanned with triplets or quads.)
- Lambs were then run as one management group for the duration of the trial.
- Ewes were run on 2000kg/Ha DM whilst lambs were on ewes in condition score 3+.

**Weaning and seasonal conditions**

- Lambs were marked and mulesed on 5 November 2008
- A total of 800 lambs were weaned on 8 December 2008 with an average weaning weight of 22.3kgs.
- Lambs were weaned onto lucerne and chicory paddocks with supplementary feeding of barley and lucerne silage during the summer at rates dependent on pasture growth.
- After weaning progeny were shorn for an even up shearing on 25 May 2009.

**Assessments**

- Yearling body weights were taken by the committee on 22 September 2009.
- WECS were collected by the committee on 22 July 2009 and processed by Dr David Rendell
- Visual classing was undertaken by Elliot Lindley of Elders
- Fleece midside samples were processed by Paul Cocking of Riverina Wool Testers

**Rainfall**

- The following rainfall records have been kept and maintained by Mokanger.

| | Mokanger, Cavendish, Victoria Rainfall (mm per month) * | | | | | |
|---|---|---|---|---|---|---|
| Month | 2005 | 2006 | 2007 | 2008 | 2009 | Average |
| January | 27.5 | 25.5 | 87.0 | 26.5 | 2.5 | 33.8 |
| February | 56.5 | 30.5 | 5.5 | 10.0 | 0 | 20.5 |
| March | 10.0 | 12.5 | 12.0 | 21.0 | 48.5 | 20.8 |
| April | 27.5 | 46.0 | 51.5 | 24.0 | 30.5 | 35.9 |
| May | 15.5 | 50.0 | 96.0 | 31.0 | 54.0 | 49.3 |
| June | 60.5 | 7.5 | 45.0 | 24.5 | 60.0 | 39.5 |
| July | 22.5 | 41.0 | 59.0 | 81.0 | 65.5 | 53.8 |
| August | 88.5 | 33.0 | 35.0 | 63.0 | 72.5 | 58.4 |
| September | 33.5 | 51.0 | 57.0 | 43.5 | 51.0 | 47.2 |
| October | 89.5 | 12.0 | 19.0 | 8.0 | 7.0 | 27.1 |
| November | 34.0 | 14.0 | 89.0 | 32.0 | 46.2 | 43.0 |
| December | 41.0 | 14.5 | 68.0 | 95.0 | 37.4 | 51.2 |
| Total | 506.5 | 337.5 | 624.5 | 459.5 | 475.1 | 480.6 |

* Source: “Mokanger”

**Reported by: Shane Arnold**

## Assessment and management program

| Activity | | Date/s | Age (months) | Wool (months) |
|---|---|---|---|---|
| Selection of ewes | | February | | |
| Allocation of ewes for mating and mating | | 9 -10 April 2008 | | |
| Pregnancy scanning | | 11 June 2008 | | |
| Separated into sire lambing groups | | 28 August 2008 | | |
| Lambing: start – finish | | 1-7 September 2008 | | |
| Lambing mobs boxed to one management group | | 18-19 September 2008 | 14 days | |
| Tagging/pigment/breech scores | | 18-19 September 2008 | 14 days | |
| Marked/mulesed | | 5 November 2008 | 60 days | |
| Weaning | | 8 December 2008 | 90 days | |
| Pre assessment (even-up) shearing | | 25 May 2009 | 8 months | 8 months |
| Crutching | • 1st: | 12 April 2010 | 19 months | 11 months |
| Fat and eye muscle scanning and body weight | | Not applicable | | |
| Fleece sampling including length & strength | • 1st Assessment: | 15 March 2010 | 18 months | 10 months |
| Classer's Grade | • 1st Assessment: | 15 March 2010 | 18 months | 10 months |
| Pre shearing scoring | • 1st Assessment: | Not applicable | | |
| Assessment shearing | • 1st Assessment: | 20 April 2010 | 19 months | 11 months |
| Post shearing scoring | • 1st Assessment: | Not Applicable | | |
| Body weight | • Weaning<br>• 1st Assessment:<br>• 2nd Assessment: | 8 December 2008<br>22 September 2009<br>28 April 2010 | 90 days<br>12 months<br>19 months | |
| Worm egg count sampling | • 1st Assessment: | 27 July 2009 | 10 months | |
| Sire's Progeny Group Evenness assessment | | Not applicable | | |
| Vaccination | Marking | | | |
| Drench | May 2009, Sept 2009, Feb 2010 | | | |
| Jetting | Sept 2009 (Vetrazin on crutch area),Feb 2010 (Vetrazin on backs) | | | |
| Supplementary feeding: | Lucerne/chicory pasture with barley/lucerne silage (see report above) | | | |
| Field day or public display of sheep | ■ 2009 Field Day & Progeny Display at Mokanger – April 2009<br>■ 2010 Field Day & Progeny Display at Mokanger – April 2010<br>■ 2009 Display at Sheepvention – August 2009<br>■ 2009 Display at Balmoral Show – March 2009<br>■ 2010 Progeny Display at Balmoral Show – March 2010 | | | |

## Visual trait assessment and site Breeding Objective

### Visual trait assessment

1st and final assessment

Classer's Grade: Mr Elliot Lindley, Elders
Trait Scores: Committee

### Site Breeding Objective used to assess the 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 that is described below was developed by the site committee in consultation with the classer prior to the grading.

Breeding Objective

The goal is to select sheep that are well grown, with sound conformation and carrying heavy fine wool fleeces of good character, colour and nourishment.

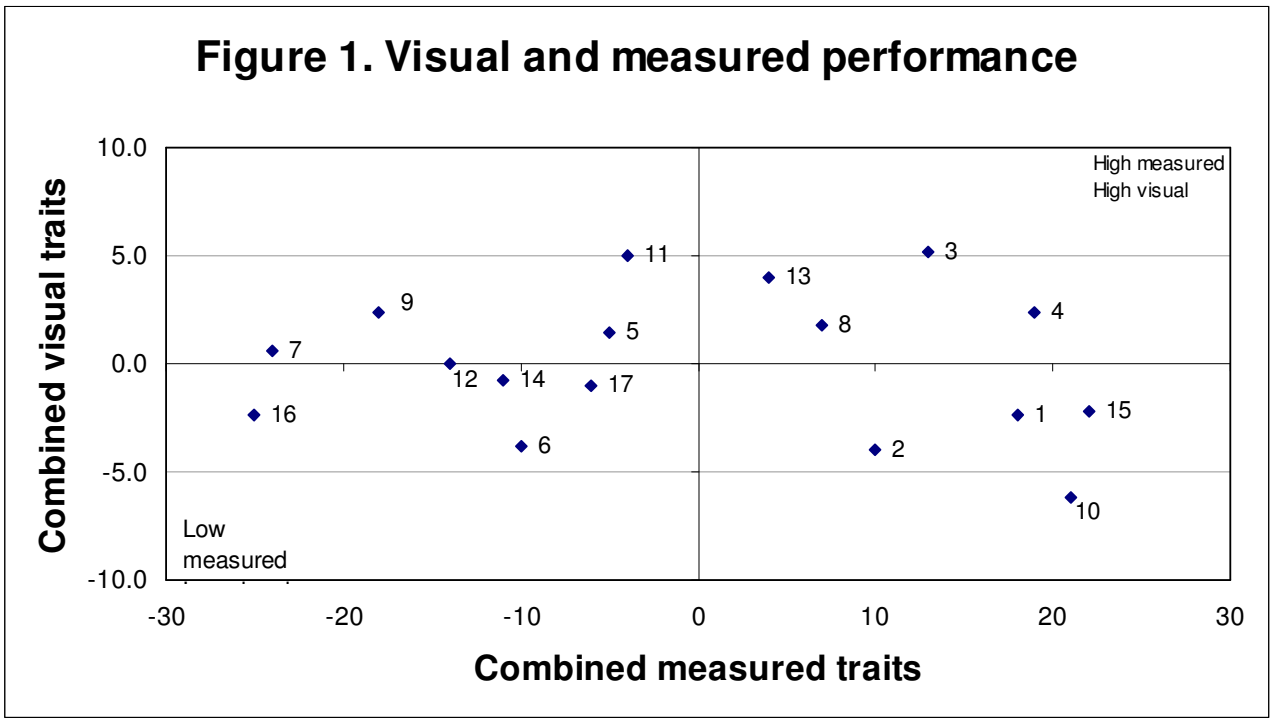
## Figure 1. **Combined measured traits and visual trait performance**

**Summary graph: visual and measured performance**

Each sire that had 20 or more progeny assessed at assessment is located on the graph. The graph describes performance for combined measured traits and combined visual assessment.

**Figure 1 is combined measured traits based on an AMSEA <u>Merino 7% index</u>** (that is equal emphasis on fleece weight and fibre diameter with enough emphasis on body weight to provide a moderate increase in this trait). Visual trait performance is a combination of Classer's Grade performance (Tops and Culls). More information is found in "Understanding the Results" (pages 22-23).

Sires that are above average performers for combined measured traits and Classer's Grade are located in the <u>top right hand quarter</u>.




| **Rams reported in Figure 1 above** | |
|---|---|
| Ram code | Breeders flock, Ram number |
| 1 | Avington, 06-047 |
| 2 * | Bindawarra, 1143 †* |
| 3 * | Centre Plus Poll , 107351 |
| 4 | Connewarran, 227 |
| 5 * | Cressbrook, 06/580 |
| 6 | Currawong, White 1267 |
| 7 | Glendemar, 1453 |
| 8 | Gringegalgona, 051021 |
| 9 | Kerrsville Poll, GL5584 |
| 10 UR | Kooringal, 2521 |
| 11 | Kurra-Wirra, SR3536 |
| 12 | Mokanger, Y29 |
| 13 | Pendarra, 278 |
| 14 | The Mountain Dam 02/NW113 |
| 15 * | Windarra, 04/0236 |
| 16 * | Yalgoo, 188 |
| 17 UR | Yiddinga, BLK80 |

## Table A. **AMSEA Index values and Classer's Grade**

The highest performing 3 sires for each trait (i.e., trait leaders) are highlighted by shading, eg. In the table below see Sire 3 has 19% above average for Tops% .
Each sire is listed for Classer's Grade and the same three indexes at all site evaluations. An additional index (Merino 20%+SS) considered relevant to the site evaluation is also reported.

The index values reported are based on measured traits FBV performance with varying the emphasis on fleece weight, fibre diameter, body weight, staple strength and worm egg count. See 'Index Options' on page 22 for more information on the indexes presented in the table below.

AMSEA Indexes are the same as MERINOSELECT Indexes apart from NLW (Number of Lambs Weaned) being given a zero FBV value in AMSEA calculations.

- **Merino 14% +SS** High emphasis on fibre diameter and low emphasis on fleece weight plus moderate emphasis on live weight and staple strength.
- **Fine 10% +SS** Moderate emphasis on fleece weight and fibre diameter plus moderate emphasis on staple strength.
- **Dual Purpose 7%** Moderate emphasis on fleece weight and fibre diameter plus high emphasis on live weight.
- **Fine Merino 20%+SS** High emphasis on fibre diameter and staple strength plus adequate emphasis on other traits to be maintained, except a reduction in NLW.

| Ram code | Ram name | AMSEA Indexes values | | | | Classer's Grade | |
|---|---|---|---|---|---|---|---|
| | | *Merino 14% SS* | *Fine 10% SS* | *Dual Purpose 7%* | *Fine Merino 20%SS* | Tops % (dev) Adult | Culls % (dev) Adult |
| 1 | Avington, 06-047 | 114 | 121 | 112 | 115 | -6 | 6 |
| 2 * | Bindawarra, 1143 | 108 | 111 | 103 | 107 | -9 | 11 |
| 3 * | Centre Plus Poll, 107351 | 110 | 109 | 128 | 105 | 19 | -7 |
| 4 | Connewarran, 227 | 109 | 119 | 110 | 108 | 5 | -7 |
| 5 * | Cressbrook, 06/580 | 103 | 101 | 88 | 109 | 3 | -4 |
| 6 | Currawong, White 1267 | 105 | 98 | 88 | 114 | -13 | 6 |
| 7 | Glendemar, 1453 | 76 | 63 | 105 | 68 | -7 | -10 |
| 8 | Gringegalgona, 051021 | 102 | 105 | 114 | 100 | 7 | -2 |
| 9 | Kerrsville Poll, GL5584 | 84 | 80 | 90 | 85 | 7 | -5 |
| 10 UR | Kooringal, 2521 | 114 | 122 | 112 | 113 | -12 | 19 |
| 11 | Kurra-Wirra, SR3536 | 97 | 97 | 93 | 99 | 18 | -7 |
| 12 | Mokanger, Y29 | 107 | 97 | 79 | 118 | -1 | -1 |
| 13 | Pendarra, 278 | 93 | 99 | 109 | 89 | 13 | -7 |
| 14 | The Mountain Dam, 02/NW113 | 82 | 84 | 88 | 78 | -10 | -6 |
| 15 * | Windarra, 04/0236 | 106 | 118 | 113 | 99 | -5 | 6 |
| 16 * | Yalgoo, 188 | 97 | 84 | 75 | 107 | -10 | 2 |
| 17 UR | Yiddinga, BLK 80 | 91 | 91 | 93 | 86 | -1 | 4 |
| Average performance | | 100 | 100 | 100 | 100 | 13 | 12 |

* Link ram: Ram evaluated to provide links between site evaluations and sites so that the all site results can be combined into a single report, e.g., *Merino Superior Sires.*

UR Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

^ A = Adult (540 days and older).

**Figure 2. Fleece weight by fibre diameter**
The graph describes performance for fleece weight on the side axis and fibre diameter on the bottom axis. Rams that are above average for fleece weight and below average fibre diameter are located in the top left hand quarter.

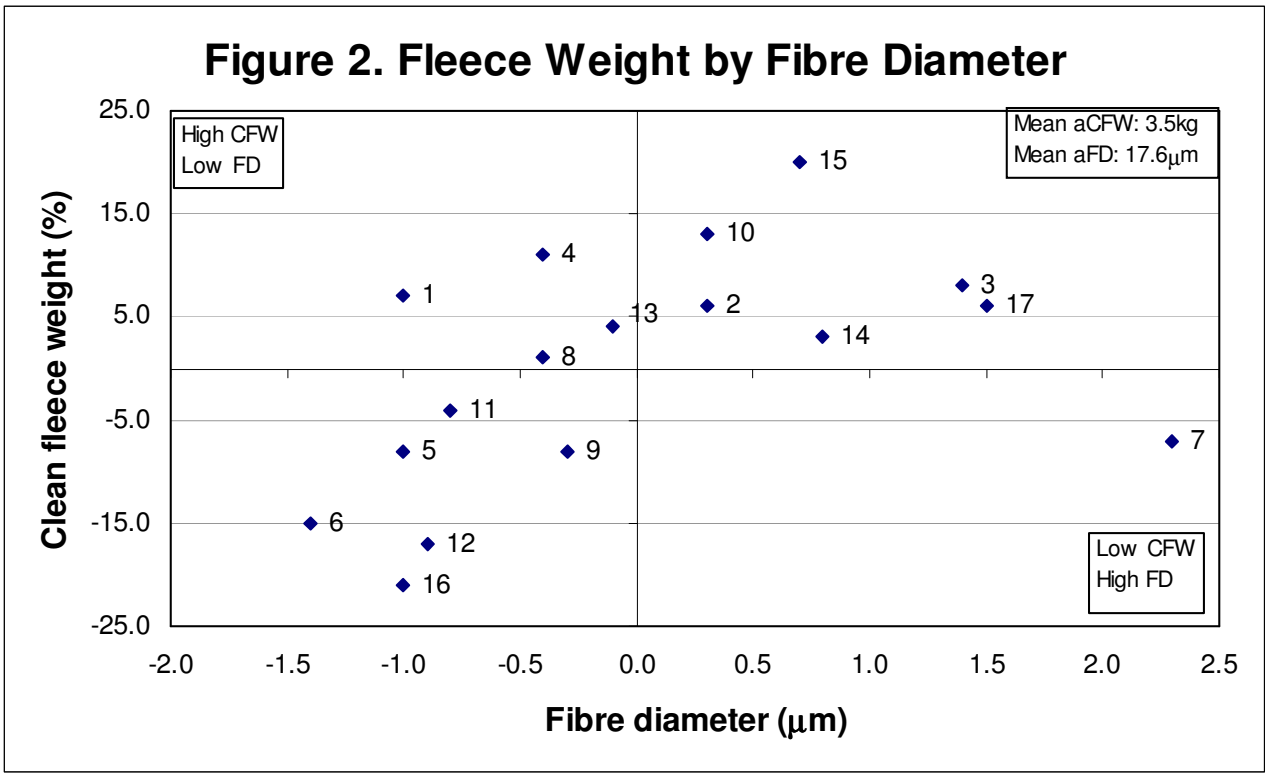
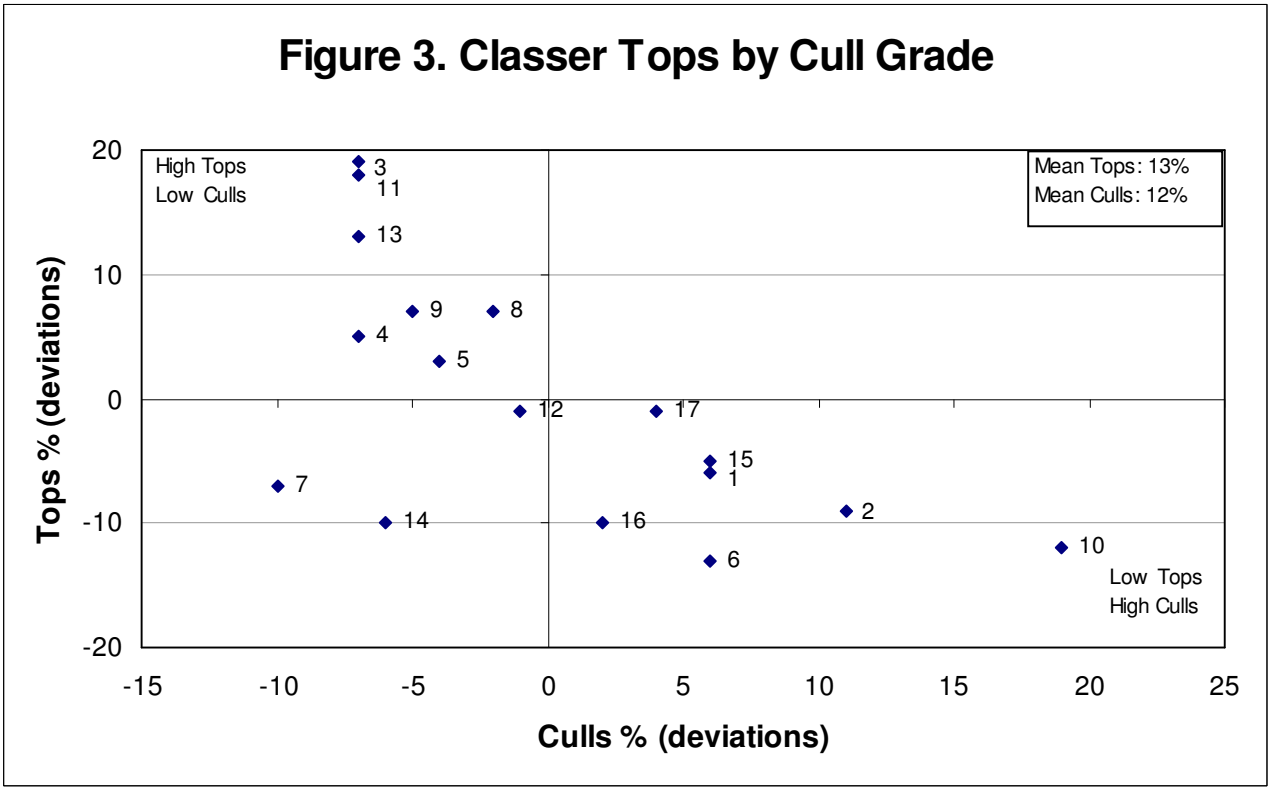



**Figure 3. Classers Tops by Cull Grade**
The graph describes performance for Classer's Tops Grade on the side axis and Cull Grade on the bottom axis. Rams that have above average Tops and below average Culls are in the top left hand quarter.



## Understanding the results

**Measured trait performance and Classer's Grade** – Tables 1 and 2 – pages 14 and 15

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**Ram code:** Allows a ram to be located on the summary graphs and some tables.

**Ram name:** Identity of the breeder's flock and the ram's number or name.

**No. of progeny:** The number of progeny a ram had at the most recent measured analysis.

**Flock Breeding Values:** Flock Breeding Values (FBVs) are Estimated Breeding Values (EBVs) calculated by Sheep Genetics for the ram's evaluated in this report. Only data from this site evaluation is used in the calculation of these FBVs. FBVs describe the relative breeding value (genetic performance) of the rams (in this case based on the performance of their progeny). A ram's progeny will express half of their ram's FBV. FBVs do not necessarily reflect the rams observed performance, which is a combination of both genetic and environmental influences. FBVs are an estimate of the genetic component of the sheep's performance.

**Traits:**

Abbreviation, trait and the (units reported)

| | |
|---|---|
| GFW: | Greasy fleece weight (percentage). |
| CFW: | Clean fleece weight (percentage). |
| FD: | Average fibre diameter (micron). |
| WT: | Body weight (kilograms). |
| FDCV: | Fibre diameter coefficient of variation (percentage). |
| SL: | Staple length (mm) at the mid-side. |
| SS: | Staple strength (N/ktex) at the mid-side. |
| EMD: | Eye muscle depth (mm) at the 'C' site. |
| FAT: | Fat depth (mm) at the 'C' site. |
| CURV: | Fibre curvature (degrees). |
| WEC: | Worm egg count (% deviation in worm burden of ram's progeny). |

**Age at assessment:**

| | |
|---|---|
| Y = Yearling | - 300 to 400 days (10 to 13 months of age). |
| H = Hogget | - 400 to 540 days (13 to 18 months of age). |
| A = Adult | - 540 days or older (18 months and older). |

**Classer's 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 (page 9). The percentage deviation from the average of Tops and Culls is presented in this report.

## Table 1. **Major measured traits and Classer's Grades**

| Ram code | Ram name | Number of progeny | Flock Breeding Values (deviations) | | | | | | Classer's Grade[1] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | GFW % | CFW % | FD µm | WT kg | | | Tops % (dev) | Culls % (dev) |
| | | | A | A | A | W | Y | A | A | A |
| 1 | Avington, 06-047 | 48 | 6 | 7 | -1.0 | -1.1 | -0.7 | -2.7 | -6 | 6 |
| 2 * | Bindawarra, 1143 | 49 | 5 | 6 | 0.3 | 0.6 | -0.4 | -0.5 | -9 | 11 |
| 3 * | Centre Plus Poll, 107351 | 47 | 9 | 8 | 1.4 | 2.9 | 6.4 | 7.4 | 19 | -7 |
| 4 | Connewarran, 227 | 60 | 10 | 11 | -0.4 | -0.8 | -0.9 | -0.7 | 5 | -7 |
| 5 * | Cressbrook, 06/580 | 55 | -8 | -8 | -1.0 | -1.0 | -3.1 | -3.6 | 3 | -4 |
| 6 | Currawong, White 1267 | 50 | -14 | -15 | -1.4 | -0.7 | -2.1 | -2.6 | -13 | 6 |
| 7 | Glendemar, 1453 | 57 | -6 | -7 | 2.3 | 3.6 | 8.3 | 10.6 | -7 | -10 |
| 8 | Gringegalgona, 051021 | 31 | 1 | 1 | -0.4 | 1.2 | 3.3 | 4.9 | 7 | -2 |
| 9 | Kerrsville Poll, GL5584 | 46 | -7 | -8 | -0.3 | 0.9 | 1.5 | 2.1 | 7 | -5 |
| 10 UR | Kooringal, 2521 | 49 | 11 | 13 | 0.3 | -0.6 | -1.9 | -2.4 | -12 | 19 |
| 11 | Kurra-Wirra, SR3536 | 34 | -4 | -4 | -0.8 | -0.9 | -1.3 | -2.3 | 18 | -7 |
| 12 | Mokanger, Y29 | 51 | -16 | -17 | -0.9 | -2.5 | -5.2 | -5.6 | -1 | -1 |
| 13 | Pendarra, 278 | 49 | 3 | 4 | -0.1 | 0.7 | 3.4 | 4.7 | 13 | -7 |
| 14 | The Mountain Dam, 02/NW113 | 58 | 3 | 3 | 0.8 | -0.3 | -1.4 | -2.2 | -10 | -6 |
| 15 * | Windarra, 04/0236 | 41 | 20 | 20 | 0.7 | 1.3 | -0.4 | -1.2 | -5 | 6 |
| 16 * | Yalgoo, 188 | 57 | -20 | -21 | -1.0 | -2.3 | -4 | -3.8 | -10 | 2 |
| 17 UR | Yiddinga, BLK 80 | 55 | 5 | 6 | 1.5 | -0.7 | -1.2 | -2.2 | -1 | 4 |
| | Average performance | 49 | 4.7 kg | 3.5 kg | 17.6 µm | 22.3 kg | 37.1 kg | 34.9 kg | 13 % | 12 % |

* Link ram: Ram evaluated to provide links between site evaluations and sites so that the all site results can be combined into a single report, e.g., *Merino Superior Sires.*

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

UR Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

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

■ Information on how to use the results in the table above can be found on page 13.

## Table 2. **Other measured traits**

| Ram code | Ram name | Number of progeny | Flock Breeding Values (deviations) FDCV % A | SL mm A | SS N/ktex A | Curv deg/mm A | | WEC% Y |
|---|---|---|---|---|---|---|---|---|
| 1 | Avington, 06-047 | 48 | 1.4 | -5.1 | -1.2 | 4.5 | | 31 |
| 2 * | Bindawarra, 1143 | 49 | -0.5 | 3.4 | 3.1 | -5.5 | | 113 |
| 3 * | Centre Plus Poll, 107351 | 47 | -1.3 | 6.8 | 8.4 | -5.4 | | -47 |
| 4 | Connewarran, 227 | 60 | 0.9 | -1.1 | -3.0 | -6.5 | | 23 |
| 5 * | Cressbrook, 06/580 | 55 | -0.6 | -1.7 | -0.9 | 3.9 | | 5 |
| 6 | Currawong, White 1267 | 50 | -0.9 | -11.0 | 0.7 | 14.6 | | -14 |
| 7 | Glendemar, 1453 | 57 | -1.4 | 18.0 | 3.3 | -9.4 | | -16 |
| 8 | Gringegalgona, 051021 | 31 | -0.2 | 7.5 | -4.3 | 0.2 | | 9 |
| 9 | Kerrsville Poll, GL5584 | 46 | 1.3 | -13.2 | -4.6 | 9.7 | | -13 |
| 10 UR | Kooringal, 2521 | 49 | -0.4 | 3.8 | 1.6 | -11.6 | | -57 |
| 11 | Kurra-Wirra, SR3536 | 34 | 0.9 | -5.6 | -3.7 | 6.4 | | 46 |
| 12 | Mokanger, Y29 | 51 | -2.4 | -2.1 | 4.5 | 2.5 | | -43 |
| 13 | Pendarra, 278 | 49 | 0.4 | -4.0 | -9.5 | 0.4 | | 87 |
| 14 | The Mountain Dam, 02/NW113 | 58 | 1.5 | 3.2 | -3.4 | -2.7 | | 6 |
| 15 * | Windarra, 04/0236 | 41 | 1.6 | 2.1 | 0.4 | -8.4 | | 30 |
| 16 * | Yalgoo, 188 | 57 | -1.3 | -0.7 | 4.0 | 9.2 | | -64 |
| 17 UR | Yiddinga, BLK 80 | 55 | 0.7 | 1.8 | 4.4 | -4.3 | | 21 |
| | Average performance | 49 | 17.2 % | 81.8 mm | 32.7 N/ktex | 103 deg/mm | | % |

* Link ram: Ram evaluated to provide links between site evaluations and sites so that the all evaluations can be combined into one report, e.g., *Merino Superior Sires.*

UR Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

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

■ Information on how to use the results in the table above can be found on page 13.

## Understanding the results

**Scored trait performance** – Tables 3a, 3b, 3c and 3e – pages 17 to 19

The following description of trait scores is a summary of the detailed word and diagrammatical description of these scores in the Visual Sheep Scores booklet (free on application to AWI 02 92995155).

A deviation from the average trait score for all progeny is reported as well as the percentage of the ram's progeny recorded for each trait.

| | |
|---|---|
| ■ Fleece rot: | 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: | Greasy wool colour scored from **1** (whitest) to **5** (yellow). |
| ■ Wool character: | 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: | Degree of dust penetration from **1** (only tip <5%) to **5** (80 to 100% of staple). |
| ■ Staple weathering: | The deterioration due to light and water from **1** (least, <5% of staple) to **5** (most, 30 to 50%) reflect the depth and degree of deterioration. |
| ■ Staple structure: | The size and diameter of each staple from **1** (<5mm) to **5** (30 to 50 mm) |
| ■ Face cover: | Wool cover on the face scored from **1** (open face) to **5** (fully covered face). |
| ■ Feet/Legs: | Conformation of feet and legs scored from **1** (very good) to **5** (very poor). |
| ■ Body wrinkle: | The degree of body wrinkle from **1** (no wrinkle) to **5** (extensive wrinkle). |
| ■ Jaw: | Under- or over-shot lower jaw (and teeth) relative to the top jaw. Three scores **1** (very well aligned), **3** (marginally under or over) and **5** (heavily under or over). |
| ■ Back/Shoulder: | Conformation of the back and shoulder from **1** (very good) to **5** (very poor). |
| ■ Fibre pigmentation: | The percentage of dark fibres on any part of the sheep from **1** (0 pigmented fibres at any site) to **5** (76 to 100% pigmented fibres at one or more sites). This trait does not include random spot or recessive black. |
| ■ Non-fibre pigmentation: | The percentage of pigmentation on the areas not shorn from **1** (0 pigmentation at any site) to **5** (76 to 100% pigmented area on one or more bare skin sites, **and/or** 76 to 100% of the total hoof area). |
| ■ Recessive black: (black) | Recessive black (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. |
| ■ 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. |
| ■ Breech cover | Size of natural bare area around the breech from **1** (large) to **5** (no bare). |
| ■ Crutch cover | Size of natural bare area in the pubic and groin from **1** (large) to **5** (no bare). |
| ■ Breech wrinkle | Degree of wrinkle at the tail set and kind legs from **1** (nil) to **5** (extensive). |
| ■ Dag | Degree of dag adhering to the breech and legs from **1** (nil) to **5** (extensive). |
| ■ Injury/Disease: | Non-genetic effects due to injury, misadventure or infection – Yes or No. |

## Table 3a. **Visual trait assessments – Wool quality**

Visually assessed traits reported in Tables 3a, b, c and d were scored at their final Assessment apart from pigmentation that was scored at tagging and breech traits.

Traits are reported as a deviation (Dev) from the average trait score for all progeny. The percentage of a ram's progeny assessed for each score is also reported.
For the majority of breeder's objectives a negative deviation would be considered favorable and the larger the deviation the better.

| | Wool Quality | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ram | Fleece Rot | | | | | | Wool Colour | | | | | | Wool Character | | | | | | Dust Penetration | | | | | |
| code | Dev | 1 | 2 | 3 | 4 | 5 | Dev | 1 | 2 | 3 | 4 | 5 | Dev | 1 | 2 | 3 | 4 | 5 | Dev | 1 | 2 | 3 | 4 | 5 |
| 1 | -0.1 | 82 | 7 | 9 | 0 | 2 | -0.2 | 0 | 70 | 30 | 0 | 0 | 0.1 | 0 | 32 | 59 | 9 | 0 | 0.0 | 0 | 16 | 68 | 16 | 0 |
| 2 * | 0.4 | 59 | 9 | 25 | 2 | 5 | 0.2 | 0 | 32 | 66 | 2 | 0 | 0.3 | 0 | 23 | 50 | 27 | 0 | 0.1 | 0 | 12 | 70 | 18 | 0 |
| 3 * | 0.2 | 68 | 2 | 24 | 3 | 3 | 0.2 | 0 | 39 | 59 | 2 | 0 | -0.2 | 0 | 56 | 41 | 3 | 0 | -0.3 | 0 | 39 | 56 | 5 | 0 |
| 4 | 0.1 | 71 | 11 | 13 | 0 | 5 | 0.0 | 2 | 47 | 51 | 0 | 0 | -0.1 | 4 | 44 | 45 | 7 | 0 | -0.3 | 1 | 35 | 53 | 11 | 0 |
| 5 * | -0.4 | 96 | 0 | 4 | 0 | 0 | -0.2 | 2 | 70 | 26 | 2 | 0 | 0.0 | 0 | 44 | 46 | 10 | 0 | 0.0 | 0 | 22 | 60 | 18 | 0 |
| 6 | -0.2 | 89 | 0 | 9 | 2 | 0 | -0.1 | 0 | 64 | 36 | 0 | 0 | -0.2 | 2 | 49 | 47 | 2 | 0 | 0.1 | 0 | 18 | 58 | 24 | 0 |
| 7 | 0.1 | 70 | 13 | 11 | 0 | 6 | 0.3 | 0 | 36 | 55 | 9 | 0 | 0.7 | 0 | 8 | 47 | 45 | 0 | 0.7 | 0 | 2 | 28 | 68 | 2 |
| 8 | -0.2 | 79 | 14 | 7 | 0 | 0 | 0.0 | 0 | 55 | 41 | 4 | 0 | 0.0 | 0 | 45 | 41 | 14 | 0 | -0.1 | 0 | 31 | 48 | 21 | 0 |
| 9 | -0.1 | 80 | 9 | 9 | 0 | 2 | -0.1 | 0 | 64 | 36 | 0 | 0 | -0.4 | 0 | 64 | 36 | 0 | 0 | -0.3 | 0 | 33 | 60 | 7 | 0 |
| 10 UR | 0.6 | 51 | 11 | 24 | 5 | 9 | 0.3 | 0 | 33 | 53 | 14 | 0 | 0.4 | 0 | 13 | 62 | 22 | 3 | 0.3 | 0 | 5 | 64 | 31 | 0 |
| 11 | -0.4 | 97 | 3 | 0 | 0 | 0 | -0.4 | 8 | 74 | 18 | 0 | 0 | -0.4 | 3 | 65 | 32 | 0 | 0 | -0.4 | 3 | 35 | 62 | 0 | 0 |
| 12 | -0.3 | 91 | 4 | 5 | 0 | 0 | -0.2 | 3 | 70 | 25 | 2 | 0 | -0.3 | 0 | 64 | 27 | 9 | 0 | -0.1 | 0 | 20 | 68 | 12 | 0 |
| 13 | -0.3 | 88 | 9 | 3 | 0 | 0 | -0.2 | 5 | 61 | 34 | 0 | 0 | -0.2 | 2 | 57 | 32 | 9 | 0 | -0.3 | 0 | 34 | 59 | 7 | 0 |
| 14 | 0.2 | 66 | 12 | 18 | 0 | 4 | 0.1 | 0 | 45 | 51 | 4 | 0 | 0.3 | 0 | 19 | 57 | 24 | 0 | 0.2 | 0 | 7 | 69 | 24 | 0 |
| 15 * | 0.6 | 51 | 6 | 38 | 0 | 5 | 0.4 | 0 | 22 | 73 | 5 | 0 | 0.0 | 0 | 41 | 51 | 8 | 0 | 0.0 | 0 | 13 | 73 | 14 | 0 |
| 16 * | -0.3 | 89 | 6 | 4 | 0 | 1 | -0.2 | 3 | 68 | 25 | 4 | 0 | -0.1 | 0 | 55 | 34 | 11 | 0 | 0.3 | 0 | 9 | 55 | 36 | 0 |
| 17 UR | 0.2 | 67 | 12 | 12 | 1 | 8 | 0.0 | 2 | 52 | 40 | 6 | 0 | 0.2 | 2 | 29 | 44 | 23 | 2 | 0.1 | 0 | 15 | 62 | 23 | 0 |
| Avg. | 1.5 | 76 | 8 | 13 | 0 | 3 | 2.5 | 2 | 53 | 42 | 3 | 0 | 2.7 | 1 | 42 | 44 | 13 | 0 | 3.0 | 0 | 20 | 60 | 20 | 0 |

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

UR Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

■ Information on how to use the results in the table above can be found on page 16.

## Table 3b. **Visual trait assessments – Wool quality and Pigment**

Traits are reported as a deviation (Dev) from the average trait score for all progeny. The percentage of a ram's progeny assessed for each score is also reported. For the majority of breeder's objectives a negative deviation would be considered favorable and the larger the deviation the better.

Four pigmentation traits are reported as described on page 16. These are Fibre pigmentation, Non-fibre pigmentation, Recessive "black" and Random "spot". Fibre pigmentation and Non-fibre pigmentation are scored **1** to **5** however Recessive black and Random spot are scored **1** (no pigmentation of this type) or **5** (when the trait is expressed). Only the percentage scored 5 are reported for Recessive black and Random spot.

| | Wool Quality | | | | | | | | | | | | Pigmentation | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ram | Staple Weathering | | | | | | Staple Structure | | | | | | Fibre pigmentation | | | | | | Non-fibre pigmentation | | | | | | Black | Spot |
| code | Dev | 1 | 2 | 3 | 4 | 5 | Dev | 1 | 2 | 3 | 4 | 5 | Dev | 1 | 2 | 3 | 4 | 5 | Dev | 1 | 2 | 3 | 4 | 5 | 5 | 5 |
| 1 | 0.1 | 0 | 13 | 64 | 23 | 0 | 0.2 | 5 | 34 | 59 | 2 | 0 | 0.1 | 96 | 2 | 0 | 0 | 2 | -0.3 | 36 | 38 | 26 | 0 | 0 | 0 | 0 |
| 2 * | 0.2 | 0 | 18 | 50 | 32 | 0 | 0.0 | 0 | 55 | 45 | 0 | 0 | -0.1 | 100 | 0 | 0 | 0 | 0 | -0.3 | 29 | 52 | 19 | 0 | 0 | 0 | 0 |
| 3 * | -0.3 | 0 | 44 | 41 | 15 | 0 | -0.2 | 3 | 73 | 24 | 0 | 0 | 0.0 | 98 | 2 | 0 | 0 | 0 | -0.1 | 23 | 44 | 26 | 7 | 0 | 0 | 0 |
| 4 | -0.3 | 2 | 36 | 51 | 11 | 0 | -0.3 | 4 | 80 | 16 | 0 | 0 | 0.2 | 86 | 9 | 3 | 2 | 0 | 0.4 | 3 | 43 | 45 | 9 | 0 | 0 | 0 |
| 5 * | -0.1 | 0 | 28 | 54 | 18 | 0 | -0.1 | 0 | 66 | 32 | 2 | 0 | -0.1 | 100 | 0 | 0 | 0 | 0 | 0.1 | 13 | 46 | 39 | 0 | 2 | 0 | 0 |
| 6 | 0.2 | 0 | 18 | 51 | 31 | 0 | 0.0 | 2 | 56 | 42 | 0 | 0 | -0.1 | 100 | 0 | 0 | 0 | 0 | -0.5 | 46 | 37 | 17 | 0 | 0 | 0 | 0 |
| 7 | 0.6 | 0 | 4 | 34 | 62 | 0 | 0.7 | 0 | 9 | 70 | 21 | 0 | 0.0 | 98 | 2 | 0 | 0 | 0 | 0.1 | 18 | 40 | 29 | 13 | 0 | 0 | 0 |
| 8 | -0.1 | 0 | 34 | 48 | 18 | 0 | 0.0 | 0 | 55 | 45 | 0 | 0 | -0.1 | 100 | 0 | 0 | 0 | 0 | 0.4 | 6 | 27 | 67 | 0 | 0 | 0 | 0 |
| 9 | -0.4 | 0 | 47 | 44 | 9 | 0 | -0.2 | 0 | 80 | 20 | 0 | 0 | -0.1 | 100 | 0 | 0 | 0 | 0 | -0.3 | 35 | 37 | 26 | 2 | 0 | 0 | 0 |
| 10 UR | 0.4 | 0 | 9 | 47 | 44 | 0 | 0.0 | 0 | 60 | 38 | 2 | 0 | -0.1 | 100 | 0 | 0 | 0 | 0 | 0.0 | 22 | 35 | 37 | 6 | 0 | 0 | 0 |
| 11 | -0.5 | 3 | 53 | 41 | 3 | 0 | -0.2 | 6 | 68 | 26 | 0 | 0 | -0.1 | 100 | 0 | 0 | 0 | 0 | -0.4 | 33 | 52 | 15 | 0 | 0 | 0 | 0 |
| 12 | -0.1 | 0 | 32 | 52 | 16 | 0 | -0.1 | 2 | 66 | 32 | 0 | 0 | 0.0 | 98 | 0 | 0 | 2 | 0 | 0.1 | 14 | 46 | 32 | 6 | 2 | 0 | 0 |
| 13 | -0.3 | 0 | 41 | 50 | 9 | 0 | -0.3 | 7 | 75 | 18 | 0 | 0 | 0.0 | 96 | 2 | 0 | 2 | 0 | -0.3 | 36 | 34 | 28 | 2 | 0 | 0 | 0 |
| 14 | 0.3 | 0 | 14 | 47 | 39 | 0 | 0.3 | 0 | 29 | 69 | 2 | 0 | 0.1 | 88 | 9 | 1 | 2 | 0 | 0.4 | 4 | 41 | 50 | 4 | 1 | 0 | 0 |
| 15 * | -0.1 | 0 | 22 | 65 | 13 | 0 | -0.1 | 3 | 62 | 35 | 0 | 0 | 0.0 | 95 | 5 | 0 | 0 | 0 | 0.5 | 5 | 29 | 55 | 11 | 0 | 0 | 0 |
| 16 * | 0.2 | 0 | 21 | 45 | 34 | 0 | 0.1 | 0 | 55 | 43 | 2 | 0 | 0.1 | 95 | 0 | 0 | 4 | 1 | 0.2 | 14 | 38 | 43 | 4 | 1 | 0 | 2 |
| 17 UR | 0.2 | 0 | 22 | 38 | 40 | 0 | 0.2 | 0 | 42 | 56 | 2 | 0 | 0.0 | 98 | 2 | 0 | 0 | 0 | -0.1 | 24 | 38 | 38 | 0 | 0 | 0 | 0 |
| Avg. | 3.0 | 0 | 27 | 48 | 25 | 0 | 2.4 | 2 | 57 | 39 | 2 | 0 | 1.1 | 97 | 2 | 0 | 1 | 0 | 2.2 | 21 | 40 | 35 | 4 | 0 | 0 | 0 |

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

UR Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

■ Information on how to use the results in the table above can be found on page 16.

## Table 3c. **Visual trait assessments –Conformation**

Traits are reported as a deviation (Dev) from the average trait score for all progeny. The percentage of a ram's progeny assessed for each score is also reported. For the majority of breeder's objectives a negative deviation would be considered favorable and the larger the deviation the better. Face cover and body wrinkle are possible exceptions when for many breeders the optimum score is in the middle of the range therefore trait leaders have not been highlighted.

| Ram | Conformation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jaw | | | | | | Legs and Feet | | | | | | Shoulder and Back | | | | | | Face Cover | | | | | | Body Wrinkle | | | | | |
| Code | *Dev* | *1* | *2* | *3* | *4* | *5* | *Dev* | *1* | *2* | *3* | *4* | *5* | *Dev* | *1* | *2* | *3* | *4* | *5* | *Dev* | *1* | *2* | *3* | *4* | *5* | *Dev* | *1* | *2* | *3* | *4* | *5* |
| 1 | 0.0 | 89 | 11 | 0 | 0 | 0 | 0.2 | 0 | 64 | 30 | 6 | 0 | -0.1 | 55 | 0 | 45 | 0 | 0 | 0.2 | 0 | 23 | 59 | 18 | 0 | 0.2 | 9 | 66 | 23 | 0 | 2 |
| 2 * | 0.0 | 93 | 7 | 0 | 0 | 0 | -0.1 | 0 | 86 | 9 | 5 | 0 | 0.4 | 27 | 3 | 70 | 0 | 0 | -0.3 | 0 | 52 | 43 | 5 | 0 | 0.1 | 20 | 55 | 25 | 0 | 0 |
| 3 * | 0.1 | 88 | 12 | 0 | 0 | 0 | -0.2 | 0 | 93 | 7 | 0 | 0 | -0.1 | 54 | 5 | 41 | 0 | 0 | 0.0 | 0 | 22 | 76 | 2 | 0 | 0.0 | 17 | 68 | 12 | 3 | 0 |
| 4 | 0.1 | 84 | 16 | 0 | 0 | 0 | 0.0 | 2 | 76 | 20 | 2 | 0 | -0.2 | 60 | 0 | 40 | 0 | 0 | 0.0 | 0 | 18 | 80 | 2 | 0 | 0.2 | 7 | 65 | 25 | 3 | 0 |
| 5 * | 0.0 | 96 | 4 | 0 | 0 | 0 | 0.0 | 2 | 72 | 26 | 0 | 0 | -0.4 | 68 | 4 | 28 | 0 | 0 | -0.1 | 0 | 32 | 62 | 6 | 0 | 0.0 | 18 | 68 | 14 | 0 | 0 |
| 6 | 0.0 | 91 | 9 | 0 | 0 | 0 | 0.0 | 0 | 73 | 27 | 0 | 0 | 0.1 | 47 | 2 | 51 | 0 | 0 | 0.1 | 0 | 16 | 76 | 8 | 0 | 0.0 | 20 | 64 | 16 | 0 | 0 |
| 7 | 0.0 | 91 | 9 | 0 | 0 | 0 | -0.1 | 0 | 83 | 17 | 0 | 0 | 0.1 | 47 | 2 | 51 | 0 | 0 | -0.4 | 2 | 62 | 32 | 4 | 0 | -0.7 | 75 | 25 | 0 | 0 | 0 |
| 8 | -0.1 | 100 | 0 | 0 | 0 | 0 | -0.2 | 0 | 97 | 3 | 0 | 0 | 0.0 | 48 | 0 | 52 | 0 | 0 | 0.0 | 0 | 21 | 79 | 0 | 0 | -0.1 | 21 | 76 | 3 | 0 | 0 |
| 9 | 0.0 | 89 | 11 | 0 | 0 | 0 | 0.0 | 0 | 78 | 22 | 0 | 0 | 0.0 | 49 | 2 | 49 | 0 | 0 | 0.1 | 0 | 18 | 73 | 9 | 0 | 0.1 | 16 | 62 | 22 | 0 | 0 |
| 10 [UR] | 0.0 | 98 | 2 | 0 | 0 | 0 | 0.1 | 0 | 69 | 29 | 2 | 0 | 0.7 | 16 | 0 | 84 | 0 | 0 | 0.1 | 0 | 13 | 84 | 3 | 0 | 0.2 | 13 | 56 | 31 | 0 | 0 |
| 11 | 0.0 | 94 | 0 | 6 | 0 | 0 | -0.2 | 3 | 88 | 9 | 0 | 0 | -0.6 | 79 | 0 | 21 | 0 | 0 | 0.2 | 0 | 12 | 82 | 6 | 0 | 0.3 | 3 | 68 | 29 | 0 | 0 |
| 12 | 0.0 | 95 | 5 | 0 | 0 | 0 | -0.1 | 0 | 84 | 16 | 0 | 0 | 0.1 | 45 | 0 | 55 | 0 | 0 | -0.2 | 0 | 45 | 52 | 3 | 0 | 0.0 | 16 | 73 | 11 | 0 | 0 |
| 13 | 0.0 | 93 | 7 | 0 | 0 | 0 | 0.0 | 5 | 70 | 23 | 2 | 0 | -0.5 | 73 | 2 | 25 | 0 | 0 | -0.1 | 0 | 34 | 64 | 2 | 0 | 0.0 | 18 | 70 | 12 | 0 | 0 |
| 14 | 0.0 | 98 | 2 | 0 | 0 | 0 | 0.2 | 2 | 57 | 33 | 8 | 0 | -0.2 | 59 | 0 | 41 | 0 | 0 | 0.0 | 0 | 25 | 69 | 6 | 0 | -0.2 | 33 | 55 | 12 | 0 | 0 |
| 15 * | 0.0 | 95 | 5 | 0 | 0 | 0 | 0.0 | 2 | 73 | 22 | 3 | 0 | 0.4 | 32 | 0 | 65 | 0 | 3 | 0.0 | 0 | 16 | 84 | 0 | 0 | 0.4 | 6 | 62 | 27 | 0 | 5 |
| 16 * | -0.1 | 100 | 0 | 0 | 0 | 0 | 0.3 | 0 | 53 | 43 | 2 | 2 | 0.2 | 38 | 2 | 60 | 0 | 0 | 0.2 | 0 | 11 | 83 | 6 | 0 | -0.2 | 28 | 66 | 6 | 0 | 0 |
| 17 [UR] | 0.0 | 96 | 4 | 0 | 0 | 0 | -0.1 | 0 | 85 | 15 | 0 | 0 | -0.1 | 58 | 0 | 42 | 0 | 0 | 0.1 | 0 | 17 | 75 | 8 | 0 | -0.2 | 31 | 58 | 10 | 1 | 0 |
| Avg. | 1.1 | 93 | 7 | 0 | 0 | 0 | 2.2 | 0 | 77 | 21 | 2 | 0 | 2.0 | 50 | 2 | 48 | 0 | 0 | 2.8 | 0 | 26 | 69 | 5 | 0 | 2.0 | 21 | 62 | 17 | 0 | 0 |

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

[UR] Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

■ Information on how to use the results in the table above can be found on page 16.

## Table 3e. **Visual trait assessments – Breech**

Traits are reported as a deviation (Dev) from the average trait score for all progeny. The percentage of a ram's progeny assessed for each score is also reported. For the majority of breeder's objectives a negative deviation would be considered favorable and the larger the deviation the better.

| Ram | Breech Visual Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Breech Cover | | | | | | | Breech Wrinkle | | | | | | Dag |
| | *Dev* | *1* | *2* | *3* | *4* | *5* | | *Dev* | *1* | *2* | *3* | *4* | *5* | |
| 1 | 0.2 | 0 | 0 | 15 | 79 | 6 | | 0.1 | 0 | 48 | 50 | 2 | 0 | |
| 2 * | 0.0 | 0 | 0 | 31 | 67 | 2 | | 0.1 | 0 | 45 | 49 | 6 | 0 | |
| 3 * | -0.3 | 0 | 2 | 47 | 51 | 0 | | -0.3 | 13 | 53 | 34 | 0 | 0 | |
| 4 | 0.1 | 0 | 4 | 10 | 83 | 3 | | 0.0 | 0 | 50 | 48 | 2 | 0 | |
| 5 * | -0.2 | 0 | 5 | 33 | 60 | 2 | | 0.2 | 0 | 38 | 58 | 4 | 0 | |
| 6 | 0.2 | 0 | 0 | 16 | 72 | 12 | | -0.2 | 2 | 70 | 24 | 4 | 0 | |
| 7 | -0.8 | 0 | 18 | 70 | 12 | 0 | | -0.4 | 11 | 68 | 21 | 0 | 0 | |
| 8 | 0.2 | 0 | 0 | 13 | 84 | 3 | | -0.1 | 0 | 61 | 39 | 0 | 0 | |
| 9 | 0.0 | 0 | 0 | 28 | 70 | 2 | | 0.1 | 0 | 41 | 57 | 2 | 0 | |
| 10 UR | -0.1 | 0 | 2 | 33 | 65 | 0 | | 0.1 | 0 | 41 | 55 | 4 | 0 | |
| 11 | -0.2 | 0 | 9 | 36 | 48 | 7 | | 0.1 | 0 | 45 | 52 | 3 | 0 | |
| 12 | 0.0 | 0 | 3 | 20 | 73 | 4 | | 0.1 | 0 | 39 | 59 | 2 | 0 | |
| 13 | 0.2 | 0 | 0 | 14 | 78 | 8 | | 0.2 | 0 | 29 | 69 | 2 | 0 | |
| 14 | 0.2 | 0 | 0 | 22 | 64 | 14 | | 0.0 | 0 | 50 | 50 | 0 | 0 | |
| 15 * | -0.1 | 0 | 0 | 37 | 59 | 4 | | 0.2 | 0 | 35 | 57 | 8 | 0 | |
| 16 * | 0.4 | 0 | 0 | 8 | 67 | 25 | | -0.2 | 0 | 70 | 30 | 0 | 0 | |
| 17 UR | 0.2 | 0 | 0 | 13 | 78 | 9 | | -0.2 | 2 | 67 | 31 | 0 | 0 | |
| Avg. | 3.7 | 0 | 3 | 26 | 65 | 6 | | 2.5 | 2 | 50 | 46 | 2 | 0 | |

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

UR Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

■ Information on how to use the results in the table above can be found on page 16

## Table 4. **Ram averages for measured traits**

Ram averages are the average performance of all the progeny of a ram. No account is made for factors that can improve the breeding value accuracy.

| Ram code | Ram name | Number of progeny | Ram averages for measured traits (deviations) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | GFW % | CFW % | FD µm | WT kg | | FDCV % | Curv deg/mm | SL mm | SS N/ktex |
| | | | A | A | A | Y | A | A | A | A | A |
| 1 | Avington, 06-047 | 48 | 0.2 | 0.2 | -0.7 | 0.3 | -2.4 | 1.0 | 4.3 | -3.3 | 0.1 |
| 2 * | Bindawarra, 1143 | 49 | 0.2 | 0.2 | 0.1 | -1.0 | -0.1 | -0.5 | -3.5 | 2.5 | 2.7 |
| 3 * | Centre Plus Poll, 107351 | 47 | 0.4 | 0.1 | 0.7 | 4.4 | 4.4 | -0.8 | -4.3 | 3.8 | 8.7 |
| 4 | Connewarran, 227 | 60 | 0.3 | 0.3 | -0.3 | -0.8 | 0.2 | 0.4 | -4.6 | -1.9 | -2.5 |
| 5 * | Cressbrook, 06/580 | 55 | -0.2 | -0.2 | -0.6 | -2.0 | -2.3 | -0.5 | 2.9 | -0.5 | -1.4 |
| 6 | Currawong, White 1267 | 50 | -0.4 | -0.3 | -0.8 | -1.3 | -1.9 | -0.6 | 10.1 | -6.9 | 0.1 |
| 7 | Glendemar, 1453 | 57 | -0.3 | -0.3 | 1.4 | 5.0 | 6.2 | -0.6 | -7.3 | 12.5 | 3.2 |
| 8 | Gringegalgona, 051021 | 31 | 0.1 | 0.0 | -0.3 | 1.7 | 3.5 | -0.2 | 0.7 | 6.3 | -4.7 |
| 9 | Kerrsville Poll, GL5584 | 46 | -0.2 | -0.2 | 0.0 | 0.7 | 1.6 | 1.0 | 6.2 | -9.6 | -4.0 |
| 10 UR | Kooringal, 2521 | 49 | 0.3 | 0.3 | 0.0 | -1.0 | -1.4 | -0.4 | -8.5 | 1.1 | 1.3 |
| 11 | Kurra-Wirra, SR3536 | 34 | -0.1 | -0.1 | -0.4 | -0.6 | -1.8 | 0.6 | 5.4 | -3.2 | -3.5 |
| 12 | Mokanger, Y29 | 51 | -0.5 | -0.4 | -0.6 | -3.0 | -3.2 | -1.7 | 0.7 | -1.5 | 3.1 |
| 13 | Pendarra, 278 | 49 | 0.1 | 0.1 | 0.0 | 2.1 | 3.2 | -0.1 | -0.2 | -4.2 | -11.1 |
| 14 | The Mountain Dam, 02/NW113 | 58 | 0.1 | 0.0 | 0.6 | -1.0 | -1.5 | 1.1 | -0.8 | 2.4 | -2.7 |
| 15 * | Windarra, 04/0236 | 41 | 0.7 | 0.4 | 0.4 | -0.9 | -1.0 | 1.1 | -4.7 | 0.9 | 1.4 |
| 16 * | Yalgoo, 188 | 57 | -0.6 | -0.5 | -0.6 | -2.1 | -2.1 | -0.6 | 6.0 | 0.7 | 4.3 |
| 17 UR | Yiddinga, BLK 80 | 55 | 0.1 | 0.1 | 1.0 | -0.6 | -1.5 | 0.7 | -2.2 | 1.0 | 5.0 |
| | Average performance | 49 | 4.7 | 3.5 | 17.6 | 37.1 | 34.9 | 17.2 | 103 | 81.8 | 32.7 |
| | | | kg | kg | µm | kg | | % | deg/mm | mm | N/ktex |

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

UR Unregistered Flock. Rams bred in an unregistered flock are identified in the table by a UR following the ram's code.

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

## Understanding the results

**Index Options** – indexes reported on page 11.

Breeding Objective index options provide the relative value of rams 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 ram 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 ram is used in a breeder's flock.**

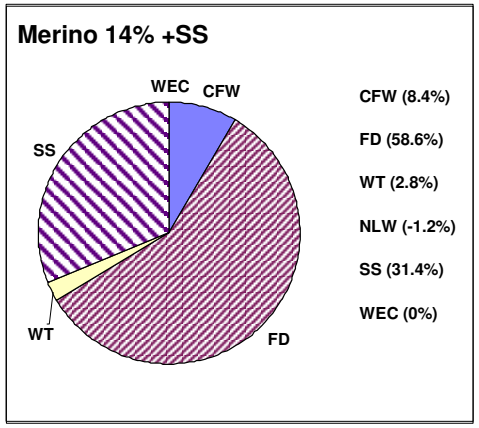
All AMSEA site evaluation reports present 3 standard indexes to provide combined **measured** trait performance These 3 AMSEA indexes are Fine 10% +SS; Merino 14% +SS; and Dual Purpose 7%. These indexes are the same as MERINOSELECT indexes of that name however as there is no direct reproduction records captured by sire evaluation AMSEA do not include a Reproduction (NLW) FBV in their index calculations. As a result the 14% contribution by NLW in the Dual Purpose 7% index is not effectively applied by the index calculation.

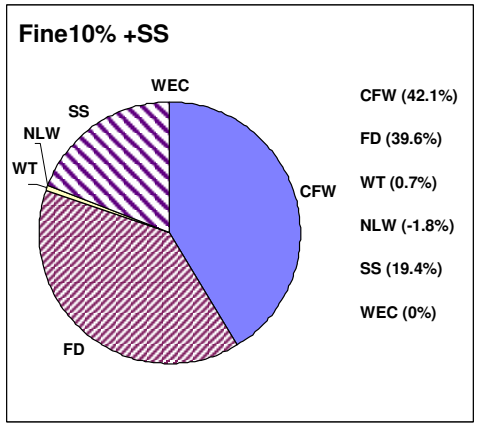
This report has added an additional index – the AMSEA Merino 20% + SS.

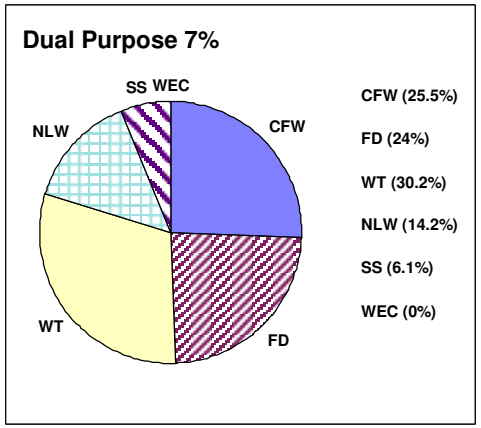
**Index *production system* and breeding objectives**

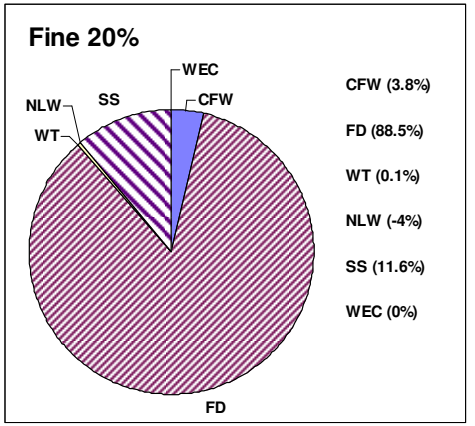
| | |
|---|---|
| AMSEA **Fine 10% +SS** (F10% +SS) | *Fine wool Merino self-replacing production system* with moderate emphasis on fleece weight and fibre diameter (10% Micron Premium) plus moderate emphasis on staple strength and maintain performance on other traits. |
| AMSEA **Merino 14% +SS** (M14% +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. |
| AMSEA **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 maintain performance on other traits. |
| AMSEA **Fine Merino 20% + SS** (M20%+SS) | *Fine wool Merino self-replacing production* system with high emphasis on fibre diameter (20% micron premium) and staple strength. There is adequate emphasis on other traits to maintain performance except a moderate reduction in reproduction (number of lambs weaned – NLW). |

**Traits contribution to economic gain:** The percentage contribution of the traits listed to economic gain in a commercial flock that selects rams using the index.



## 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 ram relative to another ram in the evaluation when mated to the same standard of ewes. FBVs improve the accuracy of ram results because they account for the association between traits, adjustment for birth effects and the number of progeny a ram has in the analysis.

*True* Breeding Values would be achieved if the number of progeny evaluated for each ram were 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 rams 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 ram's progeny.

## Link rams

## Link rams

Link rams provide the 'genetic link' between CTSE sites located across Australia to allow all rams entered in these site evaluations to have their performance reported relative to each other in *Merino Superior Sires*. *Merino Superior Sires* reports rams from across all effectively linked CTSE sites and across all evaluations at these sites. Link rams are therefore a vital component of the Central Test Sire Evaluation.

To be used as a link a ram must have at least 25 progeny assessed at 1st Assessment 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 rams which can provide a wider perspective of the elite rams available across many flocks in Australia and New Zealand.

## Combined measured trait and combined visual trait performance

Combined measured trait performance is calculated as (AMSEA Merino 7% index – 100). The AMSEA Merino 7% index places equal and high emphasis on both fleece weight and fibre diameter, moderate emphasis on body weight and adequate emphasis on other measured traits to allow them to be maintained. Due to the general nature of this index it is useful to be used to report the graphical summary of all traits. Breeders with significantly different objectives should take this into account when considering this graphical summary.

Combined visual trait performance is calculated as:
(Classer's Grade Tops% – Culls%)/5, expressed as a deviation from (average Tops% – average Culls%)/5.

**Example**

Ram's performance:
- AMSEA 7% MP Index value = 119.7
- Tops% = 25.5 (average Tops% = 25.1)
- Culls% = 17.6 (average Culls% = 16.4)

- Combined Measured = 119.7.0 – 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


# Elders Victoria Sire Evaluation Group