

May/June 2014

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Issue 1

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#### **Important Dates:**-

19<sup>th</sup> June 2014

Trangie Sire Evaluation Field Day

26-27<sup>th</sup> June 2014

Meat Challenge Processing - Dubbo

9<sup>th</sup> July 2014

Sheep CRC Conference

9-11 July 2014

Lambex - SA

Sally Martin

Chief Executive Officer

**MerinoLink Limited** 

M: 0400 782 477

E: info@merinolink.com.au W: www.merinolink.com.au Welcome to the first MerinoLink Limited

Quarterly Newsletter. The aim of the Quarterly newsletter is to provide MerinoLink members with up to date information from trials and supporting information from our partners. In our first issues you are seeing the initial report of the MerinoLink Genomic trial.

MerinoLink has been operating, officially, for 12 months. We have successfully held our inaugural conference in March this year with some fantastic feedback, set up a Merino Sire Evaluation, commenced the Genomic Demonstration and Validation trial, set up the MerinoLink website and started distributing eNewsletters on a monthly basis.

The conference was attended by 115 attendees including -Commercial producers; Ram breeder – Merino and Terminal Breeders; Service provider -Stock Agents; Wool broker; NSW DPI Research Officers;

The average age of the attendees was 43 years!

University Students; and Peter Westblade Scholarship recipients. Of particular mention was the average age of the attendees – 43 years.

Attendees travelled from all over NSW, Victoria, South Australia and two international attendees from Kuwait and the USA.

Overall the conference was rated by the attendees 4.2 out of 5.

I hope you enjoy and value the newsletter and I look forward to the next 12 months.

Sally Martin

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MerinoLink Limited is a not for profit organisation that aims to facilitate sheep grower's and service providers link with information, knowledge and research.

MerinoLink's founding members are from a wide range of sheep businesses with varying production The systems. Members have been brought together by a common enthusiasm for profitable Merino sheep and a desire to continue to build their businesses. businesses and the sheep industries profitability as a whole.

MerinoLink is committed to assisting our members make better use of past and current research. In addition, MerinoLink aims to build networks and add value to existing and future research and development.

MerinoLink recognise the opportunities to work together to develop research projects for the future improvement of the Australian Sheep industry.

We aim to provide all members with access to industry organisations and facilitate a two way dissemination of information.

MerinoLink consist of producers and service providers moving our industry and members forward as fast and effectively as possible. This is made possible by MerinoLink's engagement with members and industry, education of members, exploration of

#### **MerinoLink CONTACTS**

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#### Progress Report - MerinoLink Genomic Validation Project May 2014

Contributed by Sally Martin on behalf of MerinoLink Limited

#### Introduction

Current industry recommendations are to genomic test the top 30% of progeny based on a mid-parent Australian Sheep Breeding Value (ASBV) and visual assessment. The genomic test result can then be used to identify the top performing rams and/or ewes to breed with. This process enables rams and ewes to be identified early, before normal phenotypic measurement and progeny testing, reducing the generation interval and eliminating the need to wait for phenotypic measurements.

MerinoLink Limited together with Bluechip Livestock had the opportunity to demonstrate the use of the new genomic technology in a commercial ram breeding enterprise and to validate the Research Breeding Values of the rams selected.

Out of the 2012 drop male progeny of the Bluechip Livestock Young Sire Program the top 28% were DNA sampled. A 50K SNP test was carried out and at the time (March 2013) Research Breeding Values (combined Genomic Breeding Value and Australian Sheep Breeding Value) were the product that was used to select the rams to mate to the 2011 drop ewes.

The 28% comprised of 3 to 4 rams from each of the 10 sire groups involved in the 2012 Bluechip Livestock Young Sire Program. The Research Breeding Value was used in conjunction with a second visual assessment to identify the top ram from each of the sire groups (10 in total). These rams were selected to be syndicate mated with the 2011 drop ewes run at the Temora Agricultural Innovation Centre.

The 2011 drop ewes and 2013 drop progeny were all DNA Parent tested to identify their full pedigree. All progeny are currently in the process of being objectively and visually assessed in line with the Australian Merino Sire Evaluation Association protocols to progeny test the 10 genomically selected rams.

**DNA Bloodcard Sample** 



DNA Bloodcard with barcode identification



2013 drop lambs



#### **Summary of activities**

- November 2012 Selection of top 28% rams based on visual assessment and ASBV (mid parent and wwt). From the 10 sire groups the top 3 to 5 were selected to be genotyped.
- <u>February 2013</u> the Research Breeding Values were used to select the top (1) 2012 drop ram per sire group to be syndicate mated to the 2011 drop sire evaluation ewes.
- <u>March 2013</u> the 10 month wool assessment was collected in line with the AMSEA requirements prior to the rams being syndicate joined to the 2011 drop ewes.
- June 2013 ewes were pregnancy scanned.
- August 2013 ewes started lambing.
- October 2013 lambs marked, tagged and AMSEA visual scores recorded on all progeny, DNA bloodcards collected; ewes wet and dried.
- November/December 2013 Lambs weaned and weighed; ewes DNA bloodcards collected.
- March 2014 DNA parent tests received.
- April 2014 post weaning weights collected on 2013 drop progeny.

#### **DNA Parent Test Results**

The DNA Parent test is based on the recent SNP research conducted by the Sheep CRC, MLA and the International Sheep Genomic Consortium (ISGC). The DNA Parentage test is suitable for all breeds of sheep and currently retails at \$17/test.

The DNA Parent test is expected to be more accurate than the existing Parentage tests and it is compatible with the SNP-based 12K and 50K tests meaning sheep will not have to be resampled.

All the ewes, sire and progeny were blood sampled (as shown in the photos above) to enable full pedigree of the progeny. The results were extremely positive with 100% of the progeny matched to a sire. Not all the dam DNA tests worked with 2.5% having a FAILED results. These ewes will be resampled and submitted to identify the remaining dam pedigree of the 4% of progeny that were unable to be matched.

Additional information generated from the DNA Parent test has been used to identify twinning ewes that have only reared a single lamb. Table 1 shows the combined Pregnancy Scanning, DNA Parent Test and Wet and Drying at lamb marking for the 22 different sires that have been evaluated within the Bluechip Livestock Young Sire Program and Sire Evaluation Programs.



- 100% progeny were match to a sire (325 in total to 10 sires)
- 4% (13) progeny were unable to be matched to a Dam
- 2.5% (7) Dam DNA tests failed

Table 1 - 2011 drop ewes pregnancy and lamb survival summary

Sire Group	l urop (	Pregnand	-		ar summary	Lamb S			
Code	Dry	Single	Twin	Triplet	Dry/LL	Single	Twin	Unknown	Total Ewes
1			12		2	5	5		12
1.1		4	8			7	5		12
2		1	9		2	1	5	2	10
2.1	1	3	10		1	7	6		14
3		4	6			7	3		10
3.1	3	3	4		3	5	2		10
4	1	7	5		2	9	2		13
4.1		2	8			5	5		10
5		2	10			8	4		12
5.1		6	5		4	5	2		11
6	3	5	9		5	7	5		17
6.1	1	6	9		3	8	5		16
7		3	6		1	4	4		9
7.1		7	9		3	10	2	1	16
8		1	3			2	2		4
8.1	2	4	4		2	7	1		10
9		3	5		3	2	3		8
9.1	2	5	8		6	8	1		15
10		2	9		1	6	4		11
10.1	2	2	8		2	4	6		12
11	2	25	18	1	9	25	12		46
12		3	2		3	2			5
Totals	17	98	167	1	52	144	84	3	283

**Note:** Sire groups with decimal point eg 1.1 belong to the Bluechip Livestock Sire Evaluation (2011); Sire groups with a single number eg 6 belong to the Bluechip Livestock Young Sire Program (2011)

Ewe efficiency was another outcome that could be determined using the DNA data. Table 1a and Figures (a) and (b) show the variation in total kilograms of lamb weaned per ewe highlighting the efficiency for the single and twin bearing ewes. This process also enabled ewes to be identified that have been pregnant with twins and only reared one lamb. Future work with the 2014 drop will look for repeatability of this trait (we are due to pregnancy scan ewes mid June).



Table 1a- Ewe Efficiency Summary

	Ewe Body	<b>Ewe Condition</b>	Lamb Weaning wt	Lamb PWT	Ewe
	Weight	Score	Average (kg)	Average	Efficiency (%)
Overall Average	60.1	3.6	34.1	44.8	57%
Average Single	59.7	3.6	26.1	33.6	44%
Average Twin	60.8	3.5	47.8	63.9	79%

Figure (a) - Ewe Efficiency (%)

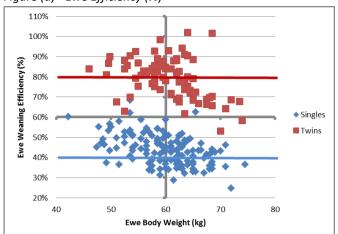
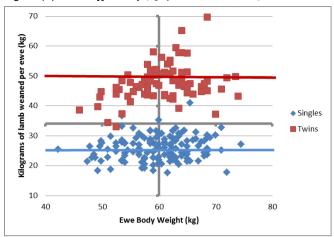


Figure (b) - Ewe Efficiency (kg of lambs weaned/ewe)



#### **Ram Selection Process**

The 28 percent of the 2012 drop rams were selected to be genotyped based on a mid-parent, weaning weight (WWT) ASBV and visual assessment. The range in the ASBV's and indexes was largely driven by the amount of data known on the parent ram source. The process of selecting the top 28% to genotype using visual and mid parent is considered current industry practice.

Figures 1 shows the range of rams selected for genotyping against the other rams in the drop using the Merino Production + index and Yearling Weight ASBV. Figure 2 shows the same information highlighting the rams selected per sire group. Figure 3 shows the sires selected to mate with the 2011 drop ewes.

Figure 1-2012 drop rams genotyped

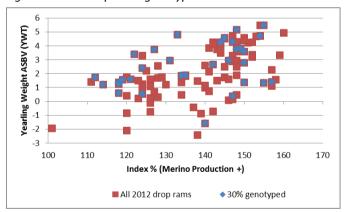


Figure 2 -2012 drop rams genotyped within sire groups

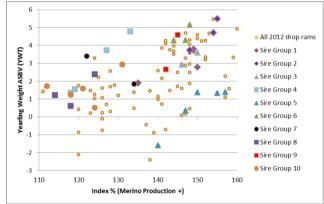
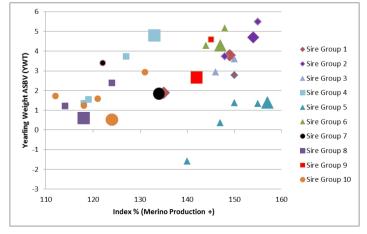


Figure 3 - 2012 drop rams selected to mate with the 2011 drop ewes



#### **Genomic Test Results on the Rams**

The rams were mated in a syndicate of 10 rams to 298 2011 drop ewes. Table 2 shows the number of progeny per sire based on the DNA parent test results. On average each ram sired 10% of the progeny (32 progeny) however the range was from 49 lambs (15%) to 12 lambs (3.7%). Table 2a shows the number of progeny per sire using the pregnancy scanning data to estimate birth type and the DNA data to account for rear type. Interestingly there were only two lambs scanned as a single and born as a twin (good feedback for the pregnancy scanner).

Table 3 shows a summary of the Research Breeding Values as at 3<sup>rd</sup> March 2013. These RBVs were used as part of the mating selection process.

The genotype results indicated if the sires had the horn and poll genes. The Sheep CRC has reported by using the Horn/Poll test you can reduce the chance of breeding horn Merinos by 80% in one year and eliminate it in 7 years (if testing both ewes and rams). Table 4 presents the phenotypic appearance of the progeny for horn, poll and scur against the Horn/Poll DNA test result of the sires, at this stage the progeny have not been tested for Horn/Poll. 3 out of the 4 PP rams have all progeny in either the Poll or with a Scur. The 2011 drop ewes have a mixture of Horn and Poll sire and dams and their individual status is unknown.

Table 2 - Summary of progeny per sire

Sire Group	Ram	Number of progeny	% of Progeny
2	120006	44	13.5
4	120060	12	3.7
5	120112	15	4.6
6	120159	35	10.8
7	120207	43	13.2
8	120251	49	15.1
9	120326	21	6.5
10	120357	70	21.5
1	121428	18	5.5
1	121437	18	5.5
Total		325	

Table 2a - Summary of sire progeny – birth type (pregnancy scanning data) relative to rear type (DNA)

	Born as Sin	gle (Pregnai	ncy Scan)	Born as Twin (Pregnancy Scan)			Totals
2012 drop	Reared as	Reared	Unknown	Reared as	Reared as	Unknown	
sires	Single	as Twin	Rear type	Single	Twin	Rear type	
120006	8	1		6	28	1	44
120060	4			2	4	2	12
120112	6	1		1	7		15
120159	7			7	20	1	35
120207	6			6	28	3	43
120251	18			9	22		49
120326	2			7	10	2	21
120357	21		1	13	33	2	70
121428	4			7	7		18
121437	2			8	7	1	18
Totals	78	2	1	66	166	12	325

Table 3 - Research Breeding Value Summary as at 3<sup>rd</sup> March 2013

Sire Group of Ram	Ram Tag	wwt	Acc WW T	PWT	Acc PWWT	DP+	Acc DP+	FP+	Acc FP+	MP +	Acc MP+	POLL HORN
2	120006	2.6	74	2.1	73	154	30	135	37	154	35	PH
4	120060	2.9	72	2.4	69	129	27	128	30	137	31	PP
5	120112	0.9	71	0.5	69	156	30	145	36	161	35	PP
6	120159	2.4	73	2.9	73	149	45	128	46	143	47	PP
7	120207	0.4	71	-0.6	68	138	30	127	32	135	33	PH
8	120251	0.5	71	0.4	68	123	28	121	31	127	32	PH
9	120326	1.1	72	1.2	71	144	33	127	37	140	37	PH
10	120357	0.7	71	-0.1	68	119	30	119	32	123	33	PH
1	121428	1.0	74	1.1	71	133	37	125	40	134	40	PP
1	121437	1.9	74	1.7	72	139	39	126	41	140	41	PH

Table 4 - Horn / Poll DNA test compared to number of progeny phenotypic trait

	Sire DNA Test	Progeny Phenotypic Trait Record			
Ram Tag	DNA Horn/Poll	Horn	Poll	Scur	Total
120006	PH	8	30	6	44
120060	PP		11	1	12
120112	PP		13	2	15
120159	PP	2	27	6	35
120207	PH	8	29	6	43
120251	PH	7	33	9	49
120326	PH	2	15	4	21
120357	PH	11	53	6	70
121428	PP		17	1	18
121437	PH	4	8	6	18
Totals		42	236	47	325

Figure 4 - Merino Production + index compared

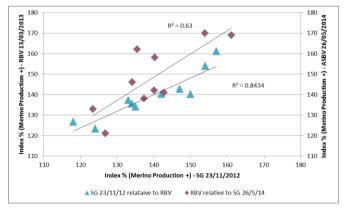


Figure 4 shows the Merino Production + (MP+) index for the 10 selected 2012 rams, the first comparison (blue triangle) shows the mid-parent MP+ index compared to the first Research

Breeding Value (RBV) MP+ Index showing a very high correlation (0.92). The second comparison (red diamonds) shows the RBV MP+ Index relative to the current MP+ Index (26/05/2014) with a high correlation (0.79).

#### Conclusion

It is too early to draw defined conclusions regarding the genomic predictions and ASBVs as we have only collected weaning and post weaning weight data. However, early analysis indicates that the DNA Parent test results are accurate and the experience throughout this demonstration/validation project has reinforced the importance of the test to the Merino industry.





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#### Accommodation:

The Sheep CRC has secured a number of rooms at the Grand Chancellor for Sheep CRC Conference delegates on the 8th, 9th & 10th July at the following rates: Deluxe Room - \$125 / Executive Room - \$145 / Breakfast - \$15 (until booked out). If you wish to take advantage of these rates please call the Hotel Grand Chancellor on 08 8231 5552 or email: reservations@hgcadelaide.com.au and quote "Sheep CRC Delegate". Please note that Sheep CRC Conference Delegates are responsible for booking and paying for their own accommodation and that rooms need to be booked at least 30 days prior to the event or they will be released and charged at their full rate.

#### Peter Westblade Memorial Merino Challenge - Wool Challenge (2014)

#### Contributed by Sally Martin on behalf of Craig Wilson & Associates

The Peter Westblade Memorial Merino Challenge is a platform for all breeding philosophies to benchmark the relative merits of a wide range of traits that have significant impact on profitability. The PWMMC is currently the largest commercial comparison of Merino genetics in Australia and extends to entrants being strictly commercial in size of their operation and not being a ram supplier or stud.

Table 1	2010-2012	2012-2014	2014-2016	Total
NSW	45	50	46	141
VIC	4	7	3	14
WA	1		1	2
SA		2		2
TAS		1		1
Total	50	60	50	160

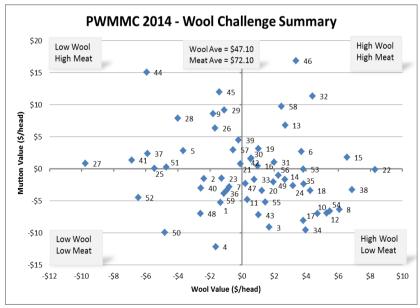
The PWMMC has currently inducted its third intake, attracting teams from NSW, Victoria and Western Australia. Table 1 shows a summary of the state of origin of the entrants in the three Challenges. There have been 160 teams evaluated for key industry meat and wool traits.

Of the 160 teams 45% are repeat entrants, either entering a team in all three Challenges or two of the three. The repeat entrants provide excellent linkage across years. There are 39 bloodlines or ram sources and 17 of the bloodlines are represented by two or more teams. All teams have been randomly drafted by

## 160 teams (entrants) 2010, 2012 and 2014 45% repeat entrants 55% new entrants over the three trials 39 Bloodlines/Ram Sources 17 bloodlines represented by two teams or more

an independent person to ensure an accurate representation of the entrants flock. The wethers entered are a vehicle to measure what is happening in the entrants ewe flocks.

The second shearing of the 2012-2014 PWWMC took place at the Temora Agriculture Innovation Centre (formally the Temora Agricultural Advisory and Research Station) in early March 2014. The wethers had been running together as one mob under the same management and nutrition for the duration of the Challenge.



The 2014 Wool Challenge shearing results continue to highlight the variation that exists within the Merino industry. This variation is consistent with previous years and trials. Table 2 shows a summary of the Wool Challenge average and the range for each trait and dollar value for individual sheep and teams in the Wool Challenge.

Figure 1 presents the combined wool and mutton values for the Wool Challenge wethers using a 5 year rolling average wool and mutton

price. The information presented gives entrants the opportunity to benchmark their flock and identify strengths and weaknesses that they can focus on in their future ewe and ram selection decisions.

Table 2 – 2014 Wool Challenge Summary

Trait	Unit	Wool Challenge Average	Individual Min	Individual Max	Team Min	Team Max
Fibre Diameter	Micron	18.8	14.6	27.1	16.6	24.1
<b>G</b> reasy Fleece Weight	kg	5.0	2.9	7.5	3.9	6.0
Sch Yield	%	59.8	38	74.1	52.7	66.8
<b>C</b> lean Fleece Weight	kg	3.0	1.5	4.9	2.3	3.8
Staple <b>Length</b>	mm	83.9	53.0	115.0	74.2	95.6
Staple <b>Strength</b>	N/Ktex	43.1	8.5	85.8	28.1	56.1
Clean Price	c/kg clean	1299	915	1865	915	1618
<b>G</b> reasy Wool Weight	kg	6.4	4.0	9.2	4.8	7.6
Clean Wool Weight	kg	3.8	2.1	5.8	2.7	4.7
Body Weight	kg	56.4	34.8	79.4	48.2	68.8
Fat Score	1 to 5	3.1	1.5	5.0	2.5	4.4
Body Wrinkle Score	1 to 5	2.0	1.0	4.0	1.06	3.18
Mutton Value (2014)	\$/head	\$72.15	\$40.50	\$105.27	\$59.88	\$89.99
Wool Value (2014)	\$/head	\$47.10	\$19.14	\$70.30	\$24.62	\$55.32
Sheep Value (2014)	\$/head	\$119.25	\$75.70	\$159.65	\$104.36	\$139.31

In addition to all the traits and per head values for wool and mutton, net profit per hectare is calculated to enable entrants an opportunity to compare with other enterprise types. The data collected at the 2014 shearing has been used to simulate a flock structure where the ratio of fleeces to sheep sold in any year is 2.5 to 1 and is consistent with the flock structure used in the National Merino Bloodline Performance analysis. In 2013/14 the Wool Challenge wethers were stocked at an average of 10 sheep to the hectare over the 11 months. A summary of the \$ per hectare and \$ per dry sheep equivalent (DSE) is presented in Table 3. The average net profit was \$300/ha. Looking at the top and bottom 20 percent of teams there was a \$93/ha difference with the top 20 percent cutting 700 grams more clean fleece weight and 1 micron finer than the bottom 20 percent with only 3.5kg difference in body weight (half a condition score). There was 61 percent difference between to top team and bottom team for net profit per hectare.

Table 3	Average	Top 20%	Bottom 20%	Difference Top/Bottom
2014 5yr Ave	\$300.57	\$338.50	\$245.30	\$93.20
\$/DSE	\$26.79	\$31.29	\$21.53	\$9.77
FD (Micron)	18.8	18.5	19.5	-1.0
CWW (kg)	3.8	4.1	3.4	0.7
BWT (kg)	56.3	54.1	57.6	-3.5

There was a **61%** difference between the top and bottom performing team for net profit per hectare.

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#### What is happening to sheep numbers?

#### Contributed by Andrew Wood, Mecardo | Source: AWPFC, ABS, AWEX

#### **Key points**

- The official forecast of a fall in sheep numbers of 3% for the season looks to be reasonable, if slightly conservative.
- The official forecast for wool production to fall by only 2.9% looks unrealistic as clean fleece weights will be lower, not higher.
- Wool production is more likely to fall by up to 8% for the full season.

The latest Australian Wool Forecasting Committee (AWPFC) estimate of sheep numbers in Australia is picking the Australian flock to shrink by 3% this season, with wool production falling by 2.9%. This article looks at these projections and what they mean.

One factor associated with changes in the flock size is the number of adult sheep that are sold off farm to abattoirs. When sales of sheep off farm rise above 10-11%, a shrinking of the flock is flagged. We can use this as a way to check the flock official estimates.

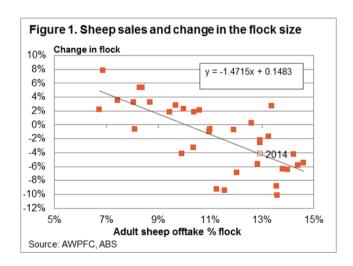
Figure 1 shows the number of sheep sold as a proportion of the flock (along the bottom axis) with the consequent change in flock size (shown on the vertical axis) from 1980 through 2013, along with an estimate for 2014.

Sheep sales account for about half of the change in flock size, so there are other factors at work. However, sale numbers are well recorded and reported, which is a rare commodity when looking at the sheep flock. Sheep sales in the past year have been running at around 13% of the flock. From the relationship shown in the graph, this suggests a fall in sheep numbers of 4.3%. The official estimate of a 3% fall is close to this and seems a reasonable, if conservative, estimate.

What about wool production falling by 2.9% for the season? We know sheep numbers are going to be down by 3-4%, so will fleece weights increase in order to compensate? Table 1 shows the change in fibre diameter for both merino and crossbred combing wool for the season. Both are lower.

Table 1: Change in fibre diameter								
2013-14	Merino	Crossbred Combing						
Merino	19.0	27.3						
Difference	-0.3	-0.5						
Source: AWEX								

Change in fibre diameter is strongly correlated with clean fleece weights so there is a very good chance that clean fleece weights will be lower, by around 5% given the size of fall in micron. That suggests that wool production will be lower than the forecast. On these numbers alone, wool production for the season is likely to be down by up to 8% for the 2013-14 season.



#### What does this mean?

Sheep numbers will be down this season as will clean fleece weights. This means there will be less sheep to sell next season and less wool. Given reasonable rainfall, sheep sales will fall sharply, which will help support mutton prices. Wool production will be lower again next season as the effect of lower sheep numbers continues to be felt.



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#### Where do ultra-fine Merino prices rise strongly?

Contributed by Andrew Wood, Mecardo | Source: AWC, WI, CSIRO, AWEX, ICS

#### **Key points**

- The inflection point in ultrafine merino prices is the point at which price rises per micron increase dramatically.
- As the merino clip has become finer during the past 25 years, the inflection point has also moved finer.
- The inflection point tends to be four to five microns finer than the median merino micron category.
- The proportion of the merino clip finer than the inflection point is around 0.2%.

The exciting end of the merino market is where prices rise very strongly as fibre diameter decreases. This is the inflection point in merino prices where the premium per micron increases dramatically. While it may seem like a distant memory in the current market, this article looks at the market structure that underpins this price inflection point.

Since the late 1980s, the median merino micron (the micron in the middle of the merino clip) has trended downwards from around 22 micron to 19.0 micron this season so far. During this period, the point at which large micron premiums appear has also moved finer, with the picture muddled by general wool price cycles.

Figure 1 shows the average price for combing merino wool by micron for the season to April. The price trends upwards gently until around 14 micron when it starts to rise very quickly. This is the inflection point in the ultrafine merino market for this season.

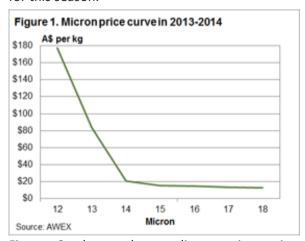
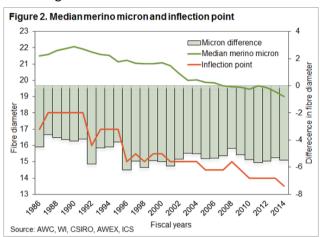


Figure 2 shows the median merino micron category since the mid-1980s, along with an estimate of the micron at which point price premiums per micron started to increases markedly. It is an estimate as some of the data is old and lacks detail. The difference between the

median and the inflection point is shown by the bars in figure 2.



In the late 1980s, the inflection point was around four microns finer than the median. During the last 20 years the inflection point has been between four and five microns finer than the median. For the mathematically minded, this is around three standard deviations finer than the median. The annual standard deviation of fibre diameter in the merino clip in recent decades has ranged between 1.7 and 1.8 microns.

How much wool is lucky enough to be priced at the higher level? The volume varies from year to year but, on average, we are talking about 0.2% of the clip being finer than the inflection point. Logically, this makes sense. Price rises strongly for a very limited supply of wool that is on the tip of the merino fibre diameter distribution.

#### What does this mean?

The headline grabbing prices that are paid for the finest wool in the Australian clip cover about 0.2% of the clip on a clean basis. Like most headlines it is much ado about nothing. As the Australian clip has fined up in recent decades, the point at which price rises per micron increases substantially has also moved finer. This inflection point is approximately four to five microns finer than the median merino micron category.



## One of Australia's leading All Purpose Merino's

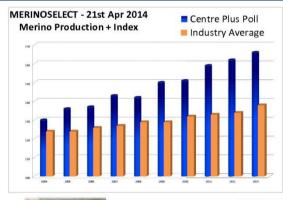


#### Measurably better Merino's.

- Top sires in Merinoselect database.
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- Top Bloodline (Av. 3 teams) in the PWM Wether Trial. \$11.45 per wether above the average. (2 fleeces, 1 carcase)
- Top growth rate, size & fattest. (Av. 3 teams) in the PWM Wether Trial.
- Top maternal Dams in Elmore *Ewes for the Future* Trial. Comparing 1<sup>st</sup> Cross, Merino, Centre Plus, Dohne, & SAMM ewes for Prime Lamb production over 4 years. Centre Plus ewes being \$25 per ewe per year more profitable than traditional merino's.

The cutting edge Centre Plus breeding program has been producing measureable, rapid genetic progress every year.

## **Open Day**second Friday in September





Contact: Robert Mortimer 02 6892 8259 Ram Sales: Terry Fishpool 02 6892 4029

#### **Encouraged by the next generation of Merino enthusiasts**

Contributed by **Annabel Lugsdin and Sally Martin** on behalf of the Peter Westblade Scholarship

The Peter Westblade Scholarship was established in 2012 to honour the late Peter Westblade, who passed away in 2008. Peter was a true visionary of the sheep industry, epitomising compassion and devotion to a cause.

The Scholarship aims to provide young people, who are passionate about the sheep and wool industry and aspire to have a career in this dynamic industry, with practical and networking opportunities.

The Peter Westblade Scholarship is designed to:-

- Provide practical education and mentoring for young participants in the sheep and wool industry.
- Encourage young people into the sheep and wool industry demonstrating and showing opportunities and career pathways.
- Promote, demonstrate and adopt new technologies within the sheep and wool industry

Over the past three years the Scholarship has been able to assist three recipients. The PWS is not prescriptive and works with the individual to develop a 12 month program that will extend and challenge their thoughts.



Joanna Newton was the inaugural Scholarship recipient in 2012/13 and had just embarked into her PhD. The PWS assisted Jo to attend key industry events and establish networks that contributed with her PhD, particularly in Southern Australia and NSW. Jo said she found it fascinating to see first-hand the differences in SA production

environments compared to Northern NSW (where she has been studying) and the experiences provided by the PWS gave her a great opportunity to connect with many industry contacts.



The 2013/14 recipient, **Annabel Lugsdin**, focused primarily on developing skills and networks particularly in the transition from study to employment. Annabel said the Scholarship

provided her with an array of opportunities to liaise with industry leaders in environments that encourages practical progression and creative thinking. Annabel attended Sheep Genetics workshops, presentation workshops, field days as well as assisting industry representatives in client consultations. Annabel commented that the networks gained through the Scholarship will last well beyond the duration of her time as the 2013 recipient.



The current 2014/15 recipient, **Ben Patrick**, is utilising the Scholarship to develop his interest in innovative sheep breeding practices, technology and

genomics. Throughout the year Ben will attend industry events, workshops and field days where he will have to opportunity to build upon his networks and practical skills. Ben aims to utilise the time to liaise closely with innovators, leading specialists and other like-minded individuals within the sheep and wool industry.

While there have been only three recipients over the course of the scholarship it has helped many more young people in the sheep and wool industry by providing them with invaluable networking opportunities.

This Scholarship looks set to continue its success in providing young people in the sheep and wool industry opportunities to gain experience and networks from industry leaders and attend events which might otherwise be out of there capacity.

The Scholarship gives the youth of the industry the ability to develop mentors and be exposed to innovative technologies which benefit the sheep and wool industry in both the short and long term future. Over time the Scholarship aims to be able to assist more than one person per year, once funds allow.

For more information go to www.peterwestbladescholarship.com.au.

## Sheep Genetics Regional Forums

Sheep Genetics is running a series of regional workshops across Australia during 2014 for all members of Sheep Genetics. The aim of these workshops is to help you increase your understanding of LAMBPLAN and MERINOSELECT and how to produce the most accurate ASBVs for use within your breeding program.

#### Dates are as follows:

- June 3rd Campbelltown, TAS
- June 11th Cowra, NSW
- June 17th Bendigo, VIC
- June 19th Bordertown, SA
- July 29th Katanning, WA









#### Wool ComfortMeter ready to drive demand for superfine wool

The opportunity for price premiums for superfine and ultrafine wools for next-to-skin applications can now be grasped by industry following the commercialisation of the Wool ComfortMeter and Wool HandleMeter.

Developed by Australia's Cooperative Research Centre for Sheep Industry Innovation (Sheep CRC) and now being marketed by the Australian Wool Testing Authority (AWTA), the technology is set to revolutionise the production and marketing of wool garments, with strong interest already received from leading fashion and sports brands, as well as wool processors and mills.

Used together the Wool ComfortMeter and Wool HandleMeter objectively and accurately measure the comfort and handle properties of light-weight wool garments, and provide an effective method of assuring next-to-skin comfort and predictable feel for the consumer.



"In setting out seven years ago to develop this technology, the end-goal was always to deliver equipment that was commercially

relevant and would create increased demand for Australian Merino wool by developing confidence in the quality of next-to-skin wool knitwear," Sheep CRC Chief Executive James Rowe said.

"These instruments demonstrate that if you wish to produce and market a superior next-to-skin product you must invest in a supply chain that utilises superfine and ultrafine Merino wool.

"The Wool ComfortMeter quantifies how comfort levels improve with finer the micron wools all the way down to 13.5 micron, creating a clear product differentiation and the opportunity for price premiums for superfine and ultrafine wools for next-to-skin applications."

AWTA Managing Director Michael Jackson said the commercialisation of the "ground-breaking technology" would deliver benefits to wool growers and industry for years to come.





"The Wool ComfortMeter and Wool HandleMeter go straight to the key issue of consumers' expectations of Australian wool and how this can be improved," Mr Jackson said.

"The technology provides retailers and brands with a means of differentiating their next-to-skin Merino wool products, enhancing consumer trust in their products and increasing their willingness to pay a premium for Australian wool."

The Wool ComfortMeter counts the number of fibres protruding from a fabric that could cause wearer discomfort, and then accurately predicts a consumer's response — crucial information for next-to-skin fabric manufacturers.

Wool 'handle' had traditionally been measured subjectively by judges, who often had differing views on a fabric's smoothness, softness, hairiness, tightness and perceived weight. The Wool HandleMeter overcomes this with objective data.

As the largest wool-testing organisation in the world, AWTA will provide fabric and garment testing services to wool processors, knitwear companies, fashion houses and garment retailers through its facilities in Melbourne, New Zealand and in China.

The market relevance of the Wool ComfortMeter and Wool HandleMeter was tested in a precommercialisation pilot trial run in which the AWTA provided a test service to a range of major Chinese knitwear companies, leading brands and retailers. The Sheep CRC also conducted workshops to showcase the equipment in Seattle, New York and London, and that were attended by brands including Nike, Nordstrom, Macy's and Brooks Brothers in the United States, and Jaeger, Next, Arcadia and Bodin in the United Kingdom.

The companies involved immediately recognised the potential value of the Wool ComfortMeter and HandleMeter for achieving a high level of quality and consistency in their branded wool garments; improving customer satisfaction; reducing customer returns; expanding sales and enhancing their competitive edge in the apparel retail.

The Sheep CRC developed the technology in conjunction with the CSIRO, Australian Wool Innovation (AWI), the Australian Wool Testing Authority (AWTA), Deakin University and the

Department of Agriculture and Food WA (DAFWA).

- Detailed fact sheets on the Wool ComfortMeter and Wool HandleMeter technology and how they benefit different areas of the wool supply chain, are available at www.woolcomfortandhandle.com.
- Companies wishing to test fabrics should contact AWTA, textiles@awta.com.au, or call +61 (03) 9371 2400.







#### **Trangie Merino Sire Evaluation – 2014 Field Day**

Thursday 19th June 10am at Trangie Research Station.
Results reported and sires' progeny penned for inspection.

Top sires from a wide range of Merino types and selection strategies.



You can be the judge of the genetics that will make you more \$\$



**RSVP** 

RSVP is a must: email: toni.george@industry.nsw.gov.au or Phone: 02 6880 8043

Where

Trangie Agricultural Research Station, 6km west Trangie on Mitchell Highway

More

call Brent McLeod - 0413 884 701 and www.merinosuperiorsires.com.au

#### Informative reports and lots of breeder discussion

#### Program: Start 10:00am sharp - Finish 4:00pm

- Trangie 2012 and 2013 drop results. Brent McLeod and Sue Mortimer
- \* How to get the most out of Sire Evaluation reports. Ben Swain
- Ewe bloodline effects on progeny performance. Sue Mortimer
- Inspection of 2012 and 2013 drop progeny. Matthew Coddington
  - > 2012 drop penned 24 sire x ewe groups, 2013 drop penned 12 sire groups
  - > How to Skin score. Robert Mudford
  - Visual trait scoring and Tops-Culls. Jim Meckiff
  - > Group Evenness. Cam Munro and Jim Meckiff
  - Pedigree Match Maker. Bill Murray

#### BBQ Lunch available - catering by Trangie Men's Shed

- Obtaining sire and dam pedigree easy and accurate? Tom Silcock
- Post weaning (8 month age) fleece traits research update. Sue Mortimer
- Can genomics add value to Merino ram breeding? Dr Rob Banks
- Achieving a sustainable future for sire evaluation in Central NSW. Discussion



#### Merinos - still the flock's mainstay?

Contributed by Andrew Wood, Mecardo | Source: BAE, ABARE, ABARES, AWC, MLA, ABS

#### **Key points**

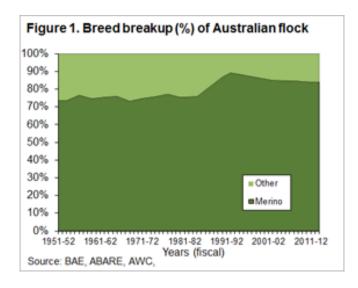
- Merinos make up about 81-84% of the flock currently; well down from the peak of 90% seen in the early 1990s but still above the 75% level that was the norm in the 30 years to the early 1980s.
- Calculation of the exact breed breakup of the flock is hindered by limited resources put into surveying of the flock, in contrast to the early 1990s and beforehand.

With the increased emphasis on sheep meat production during the past decade, it is interesting to look at the long term breed makeup of the Australian flock. This article combines the wealth of information available for the 1980s and earlier with the limited information now collected on the flock makeup to construct the long term breed makeup of the flock.

Figure 1 shows the proportion of the Australian flock that is made up by Merino sheep from 1951-52 through to the current season. The balance of sheep breeds are lumped together in an "Other" category.

The earlier triennial surveys of the flock from the 1950s and 1960s gave quite detailed breakups of the "Other" category. However, in the past decade (in particular), resources devoted to surveys of the Australian flock have fallen away with a consequent lack of data now available. If anyone has missed the point, this author has a bee in his bonnet about this lack of background work as it greatly limits the modelling than can be carried out on the sheep and wool industries.

It is sometimes easy to assume that recent changes represent a variation from the norm. This is not always so and figure 1 is a good example. It shows that the high proportion of Merino sheep in the flock that was reached in the early 1990s was an aberration.



In the three decades to the early 1980s, Merinos made up about 75% of the flock. With the rise of wool prices in the second half of the 1980s, together with the mirage of limited price risk due to the wool Reserve Price Scheme, the proportion of Merinos rose to nearly 90% in the early 1990s. Since then, it has gradually slid back down to around 81-84% (depending on how it is calculated), which is still above the pre-1980s level.

#### What does this mean?

The rise in sheep meat prices since the mid-1990s in relation to other extensive commodities, especially wool, has brought the Merino component of the Australian flock back to levels more in line with long term trends.

Despite the considerable focus on lamb production, benchmarking in recent years by Holmes Sackett shows that flocks producing wool and lamb have performed the best. This would explain why the Merino proportion of the flock has stayed at relatively high levels.

#### Sheep Genetics - Analysis and reporting Update

Daniel Brown from AGBU and Luke Stephen from Sheep Genetics recently held a webinar to bring Sheep Genetics members up to speed on recent updates. If you missed this and would like to get up to speed you can view the recording of the webinar on the Sheep Genetics website via the following link.

http://www.sheepgenetics.org.au/Updates/Analysis-changes

## Analysis and Reporting Updates for LAMBPLAN and MERINOSELECT

At the completion of the 21st of April 2014 MERINOSELECT run and the 15th of April 2014 LAMBPLAN run some analysis updates were implemented. The following table outlines the changes being made and which part of the analysis will be influenced.

	LAME	BPLAN	MERINOSELECT		
	Terminal	Maternal	Merino	Dohne	
RBVs to ASBVs	Υ	Υ	Υ		
Yearling repro groups	Y	Υ	Υ	Υ	
Extra adult weights	Υ	Υ			
Carcase traits	Already applied	Υ			
Index updates			Υ	Υ	
Genetic groups in the visual analysis			Υ		
Reproduction trait analysis				Υ	

#### **Both LAMBPLAN and MERINOSELECT**

#### Research Breeding Values (RBVs) to Australian Sheep Breeding Values (ASBVs)

Where applicable an ASBV will now incorporate genomic information in the routine analysis. To date breeding values with genomic information (from DNA testing) have been reported as an RBV (research breeding value). ASBVs, as always, aim to predict an animal's genetic potential by making the best use of available information. This includes performance records and pedigree information. Genomic information will now also

be incorporated alongside all other sources of information to provide the most accurate ASBV possible.

Animals that have genomic information incorporated into their ASBVs will have a flag against them when reported on the website.

The new traits, such as eating quality traits, will also be visible on the website but will continue to be referred to as RBVs.

#### Yearling reproduction groups

It has been identified that there were some minor issues with grouping in the MERINOSELECT and LAMBPLAN reproduction analyses with regards to yearling lambing. The grouping methodology has been improved to provide more accurate information contributing to the ASBV for yearling number of lambs weaned (YNLW).

Breeders currently recording this trait may notice some slight changes in their ASBVs for YNLW however NLW should remain stable

#### LAMBPLAN only

#### **Extra adult weights**

Adult weights submitted as "ewe weight at joining" are now being utilised in the Terminal and Maternal LAMBPLAN analysis.

- Terminal = 4,711 animals (9,861 new records utilized)
- Maternal = 3,064 animals (5,508 new records utilized)

Development work is also underway to utilise repeated adult weight measurements in the analysis. Breeders are encouraged to continue to measure and submit repeated adult weight measurements to assist the development.

#### **Carcase traits**

Already within the terminal analysis and now also in the maternal analysis, extra information is being captured from kill data for the traits of carcase weight, carcase fat and carcase eye muscle depth. This information will be used as correlated information to add increased accuracy to the already reported ASBVs for growth and carcase.

#### **MERINOSELECT only**

#### **Index updates**

Following requests from breeders AGBU have looked at the MERINOSELECT indexes and have recommended that the following changes be implemented to the MERINOSELECT weighting:

- Reduced emphasis on staple strength for Dual Purpose Plus index
- Reduced emphasis on staple strength and greater wool focus for Merino Production plus (MP+) index
- Reduced emphasis on staple strength, removal of curvature for Fibre Production plus (FP+) index

The changes to the DP+ and FP+ indexes are relatively minor, however you may notice that the MP+ index might re-rank a few animals depending on their ASBVs for YCFW and YSS.

If you want further information please feel free to contact Luke Stephen on 02 6773 2948 or email <a href="mailto:info@sheepgenetics.org.au">info@sheepgenetics.org.au</a>

#### Genetic groups in the visual analysis

Genetic groups are currently used in the MERINOSELECT analysis for the majority of the production traits with the exception of the visual trait analysis. The introduction of genetic groups to visual traits will now more accurately reflect the differences between flocks in the run.

There will be some changes to how your breech strike resistance traits look and rank in the MERINOSELECT analysis. There are larger changes in Early Breech Wrinkle (EBRWR) than there is for Late Dag (LDAG).

#### Dohne only

#### Reproduction trait analysis

The major change to the Dohne ASBV analysis is the introduction of the reproduction analysis. Direct reproduction records will now be utilised to calculate the ASBVs for Number of Lambs Born (NLB) and Number of Lambs Weaned (NLW).

As reproduction also makes up a significant part of the index there will be significant differences in the ABS Dohne index. To be able to account for flocks that aren't recording reproduction an index that does not include reproduction traits will be created for the Dohne Analysis, more information will be sent out to breeders regarding this in the upcoming weeks.

#### Reporting changes

The Dohne Analysis has been moved from the 1st and 15th of the month to the 7th and 21st of each month with David Rubie now responsible for processing. Although the date has changed, ASBVs will still be made available to you in a timely manner. Data will still need to be submitted through the usual channels.





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