

# Elders Victoria Sire Evaluation Group

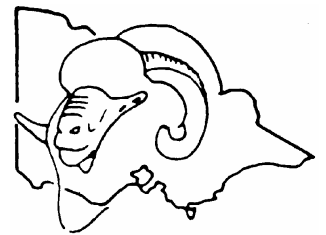
## 2004 Drop 1st Evaluation of Progeny at 11 Months

### 11 Months Wool Growth



**Conducted by:**

The Elders Victoria Sire Evaluation Group  
under the auspices of the  
Victorian Stud Merino Sheepbreeders' Association  
& Balmoral P & A Society



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*Data analysis: Susan Jarvis*

September 2005

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The information in this booklet should not be read in isolation – 2004 drop progeny at the time of their assessment were 11 months of age and were shorn with 11 months wool growth. This is the first assessment of the 2004 progeny in the Central Test Evaluation trials and results from this assessment will be reported in *Merino Superior Sires*.

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## CONDUCT OF SIRE EVALUATION SCHEMES

This evaluation is an accredited sire evaluation program run under the guidelines of the Australian Merino Sire Evaluation Association (AMSEA). The established guidelines have been followed to enable an accurate and fair comparison of the Merino rams entered allowing the results to be published in the Merino Superior Sires report.

### ***Elders Victoria Sire Evaluation Group - Balmoral***

*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 (1998-2005), 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” and “Arundale” 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 8 progeny drops – 1998, 1999, 2000, 2001, 2002, 2003, 2004 & 2005. All trials are run for a minimum of 2 years.

- 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”, Gringegalgon Merino Stud at Balmoral.
- 2004 & 2005 drop – Host property “Arundale” at Balmoral

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.

Planning and direction is developed by the Sire Evaluation Group Management Committee.

### ***The Management Committee:***

Robert Plush	(Chairman)	03 5575 0208	rjplush@bigpond.com
Robert Close		03 5570 4238	kurrawirra@anson.com.au
Tom Silcock		03 5388 2238	silcock@netconnect.com.au
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Sue & Hugh Jarvis		03 5574 3298	suejarvis@bigpond.com
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Colin & Jill Frawley		03 5578 6334	wirra@anson.com.au
Tania Rentsch		03 5576 5051	simtan111@bigpond.com
(Manager, c/- D Rendell & Assoc)			

### ***Host Property for 2004 drop progeny***

The “Arundale” property, owned by Donald Cant and managed by Barry Matthews, is located 16 kms west of Balmoral on a predominately sandy, grey loam soil type in undulating red gum country. The average rainfall is 650 mm. Progeny are managed under strict commercial conditions.

# UNDERSTANDING THE RESULTS

## TABLES

Sire Identity:	Identity of breeder and the sire's number and/or name and code number located on some tables and graphs.
No. of Progeny:	Number of progeny assessed at time of event
Estimated Progeny Values:	Estimated progeny values (EPVs) express the expected performance of progeny of a sire relative to another sire in the evaluation when mated to a random allocation of ewes. EPVs are used to describe the performance of the major measured traits (see information on accuracy over page). They are expressed as deviations (dev) from the average of sires in the evaluation. Fibre Diameter, Yield, Coefficient of Variation of Fibre Diameter, Staple Strength and Staple Length EPVs are presented as deviations from the average, expressed in the same units as they were measured. Greasy and Clean Fleece Weights and Body Weights are percentages – 0% equals average and, for example, 10.0 is 10% above average performance of the group.
Measured traits:	GFW% Greasy Fleece Weight (percentage) CFW% Clean Fleece Weight (percentage) FD $\mu$ m Average Fibre diameter (micron) BWT% Body Weight (percentage) CV% Co-efficient of variation of fibre diameter Yld% Washing yield of the midside sample SL Staple Length (mm) Str Staple Strength (N/ktex)
FEC	Faecal Egg Count. FEC values relate to the susceptibility or resistance to infection by worms: - Highly susceptible: 0.75 & higher      Highly resistant: -0.75 & lower - Susceptible: 0.50 to 0.75                  Resistant: -0.50 to -0.75 - Mod. susceptible: 0.25 to 0.5              Mod. Resistant: -0.25 to -0.5 Note: Average susceptibility for FEC: 0.25 to -0.25
Sire Least Square Means:	Sire least square means are the average performance of all the progeny assessed, but corrected for the number of progeny, sex and birth type.
Visual Traits:	<b>Most traits are scored 1 to 5, with '1' being best and '5' being worst. Many animals were scored '3', being neither bad nor outstandingly good.</b>
<i>Conformation</i>	<b>Face</b> – Scored 1 to 5. Scores of 2,3, or 4 are most acceptable; scores of 1 (bare) or 5 (muffled) are less acceptable. <b>Shoulders/back</b> – Reported as percentage of the progeny with a negative expression. <b>Feet/legs</b> – Scored 1 to 5. (1 being best) <b>Neck/body development</b> – Scored 1 to 5. Scores of 2, 3 or 4 are most acceptable, scores of 1 or 5 are less acceptable (too heavy or too plain). <b>Mouth/Jaw</b> – Reported as percentage of progeny with a negative expression.
<i>Wool Quality</i>	<b>Wool Colour</b> – Scored 1 to 5. (1 being best) <b>Wool Character</b> – Scored 1 to 5 (1 being best) <b>Staple Weathering / Dust penetration</b> - Scored 1 to 5, where '1' is best. <b>Fleece Rot</b> – Scored 0 to 5, '0' is no fleece rot, '1' slight fleece rot, '5' is extreme. <b>Scored Visual Wool Counts</b> – Assessed as 74's, 70's, 66's, 64's, 62's etc. A lower number means bolder crimp.

## Pigmentation

**A Black Lamb** is the result of a black recessive gene being present in both the sire and the dam (both sire and dam being Bb, or heterozygous). There is a 25% chance that the progeny of the Bb x Bb mating will be a 'black lamb' (bb). That any 'black lambs' resulted from a sire confirms that the sire carries the black recessive gene. When a sire does not produce any 'black lambs' is no guarantee that it does not carry the black recessive gene, as it requires the ewes he is mated to be carriers for this 25% chance of expression to occur.

**Skin Pigmentation:** significant degree of pigmented skin on non wool growing areas. (typically smutty nose/brown rimmed eyes), reported as percentage of progeny with skin pigmentation

**Wool Pigmentation:** pigmented wool in random spots or isolated pigment or pigmented birthcoat, halo-hair, or pigmented leg hair or black lamb, noted at tagging, visual classing or shearing and shown as a percentage of progeny with wool pigmentation.

**Index Options:** Breeding Objective index options provide the relative value of sires based on a combination of the measured traits. It should be noted that these are only some of the many indexes that can be used to describe an individual breeder's objective for measured traits. If a breeder uses a sire, the relative performance of the flock must be considered to establish the change that can be expected.

The RAMPOWER standard indexes – 3%, 6% and 12% Micron Premium (MP) – have been endorsed by Central Test Sire Evaluation as the base indexes for sites to provide combined measured trait results.

**3% MP Index:** Maintain fibre diameter (FD) while maximising the increase in Clean Fleece Weight (CFW), maintaining body weight (BWT) and CV of FD.

**6% MP Index:** A moderate level of downward pressure on FD, while maintaining a high level of increase in CFW, maintaining BWT and improving CV of FD.

**12% MP Index:** A high level of downward pressure on FD, while obtaining a small increase in CFW, maintaining BWT and improving CV of FD.

**Classer's Grade:** In the 2000 drop Assessment the Committee changed to one Classer to grade all assessed progeny as Tops, Flocks or Culls, based on visual assessment of all traits. The percentage of Tops, Flocks and Culls is presented. This change is in line with changes to Sire Evaluation requirements.

**Fleece Value:** The combination of fibre diameter, style grade, staple length, staple strength, yield, and vegetable matter is used to value fleeces. Estimates of clean price (c/kg) were obtained using AWI's Woolcheque website (<http://www.woolcheque.com.au>), using style grade MF4 (best topmaker) and vegetable matter of 1.0% for all sire groups, as well as averages for sire progeny groups for fibre diameter, staple length, staple strength, yield calculated as Overall Mean + Estimated Progeny Value. The price in cents/kg clean was then multiplied by the clean fleece weight (mean calculated using EPV<sup>1</sup>) for each sire, to arrive at the fleece value (\$/fleece). No qualifiers for colour or other wool faults were used.

Table 5 shows the average fleece value for each progeny group. Discounts for staple length and strength are included. The timescales used to estimate prices were the 01-02, 02-03 and 03-04 seasons, for the Southern region. The estimated prices and discounts for these seasons were averaged.

<sup>1</sup> Calculated clean fleece weight =  $1.6747 \times (1 + (EPV_{CFW}/100))$

**Progeny Group Classing:** Assessment of the evenness of sire progeny groups is carried out as a separate assessment to individual classing and is conducted in the 2<sup>nd</sup> year of assessment.

## SUMMARY GRAPHS

Performance distribution graphs provide a summary of performance of sires for two traits such as Fleece Weight and Fibre Diameter. Use the labels on the graph to obtain a general idea of the performance of sires in that area of the graph, e.g. High Fleece Weight / Low Fibre Diameter (see Figure 2).

## ACCURACY OF ESTIMATED PROGENY VALUES

Estimated Progeny Values (EPVs) express the expected performance of progeny of a sire relative to performance of progeny of another sire in the evaluation when mated to the same standard of ewes.

EPVs are more accurate indicators of a sire's relative genetic merit than simple sire averages as they take into account:

- how much of the superiority is actually due to the sire's genes and can be passed on to its progeny;
- the number of progeny a sire has in the analysis;
- the measurements of other related traits,
- non-genetic effects such as whether animals are born as singles or twins.

The 'true' Progeny Value of a sire would be obtained if the number of progeny evaluated for each sire was infinite. Because the number of progeny for each sire in the evaluation is not infinite, performance shown in this report is described as *Estimated Progeny Values*.

The correlation (similarity) between the *Estimated Progeny Value* and the *True Progeny Value* increases as

- i) the number of progeny is increased, and
- ii) the heritability of the trait is greater.

If the number of progeny were infinite the correlation between the *Estimated* and *True Progeny Value* would be perfect (described as 100%). For a highly heritable trait (0.5) such as fibre diameter, the correlation between *Estimated* and *True Progeny 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. Traits with lower heritabilities require more progeny to reach the same level of accuracy.

## ALLOWANCE FOR TWINS/TRIPLETS

### Visual Assessment:

No allowance was made in the visual assessment for multiple births.

### Objective Analysis:

An allowance was made by CTSE analysis program for twins and triplets when analysing measurement data for the following traits – GFW%, Yield%, CFW%, BWT%, FD and CV of FD.

## LINKING CENTRAL TEST DATA USING LOCAL SITES

Link sires provide the "link" between other local sites and are used in combined Central Test Sire Evaluation reports to report across sites and across years. These "link sires" are a vital component of the Central Test Sire Evaluation. To become a "link sire", the ram must have participated in evaluation of their progeny across more than one site. Each year the publication *Merino Superior Sires* is produced which reports the combined analysis of rams participating across all Australian Local Sites.

The information in this booklet therefore should not be read in isolation. These progeny are now reported in this document for their second and final assessment in 2005.

## CHANGES TO THE CENTRAL TEST GROUP

In 2000 the Central Test Sire Evaluation Committee run under the auspices of the Australian Association of Stud Merino Breeders voted to become an independent group and is now known as the Australian Merino Sire Evaluation Association (AMSEA). Updated CTSE accreditation requirements were adopted in April 2000 and continue to be modified by AMSEA as a gradual improvement program for the most accurate data collection and analysis.

The Victorian Stud Merino Sheepbreeders' Association continues to support Victorian Sire Evaluation Trials and the Elders Victoria Sire Evaluation Trial is conducted under the auspices of both the Victorian Stud Merino Sheepbreeders' Association and the Balmoral Pastoral and Agricultural Society.

# PARTICIPANTS IN THE 2004 TRIAL

## SIRE & OWNER DETAILS

<b>Stud Sire Identity</b>	<b>Contact Name, Address, Phone &amp; Fax No. &amp; Email</b>
<b>Broxborne Park A172 *</b> 504031199595A172	Sam Steers PO Box 40 Avenel VIC 3664 Ph. 03 57962259, Fax 03 57962338 Email: <a href="mailto:samsteers@hotmail.com">samsteers@hotmail.com</a>
<b>Cressbrook 99-677</b> 5023021999099677	Lach & Olivia Fulloon 437 Enmore Rd Armidale, NSW 2350 Ph. 02 67751217, Fax 02 67751341 Email: <a href="mailto:cressbrk@bigpond.com">cressbrk@bigpond.com</a>
<b>Gringegalgon A3M0070/99</b> 5030971999A3M070	Stephen Silcock, 279 Melville Forest Vasey Rd, Vasey VIC 3407 Ph. 03 55743202, Fax 03 55743239 Email: <a href="mailto:sjsilcock@bigpond.com">sjsilcock@bigpond.com</a>
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<b>Havilah North 01.0413</b> 5039342001010413	Andrew & Kate White Stoneycreek Rd Mudgee NSW 2850 Ph. 02 63735265, Fax 63735400, Email: <a href="mailto:merinos@havilahnorth.com.au">merinos@havilahnorth.com.au</a>
Identity withheld at owner's request	
Identity withheld at owner's request	
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<b>Kurra-Wirra SR 1263</b> 5041732001001263	Robert Close, Kurra-Wirra, RMB 9333, Coleraine VIC 3315 Ph. 03 55704238, Fax 03 55704234 Email: <a href="mailto:kurrawirra@anson.com.au">kurrawirra@anson.com.au</a>
<b>Melrose RB3262.02</b> 5017042002RB3262	Warren Russell RMB 5434 Horsham VIC 3401 Ph. 03 53881204, Fax 03 53881204 Email: <a href="mailto:melrose@wimmera.com.au">melrose@wimmera.com.au</a>
<b>Merinotech 021530</b> 5046482002021530	Hugh & Susan Jarvis, 8338 Natimuk - Hamilton Rd, Gatum VIC 3407 Ph. 03 55743298, Fax 03 55743299, Email: <a href="mailto:suejarvis@bigpond.com">suejarvis@bigpond.com</a>
<b>One Oak B114</b> 503855200100B114	Graham Wells PO Box 84 Jerilderie NSW 2716 Ph. 03 58861269, Fax 03 58861792
<b>Pleasant Park Red tag 212</b> 5017082002000212	Phillip Walker Pleasant Park, Goroke VIC 3412 Ph. 03 53861202 Email: <a href="mailto:pleasantpark@wimmera.com.au">pleasantpark@wimmera.com.au</a>
<b>The Mountain Dam 96/NI011 *</b> 5045721996NI0011	Tom Silcock, T & A Silcock, RMB 8401, Horsham VIC 3401 Ph. 03 53882238, Fax 03 53882235 Email: <a href="mailto:silcock@netconnect.com.au">silcock@netconnect.com.au</a>
<b>The Mountain Dam 99/NL112</b> 5045721999NL0112	Tom Silcock, T & A Silcock, RMB 8401, Horsham VIC 3401 Ph. 03 53882238, Fax 035388 2235 Email: <a href="mailto:silcock@netconnect.com.au">silcock@netconnect.com.au</a>
<b>Toland White 597</b> 504485200101W597	Philip Toland, PC & G Toland, Feltrim Road, RMB 2005, Violet Town VIC 3669 Ph. 03 57981605, Fax 03 57981404, Email: <a href="mailto:toland@origin.net.au">toland@origin.net.au</a>
<b>Wooltech 0126</b> 5046402000000126	Gregory Hargreaves 20 Wilson St Wedderburn VIC 3518 Ph. 03 54943368 Email: <a href="mailto:hargreavesgt@bigpond.com">hargreavesgt@bigpond.com</a>

\* **Link Sires** — these sires provide the “link” between other accredited Sire Evaluation Sites and Years and have participated in evaluation of their progeny across more than one site.

# MANAGEMENT REPORT - 2004 drop Progeny - "Arundale"

## **Ewe Base:**

Ewes for the 2004 trial were selected from "Arundale" mixed age, fine wool Merino breeding ewes. The average adult flock micron at "Arundale" is 19.5u.

## **2004 Progeny Location:**

The "Arundale" property, owned by Donald Cant and managed by Barry Matthews, is located 16 kms west of Balmoral on a predominately sandy, grey loam soil type in undulating red gum country. An extensive pasture improvement program has been implemented at "Arundale", using rotational and cell grazing strategies along with pasture oversowing and the trialing of Lucerne in certain areas. The average rainfall is 650 mm.

## **Stock Management/Seasonal Conditions**

After a late break, the winter and early spring of 2004 saw a return to a normal season with above average rainfall through June, July and August. Unusually warm weather in early October and only 10 mm for the month threatened to shorten the Spring, but rallying rains early November extended the season for another 2-3 weeks. The rainfall for 2004 was below average at only 540 mm.

The 2005 year commenced with a false break late January, which did supply a green pick for 2 weeks before being burnt off. The rest of 2005 has probably been one of the toughest on record at "Arundale" with all sheep being supplementary fed through until late August. The only positive side has been the milder temperatures through winter, which has enabled stock to utilise the supplementary feed.

**Barry Matthews**

## **The Evaluation & Management Program 2004 drop progeny:**

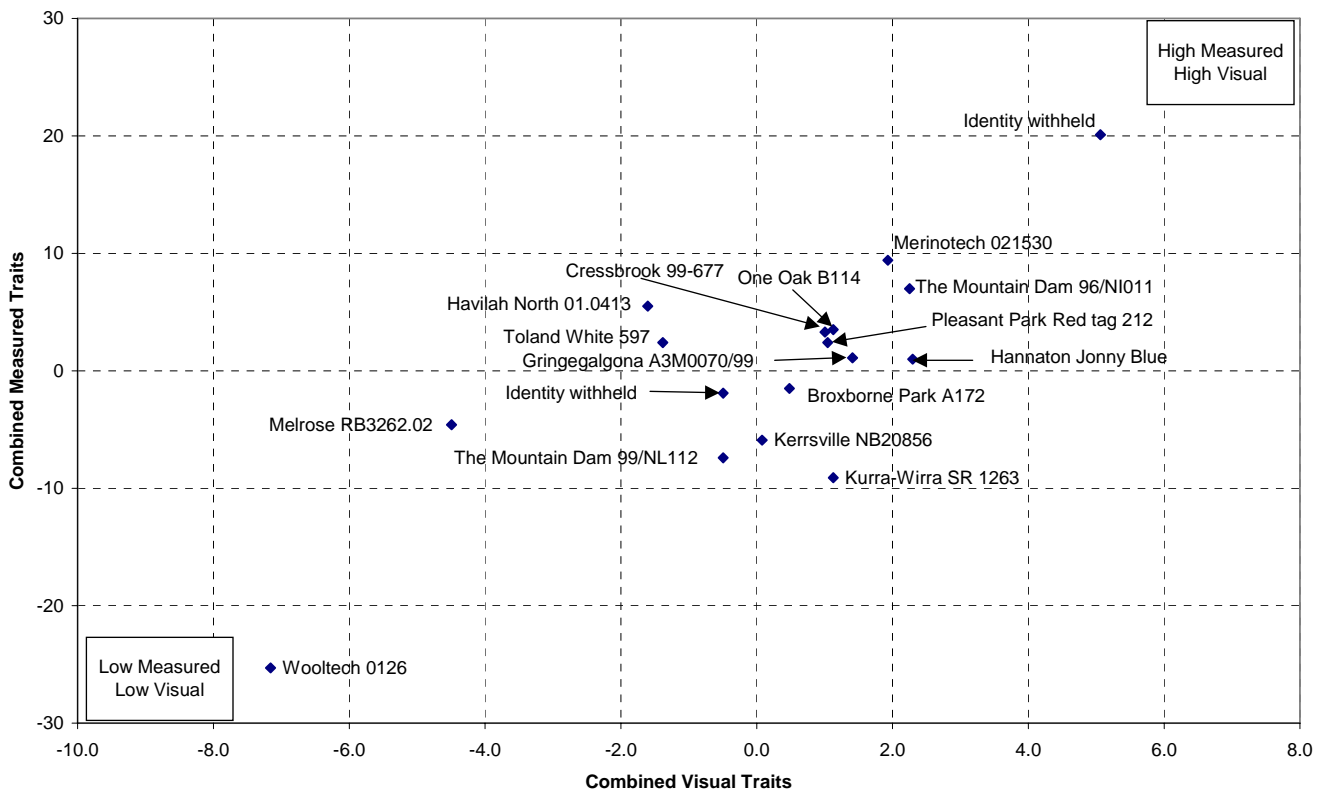
21 <sup>st</sup> February 2004	Commenced AI program-Ewes sponged & teasers injected
7 <sup>th</sup> /8 <sup>th</sup> March 2004	Pull sponges & injected ewes with PMSG, introduced teasers
9 <sup>th</sup> /10 <sup>th</sup> March 2004	Laparoscopic insemination of 1003 ewes, conducted by Brecon Breeders
18 <sup>th</sup> May 2004	Ultrasound / scan ewes by Mark Jenkinson, ewes drafted into mobs of singles & twins.
14 <sup>th</sup> July 2004	Ewes drenched, vaccinated & crutched.
27 <sup>th</sup> July 2004	Ewes drafted into 34 groups for lambing
6 <sup>th</sup> August 2004	Ewes commenced lambing
19 <sup>th</sup> August 2004	Lambs tagged, scored & returned to full mob
23 <sup>rd</sup> September 2004	Marked & mulesed lambs, vaccinated & Cliked
22 <sup>nd</sup> November 2004	Weaned lambs, drenched & vaccinated
20 <sup>th</sup> December 2004	Lambs body weighed, electronic ear tags inserted
9 <sup>th</sup> February 2005	Lambs crutched & drenched
19 <sup>th</sup> March 2005	Progeny on display at Balmoral Show
22 <sup>nd</sup> March 2005	Progeny on display at Open Day
17 <sup>th</sup> May 2005	Lambs drenched
24 <sup>th</sup> June 2005	1 <sup>st</sup> visual classing of progeny and midside samples taken
6 <sup>th</sup> July 2005	1 <sup>st</sup> shearing (11 months wool)
19 <sup>th</sup> August 2005	Body weighing (yearling weight)
23 <sup>rd</sup> September 2005	Individual FEC samples collected

**Classer for 2004 drop Progeny: Mr Andrew Coombe, Elders Ltd**



Figure 1: Summary Graph – Combined Measured Traits and Classer's Grade  
2004 drop – 1st Evaluation

Summary graph using the 6% Breeding Objective Index Option has been used to combine Measured Traits and Classer's Tops & Culls has been used to combine Visual Traits.



Combined Visual is calculated as  $(\text{Tops \%} - \text{Culls \%})/5$ , expressed as a deviation from  $(\text{Average Tops \%} - \text{Average Culls \%})/5$ .  
Combined Measured is calculated as  $(6\% \text{ MP Index} - 100)$

Example: The Mountain Dam 96/NI011

Tops% = 29.41

Culls% = 15.69

6% MP Index = 107.0

Average Tops% = 19.30

Average Culls% = 16.84

Combined Visual =  $((29.41 - 15.69)/5) - ((19.30 - 16.84)/5) = 13.73/5 - 2.47/5 = 2.75 - 0.49 = 2.25$

Combined Measured =  $107.0 - 100 = 7.0$

The RAMPOWER standard indexes:

**3% Index MP:** Maintain FD while maximising the increase in CFW, maintaining BWT and CV of FD.

**6% Index MP:** A moderate level of downward pressure on FD, while maintaining a high level of increase in CFW, maintaining BWT and improving CV of FD.

**12% Index MP:** A high level of downward pressure on FD, while obtaining a small increase in CFW, maintaining BWT and improving CV of FD.

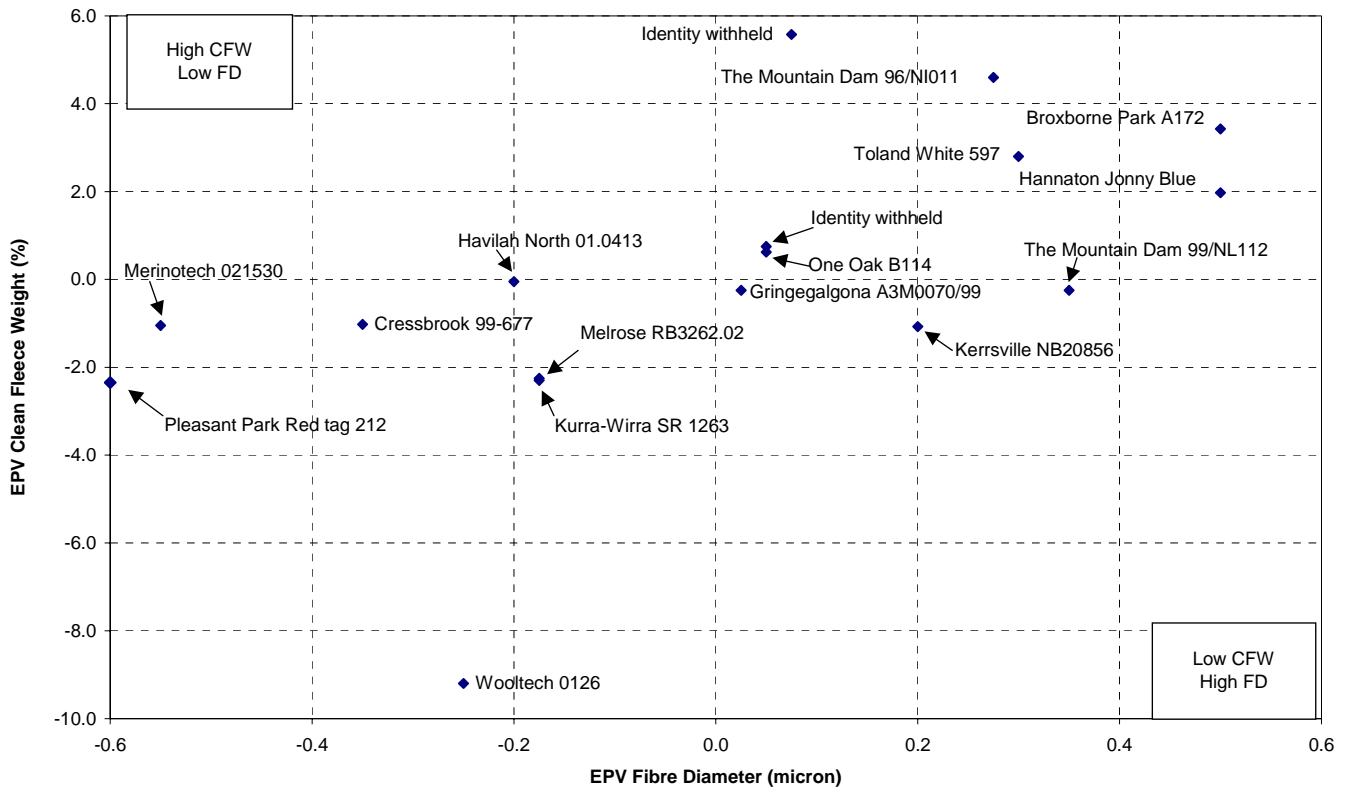
**Table A – RAMPOWER Standard Index Options and Classer’s Grade  
2004 drop - 1<sup>st</sup> Evaluation**

Sire Identity	No of progeny	RAMPOWER Standard Index Options			Classer’s Grade %		
		3% MP	6% MP	12% MP	Tops %	Flocks %	Culls %
Broxborne Park A172 *	41	108	99	87	24	56	20
Cressbrook 99-677	40	101	103	104	28	53	20
Gringegalgona A3M0070/99	42	101	101	100	21	67	12
Hannaton Jonny Blue	43	106	101	100	19	77	5
Havilah North 01.0413	54	103	106	111	15	65	20
Identity withheld at owner’s request	36	122	120	122	33	61	6
Identity withheld at owner’s request	41	101	98	95	15	71	15
Kerrsville NB20856	35	96	94	94	20	63	17
Kurra-Wirra SR 1263	37	88	91	93	24	59	16
Melrose RB3262.02	40	94	95	96	10	60	30
Merinotech 021530	33	102	109	113	24	64	12
One Oak B114	37	104	104	101	22	65	14
Pleasant Park Red tag 212	26	95	102	108	23	62	15
The Mountain Dam 96/NI011 *	51	112	107	98	29	55	16
The Mountain Dam 99/NL112	43	96	93	89	19	63	19
Toland White 597	45	106	102	98	7	82	11
Wooltech 0126	45	65	75	93	2	62	36
<b>Average</b>	41	100	100	100	19	64	17

\* **Link Sires** — these sires provide the “link” between other accredited Sire Evaluation Sites and Years and have participated in evaluation of their progeny across more than one site.

Classer’s Assessment is expressed as a percentage of a sire’s progeny.

Figure 2 - Summary Graph Fleece Weight/Fibre Diameter  
2004 drop - 1<sup>st</sup> Evaluation



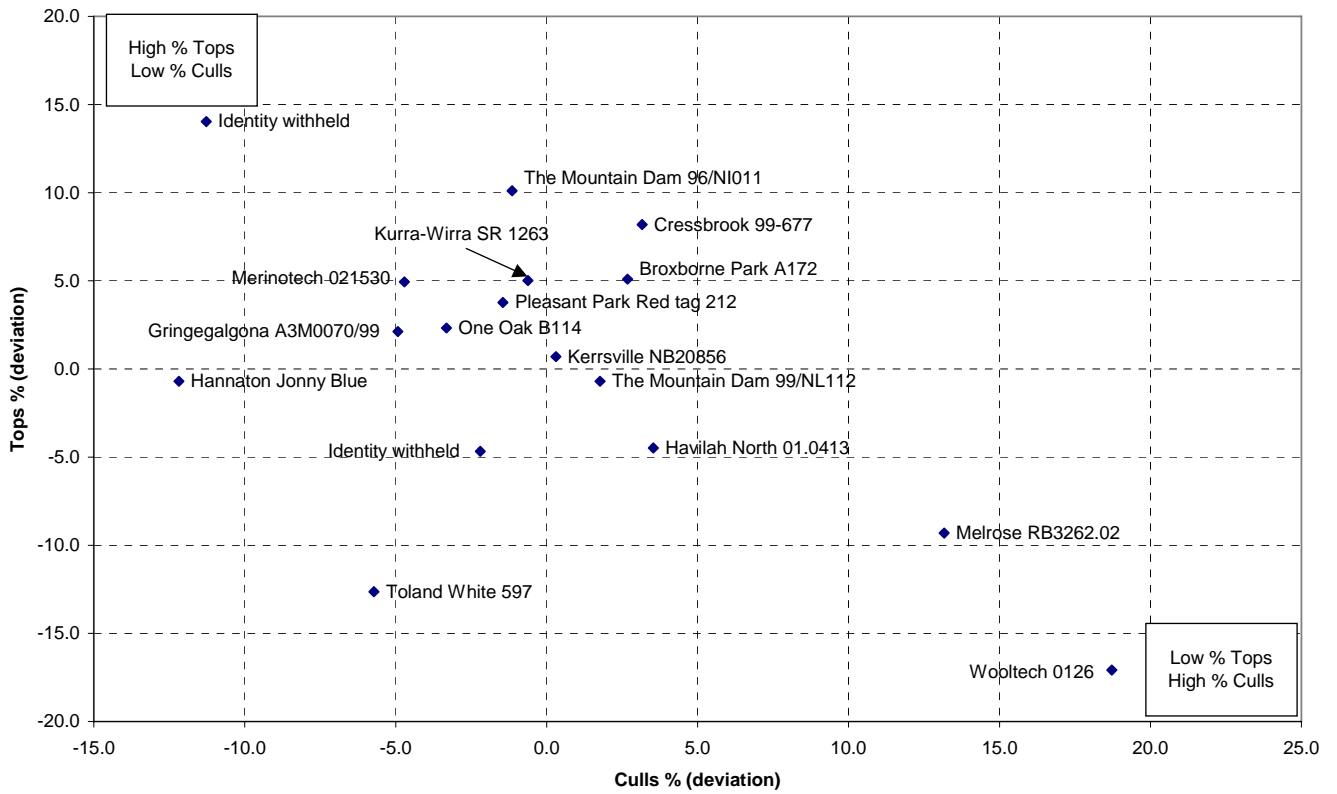
**Table 1. Major Measured Traits – Estimated Progeny Values and Classer’s Grade %**

Sire Identity	No of progeny	Estimated Progeny Values				Classer’s Grade %		
		GFW %	CFW %	FD $\mu$ m	BWT %	Tops %	Flocks %	Culls %
Broxborne Park A172	41	3.2	3.4	0.5	-3.9	24	56	20
Cressbrook 99-677	40	-1.6	-1.0	-0.4	1.9	28	53	20
Gringegalgona A3M0070/99	42	-0.7	-0.3	0.0	2.0	21	67	12
Hannaton Jonny Blue	43	-0.1	2.0	0.5	4.2	19	77	5
Havilah North 01.0413	54	-1.6	-0.1	-0.2	0.2	15	65	20
Identity withheld at owner’s request	36	1.7	5.6	0.1	0.6	33	61	6
Identity withheld at owner’s request	41	2.5	0.8	0.1	0.4	15	71	15
Kerrsville NB20856	35	-1.1	-1.1	0.2	-2.1	20	63	17
Kurra-Wirra SR 1263	37	-0.4	-2.3	-0.2	1.3	24	59	16
Melrose RB3262.02	40	-1.6	-2.3	-0.2	1.8	10	60	30
Merinotech 021530	33	-0.2	-1.1	-0.6	4.2	24	64	12
One Oak B114	37	1.4	0.6	0.1	-1.3	22	65	14
Pleasant Park Red tag 212	26	0.0	-2.4	-0.6	-0.5	23	62	15
The Mountain Dam 96/NI011	51	6.1	4.6	0.3	-1.0	29	55	16
The Mountain Dam 99/NL112	43	-0.4	-0.3	0.4	-3.1	19	63	19
Toland White 597	45	2.0	2.8	0.3	-1.5	7	82	11
Wooltech 0126	45	-9.2	-9.2	-0.3	-3.1	2	62	36
Average	41	2.3 kg	1.7 kg	16.1 $\mu$ m	25.0 kg	19	64	17

**Table 2. Other Measured Traits – Estimated Progeny Values**

Sire Identity	No of progeny	Estimated Progeny Values				
		CV %	Yld %	Staple Strength N/ktex	Staple Length mm	FEC
Broxborne Park A172	41	1.1	0.4	-2.9	2.2	0.18
Cressbrook 99-677	40	0.6	0.7	-1.0	-2.1	-0.26
Gringegalgonna A3M0070/99	42	-0.1	1.1	-0.6	0.2	-0.28
Hannaton Jonny Blue	43	-0.6	1.2	4.1	-0.3	0.03
Havilah North 01.0413	54	-0.6	0.9	3.6	-0.4	0.11
Identity withheld at owner's request	36	-0.8	1.9	8.2	2.0	0.35
Identity withheld at owner's request	41	0.8	-1.8	-1.6	-4.7	0.16
Kerrsville NB20856	35	0.0	0.9	0.5	-4.2	-0.09
Kurra-Wirra SR 1263	37	0.5	-2.6	-2.5	0.3	-0.32
Melrose RB3262.02	40	0.7	-0.1	-2.0	-5.0	0.01
Merinotech 021530	33	-0.6	-0.5	-1.9	4.5	-0.15
One Oak B114	37	-0.2	0.2	-0.9	-0.9	0.11
Pleasant Park Red tag 212	26	0.1	-1.6	-1.5	-3.9	0.26
The Mountain Dam 96/NI011	51	0.3	-2.0	-3.0	6.3	0.12
The Mountain Dam 99/NL112	43	-0.2	0.9	-2.3	5.6	-0.01
Toland White 597	45	-0.2	0.1	-0.2	7.6	-0.05
Wooltech 0126	45	-0.8	0.4	4.0	-7.3	-0.16
Average	41	21.3 %	71.7 %	39.4 N/ktex	72.0 mm	1600 epg

Figure 3 - Summary Graph Classifier's Grades - 2004 drop - 1st Evaluation



**Tables 3 – Measured traits – 2004 drop – 1<sup>st</sup> Evaluation**

**Table 3a. Other Measured Traits – Sire Least Square Means\***

Sire Identity	No of progeny	Spin. F.	Std. Dev.	Curv.	Comfort Factor
Broxborne Park A172	41	16.4	3.7	62.1	99.5
Cressbrook 99-677	40	15.7	3.5	67.4	99.6
Gringegalgon A3M0070/99	42	15.8	3.4	61.7	99.7
Hannaton Jonny Blue	43	16.0	3.4	59.3	99.6
Havilah North 01.0413	54	15.4	3.3	59.6	99.7
Identity withheld at owner's request	36	15.4	3.2	57.8	99.8
Identity withheld at owner's request	41	16.1	3.6	59.3	99.6
Kerrsville NB20856	35	16.0	3.4	63.7	99.6
Kurra-Wirra SR 1263	37	15.7	3.5	67.3	99.6
Melrose RB3262.02	40	15.9	3.6	67.7	99.7
Merinotech 021530	33	15.1	3.1	59.1	99.8
One Oak B114	37	15.8	3.4	57.9	99.7
Pleasant Park Red tag 212	26	15.2	3.3	59.7	99.8
The Mountain Dam 96/NI011	51	15.9	3.5	62.6	99.6
The Mountain Dam 99/NL112	43	15.9	3.4	66.3	99.6
Toland White 597	45	15.7	3.4	56.8	99.7
Wooltech 0126	45	15.4	3.2	58.4	99.7
<b>Average</b>	<b>41</b>	<b>15.7</b> <b>µm</b>	<b>3.4</b> <b>µm</b>	<b>61.6</b> <b>deg/mm</b>	<b>99.7</b> <b>%</b>

\* Least Square Means – corrected for number of progeny, sex and birth type

**Table 3b. Measured Traits<sup>1</sup> – Sire Least Square Means\***

Sire Identity	No of progeny	GFW	CFW	FD	BWT	CV	Yld	Str	SL
Broxborne Park A172	41	2.4	1.7	16.6	23.8	22.5	72.3	36.5	74.7
Cressbrook 99-677	40	2.3	1.7	15.9	25.7	22.2	72.6	37.9	69.8
Gringegalgonia A3M0070/99	42	2.2	1.6	16.3	25.5	20.8	73.3	39.1	73.5
Hannaton Jonny Blue	43	2.3	1.7	16.5	26.6	20.3	73.2	44.2	72.6
Havilah North 01.0413	54	2.3	1.7	15.8	25.1	20.7	72.7	42.6	70.8
Identity withheld at owner's request	36	2.5	1.8	15.9	25.4	19.9	74.1	49.3	74.0
Identity withheld at owner's request	41	2.4	1.7	16.3	25.3	22.2	69.8	38.3	67.7
Kerrsville NB20856	35	2.2	1.6	16.4	24.1	21.1	72.8	39.7	67.3
Kurra-Wirra SR 1263	37	2.3	1.6	15.9	25.5	22.0	68.7	37.3	72.5
Melrose RB3262.02	40	2.2	1.6	16.2	25.6	22.2	71.8	37.2	67.4
Merinotech 021530	33	2.3	1.7	15.6	26.3	20.1	71.2	37.4	76.7
One Oak B114	37	2.3	1.7	16.2	24.4	20.7	72.1	38.1	71.4
Pleasant Park Red tag 212	26	2.3	1.6	15.7	24.3	20.8	69.8	38.0	67.7
The Mountain Dam 96/NI011	51	2.6	1.8	16.2	24.9	21.4	69.5	36.9	77.7
The Mountain Dam 99/NL112	43	2.2	1.6	16.4	23.7	20.8	72.8	36.9	78.1
Toland White 597	45	2.4	1.7	16.2	24.5	20.8	71.9	39.8	80.5
Wooltech 0126	45	1.9	1.4	15.9	23.4	20.1	72.3	43.4	64.5
Average	41	2.3 kg	1.7 kg	16.1 µm	25.0 kg	21.3 %	71.7 %	39.4 N/ktex	72.0 mm

<sup>1</sup> Measured traits presented as EPVs in Tables 1 and 2

\* Least Square Means – corrected for number of progeny, sex and birth type



## Tables 4. Classer's Assessment – 2004 drop – 1st Evaluation

A sire's average score and the percentage of a sire's progeny for each score are reported.

**Table 4a. Scored Wool Quality Traits**

	Colour					Character					Staple Weathering					Fleece Rot									
	best		worst			best		worst			best		worst			best		worst							
Sire Identity	Avg	1	2	3	4	5	Avg	1	2	3	4	5	Avg	1	2	3	4	5	Avg	0	1	2	3	4	5
Broxborne Park A172	1.8	34	51	15			2.1	20	51	29			2.1	27	41	29	2		0.1	95	3	3			
Cressbrook 99-677	1.4	70	25	5			1.8	40	45	15			2.1	28	33	40			0.1	97		3			
Gringegalgon A3M0070/99	1.5	52	43	5			1.9	31	50	14	5		2.4	14	36	48	2		0.1	92	5		3		
Hannaton Jonny Blue	1.4	67	28	2	2		1.6	51	40	7	2		2.0	26	44	30			0.1	95	2				2
Havilah North 01.0413	1.4	61	37	2			1.8	35	50	15			2.3	13	44	43			0.1	93	7				
Identity withheld at owner's request	1.1	94	6				1.4	64	36				1.7	44	42	14			0.0	100					
Identity withheld at owner's request	1.3	66	34				1.6	44	49	7			1.7	56	22	22			0.1	95		2	2		
Kerrsville NB20856	1.4	66	29	6			1.6	54	34	9	3		2.1	29	40	29	3		0.0	97	3				
Kurra-Wirra SR 1263	1.2	78	19	3			1.8	32	54	11	3		1.9	41	27	30	3		0.0	100					
Melrose RB3262.02	1.7	38	58	3	3		2.1	5	85	8	3		2.2	25	35	38	3		0.1	93	3	5			
Merinotech 021530	1.3	67	33				1.5	52	45	3			2.0	30	39	30			0.1	94	6				
One Oak B114	1.7	51	30	19			1.8	32	51	16			2.0	32	38	27	3		0.1	92	5	3			
Pleasant Park Red tag 212	1.2	81	19				1.6	42	54	4			1.4	65	27	8			0.1	92	8				
The Mountain Dam 96/NI011	1.3	76	22		2		1.8	33	51	16			2.0	35	31	33			0.0	100					
The Mountain Dam 99/NL112	1.1	86	14				2.0	16	63	21			2.5	12	26	63			0.0	100					
Toland White 597	1.5	56	42	2			1.9	27	60	11	2		2.3	16	36	49			0.1	91	9				
Wooltech 0126	1.7	51	29	20			1.8	40	38	22			2.2	20	47	31	2		0.2	86	9	2	2		
Average	1.4	64	31	5			1.8	36	51	13	1		2.1	29	36	34	1		0.1	95	4	1			

**Table 4b. Scored Visual Wool Counts**

Sire Identity	60	64	66	70	74	80
Broxborne Park A172		17	63	17	2	
Cressbrook 99-677			28	38	30	5
Gringegalgon A3M0070/99		5	40	36	12	7
Hannaton Jonny Blue		12	42	33	14	
Havilah North 01.0413		2	19	48	31	
Identity withheld at owner's request			42	42	14	3
Identity withheld at owner's request		15	61	22		2
Kerrsville NB20856		3	20	54	14	9
Kurra-Wirra SR 1263			19	35	35	11
Melrose RB3262.02		3	28	33	20	18
Merinotech 021530		3	39	36	21	
One Oak B114	3	16	49	27	5	
Pleasant Park Red tag 212		4	27	46	19	4
The Mountain Dam 96/NI011			27	47	20	6
The Mountain Dam 99/NL112			16	47	35	2
Toland White 597		13	53	27	7	
Wooltech 0126		20	40	29	11	
Average		7	36	36	17	4

Note rows appear not to always sum to 100%. This is due to rounding to nearest percentage.

**Table 4c. Scored Conformation Traits**

	Face					Neck / Body Development					Feet / Legs					Jaw	Back / Shoulder			
	* acceptable *					* acceptable *					best	worst								
Sire Identity	Avg	1	2	3	4	5	Avg	1	2	3	4	5	Avg	1	2	3	4	5	Neg <sup>1</sup>	Neg <sup>1</sup>
Broxborne Park A172	3.5		7	54	24	15	2.5	5	41	49	5		1.9	29	51	17	2			
Cressbrook 99-677	2.3	15	48	35	3		2.5	5	43	48	5		1.7	43	50	8		5		
Gringegalgon A3M0070/99	3.5		12	45	29	14	2.3	7	57	36			1.4	57	43			5	12	
Hannaton Jonny Blue	3.0	2	23	44	30		2.6	7	28	60	5		2.	16	65	16	2			
Havilah North 01.0413	2.9	4	44	20	22	9	2.3	9	50	39	2		1.7	37	54	9				
Identity withheld at owner's request	3.1		28	33	39		2.6	3	39	58			1.8	28	69	3		3	6	
Identity withheld at owner's request	2.6	7	44	34	7	7	3.		20	66	15		2.1	10	73	17			5	
Kerrsville NB20856	3.2		26	40	26	9	2.6	9	29	57	6		1.8	31	57	9	3		3	
Kurra-Wirra SR 1263	3.6		8	38	41	14	2.6	11	16	70	3		1.7	32	65	3				
Melrose RB3262.02	3.7	3	23	20	18	38	2.7	10	28	50	13		1.7	50	35	15			3	
Merinotech 021530	2.9		33	39	27		2.4		58	42			1.5	45	55					
One Oak B114	3.1		35	32	22	11	2.7	3	27	65	5		1.8	32	51	16			5	
Pleasant Park Red tag 212	3.3		15	42	38	4	2.9		19	69	12		2.3	15	54	23	8		4	
The Mountain Dam 96/NI011	3.5		2	55	33	10	2.6	4	33	63			2.	24	53	24			4	
The Mountain Dam 99/NL112	3.3		19	49	21	12	2.3	5	63	33			2.1	21	47	33		2		
Toland White 597	3.	2	38	29	22	9	2.4	2	56	42			1.7	42	47	11			4	
Wooltech 0126	2.4	11	56	13	20		2.4	13	36	49	2		2.	9	78	13		2	7	
Average	3.1	3	27	36	24	9	2.5	6	38	52	4		1.8	31	56	13		1	3	

\* For the Face and Neck/Body Development traits, scores of 2,3 and 4 are most acceptable, scores of 1 and 5 are less acceptable

<sup>1</sup>The percentage of progeny with negative expression of the trait is described

**Table 4d. Pigmentation**

	Black Lamb	Wool	Skin
Sire Identity	Neg <sup>1</sup>	Neg <sup>1</sup>	Neg <sup>1</sup>
Broxborne Park A172			40
Cressbrook 99-677		4	38
Gringegalgon A3M0070/99		2	52
Hannaton Jonny Blue			9
Havilah North 01.0413		7	39
Identity withheld at owner's request	2	6	49
Identity withheld at owner's request	6	10	42
Kerrsville NB20856	6	4	38
Kurra-Wirra SR 1263		5	39
Melrose RB3262.02			21
Merinotech 021530		3	29
One Oak B114			52
Pleasant Park Red tag 212			18
The Mountain Dam 96/NI011		5	52
The Mountain Dam 99/NL112		2	60
Toland White 597	4	8	37
Wooltech 0126		6	49
Average	1	4	40

<sup>1</sup>The percentage of progeny with negative expression of the trait is described

**Table 5. Calculated Fleece Value**

	AWEX ID	SIRE GROUP AVERAGE						Premiums (+) / Discounts (-)			Price cents/ kg clean	Fleece value \$/fleece
		CFW kg	FD µm	YLD %	Vm %	SL mm	Str N/ktex	SL	Str	Total		
Broxborne Park A172	MF4	1.7	16.6	72.1	1.0	74	36	-20	48	28	1850	32.04
Cressbrook 99-677	MF4	1.7	15.7	72.4	1.0	70	38	-20	143	123	2272	37.66
Gringegalgona A3M0070/99	MF4	1.7	16.1	72.8	1.0	72	39	-20	190	170	2285	38.17
Hannaton Jonny Blue	MF4	1.7	16.6	72.9	1.0	72	43	-20	352	332	2155	36.80
Havilah North 01.0413	MF4	1.7	15.9	72.6	1.0	72	43	-20	352	332	2497	41.80
Identity withheld at owner's request	MF4	1.8	16.2	73.6	1.0	74	48	-20	451	431	2488	43.99
Identity withheld at owner's request	MF4	1.7	16.1	70.0	1.0	67	38	-32	143	111	2226	37.56
Kerrsville NB20856	MF4	1.7	16.3	72.6	1.0	68	40	-28	246	218	2217	36.73
Kurra-Wirra SR 1263	MF4	1.6	15.9	69.2	1.0	72	37	-20	94	74	2239	36.63
Melrose RB3262.02	MF4	1.6	15.9	71.7	1.0	67	37	-32	94	62	2227	36.46
Merinotech 021530	MF4	1.7	15.5	71.2	1.0	76	37	-20	97	77	2210	36.62
One Oak B114	MF4	1.7	16.1	71.9	1.0	71	38	-20	143	123	2238	37.71
Pleasant Park Red tag 212	MF4	1.6	15.5	70.1	1.0	68	38	-28	146	118	2251	36.81
The Mountain Dam 96/NI011	MF4	1.8	16.4	69.7	1.0	78	36	-20	50	30	1971	34.53
The Mountain Dam 99/NL112	MF4	1.7	16.4	72.6	1.0	78	37	-20	100	80	2021	33.76
Toland White 597	MF4	1.7	16.4	71.8	1.0	80	39	-20	201	181	2122	36.53
Wooltech 0126	MF4	1.5	15.8	72.1	1.0	65	43	-40	358	318	2475	37.63

Prices and premiums / discounts were obtained from AWI's Woolcheque website (<http://www.woolcheque.com.au>), using latest 3 full seasons (average) and the Southern region.