HILL PADUA POLLS NEWSLETTER

July 2023

2023 has presented a very challenging beginning, with a really late break of the season and very short overall rainfall and markets that have in our opinion hit the lowest point for some years.

To keep a strong confidence, we like to put the balance over the last 3 to 5 years and we do understand that we had in the last 2 years top prices and excellent production, quite opposite of what we are living now but give us a different perspective of our business and the industry. Also with very volatile prices not only for our final product but also the cost of production, it is for certain very difficult to make decisions.

In our honest opinion good genetics and more efficient animals are part of the answer to make the most of every mixed farming business. We believe that we have some of the most profitable genetics for today and the future.

Rams in Photo: HP221295 (left), HP221731 (middle left), HP220742 (middle right), HP220070 (right).

High Fertility + High performance lambs.

One of the biggest differences between our merinos and the traditional merino is the fertility and the maternal ability of our ewes.

Mating was done in the same hot conditions, and we had an excellent scanning result on our flock ewes. 1523 ewes pregnant with 2554 fetuses in 1585 ewes mated, for a conception rate of 96.2% and pregnancy rate of 161.5%.

On the stud ewes we had a bit of trouble with a couple of Single Sires that didn't perform this year. HP200007 was sick for part of the mating and missed 30 of 80 ewes. And HP200869 decided to have a summer holiday and missed 26 out of 50 ewes mated to him. These things are always on hand on the stud side, it doesn't take much for something to go wrong when there is only one ram in a mob and no one to back him up. We remember back in 2019 when one of our best sires HP190523, mated as a lamb back then, impregnated one out of 40 ewes, but he did a good job with that one having twins. 2023 Stud ewes scanning result: Ewes mated: 1206. Ewes pregnant: 1105. Fetuses: 1809. Conception rate 91.6%. Pregnancy rate 150%.

In 2023 we had one of the toughest beginnings of the last 5 years, with a really late break of the season, having the first decent rain beginning of June, and having some grass available mid to late June. Our lambing begins around the 20th of May, and it goes on for 6 weeks, so lambing was mainly on dry conditions and nice weather, but with our pastures not producing any grass. Supplementary feeding was needed through lambing to feed the ewes and lambs.

This is something we rather not to do, it creates problems bringing all the ewes and lambs to feed at the same spot. A lot of mismothering can happen, and we thought that we were going to be in trouble but there was no way around it, they needed supplementary feeding.

The excellent maternal instinct of our ewes and the low number of ewes per mob was part of the reason why we still had a good result. We now have 3436 healthy lambs marked of 2791 ewes mated. For an excellent result in a tough year. 123.1% lambing to ewes mated, or 130.7% to ewes pregnant.

On the next table is the last 3 years' lambing %.

	2021	2022	2023	AVERAGE 3 YEARS
NUMBER OF EWES MATED	2909	2827	2791	2842
PREGNANT EWES	2808	2722	2628	2719
NUMBER OF LAMBS MARKED	3533	3653	3436	3540
LAMBING %	121.5	129.2	123.1	124.6
LAMBING TO PREGNANT EWES	125.8	134.2	130.7	130.2

Our lambs are very efficient at gaining weight and reaching finished conditions to approach the meat markets. For the last 3 years we have sold all our whether lambs with weights between 55kg to 60kg, at 6 to 9 months of age. We also managed to get 1 shearing of them before they go with very good SL (Staple Length) and low micron that makes a very valuable fleece.

Also, our lambs have excellent dressed yield, normally as high as XB lambs and 3 to 4% higher yield than traditional merinos.

We have had reports from plenty of clients reaching high lambing %, in many cases higher than our results. It is in our clients where we find our biggest confidence, as they are the true expression of our bloodlines.

Improved wool cut

We listen to our clients, and one of the criticisms we have in the past was the wool cut of our animals. In 2019 we decided to chase more wool, believing that our animals had the potential to increase the wool cut and to hold on to their fertility and carcass Performance. Back in 2019 the wool cut of our ewes was below 5kg per ewe.

We always measure the wool performance once a year, and that is on pre lambing shearing which is the only time we do our adult ewes only. This year we had a wool cut of 2.8kg per head with an average Staple Length of 70mm on our adult ewes for 6 months shearing and coming out of summer. Our winter shearing always does a bit better than summer one, so we know we are now sitting over 5.6kg of wool per head with 19 micron. Once we introduce the new generation and take out some older ewes, we are confident that that number will be closer to 6kg per head, that was our goal 3 years ago, and that's where we want to stay.

High Growth, Emd and Fat

Importance of high Genetic Fat FAT: Animals with higher levels of Fat have a superior resilience against nutritional and environmental challenges. Animals with good levels of Fat normally allow our sheep to cruise on high performance mode regardless the seasons variations. When a flock has high levels of Fat normally you could increase stocking rates by reducing maintenance requirements, lambs will be born with more energy to survive and perform from birth, and animals will maintain body weight and score condition in tough times. Improves the reproduction of animals.

Importance of high Eye Muscle Density EMD: Animals with high levels of Emd are normally strong animals, on the ewe side, it will increase reproductive rates, and on our lambs will increase the dressing %. It is highly related to worm resistance and higher Staple Strength. In other words, stronger and healthier animals.

One of the busiest but also very exciting parts of the year is when we take all the yearling measurements in our young animals, these measurements give us a clear indication of the breeding direction and help us to understand our animals in a better way.

The measurements for Yearling Weight, Eye Muscle Density and Genetic Fat are normally late April, and our animals are 11 months old then. They run through a scale where the weight is recorded and the Emd and Fat measurement is taken by Michael O'Neill, who has been scanning all our young animals for 13 years now. He literally has seen every animal and every generation on this farm, and he has a huge understanding of our evolution on those traits.

Our ewes normally measure higher for Fat than our Ram lambs, and our Rams normally higher for Emd. Some huge results came through this year, we had last year 12 animals in total over 5mm for fat through 1300 animals measured, this year we recorded 43 ewes and 11 Ram lambs over 5mm of Fat on same number of animals measured.

The average Fat on our ewes for this year was 3.8mm on 660 ewes. David had an interesting comment about this: "Back in the days a 3.8mm measurement was that special ewe only, today that's the average". The top fat measurement was 8.2mm for a HP190523 daughter, Sister of the top ewe measurement last year with 7.5mm and the 2021 top Ram Measurement with 5.7mm for who have become one of our top Sires HP210273.

All our animals are run all year as one mob for the Ewes, and one mob for the Rams, always Paddock run which makes all these to be true and honest measurements.

Hill Padua Polls Genetic Trends.

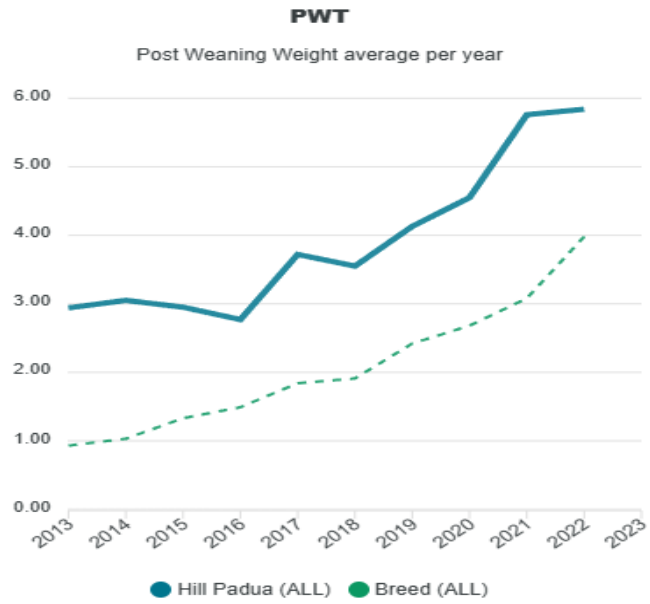
With our Data Submitted to Sheep Genetics for 14 years we have the chance to follow and understand the improvements, developments, and the direction of our breeding for each individual ASBV trait.

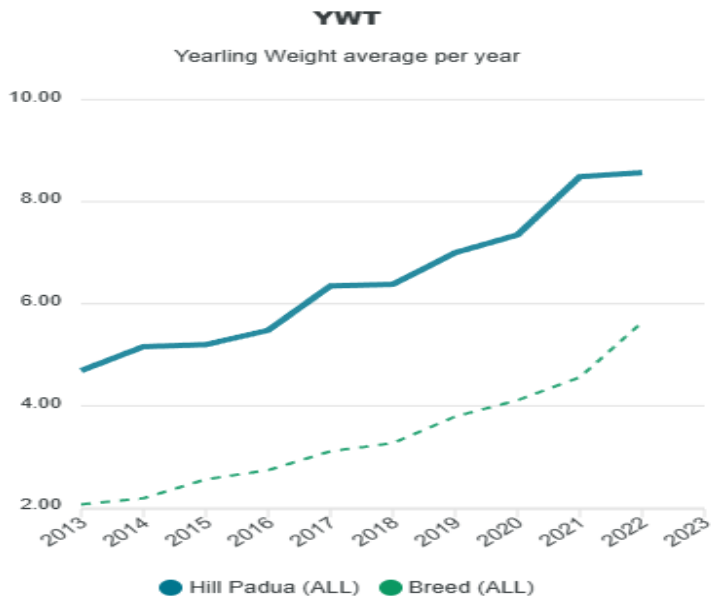
In the next tables is the Genetic Trends of our animals (each year drop, Rams and Ewes) compared to the averages for Merinos in Australia for the main traits we normally use.

Growth Traits:

The tables used below are supplied by SheepGenetics (MLA).

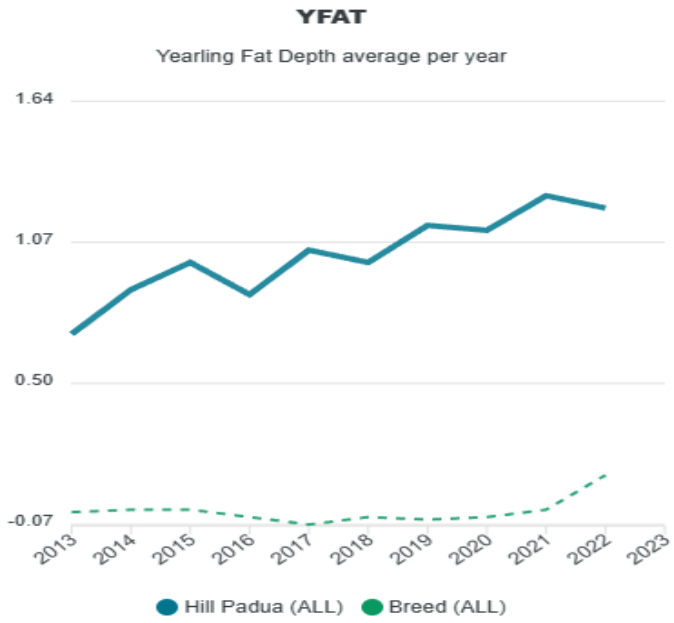
In blue Hill Padua Polls, In green Merino Average. Our Animals are sitting way above average for these two traits. With our high selection of Rams, I would say that most our Sale Rams will be positive for Growth to most flocks throughout Australia.

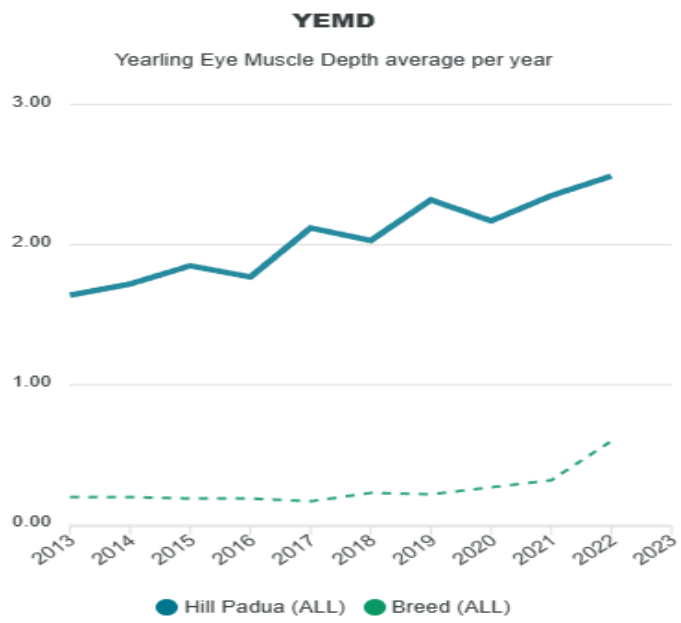




Carcass traits:

In blue Hill Padua Polls, in green Merino average. In these two traits we consider our Stud to be one of the top performance studs in the country, with animals being in the top 10 for these traits in the country on a data base of over 80,000 animals born and submitted to Sheep Genetics in 2022. Rams like HP220025, who will be part of our sale team is No 9 in the country for his YFAT. HP220043 No 2 in Australia for YEMD, HP221439 No7 in Australia for YEMD, and HP221140 No10 in Australia for YEMD.





Wool Traits:

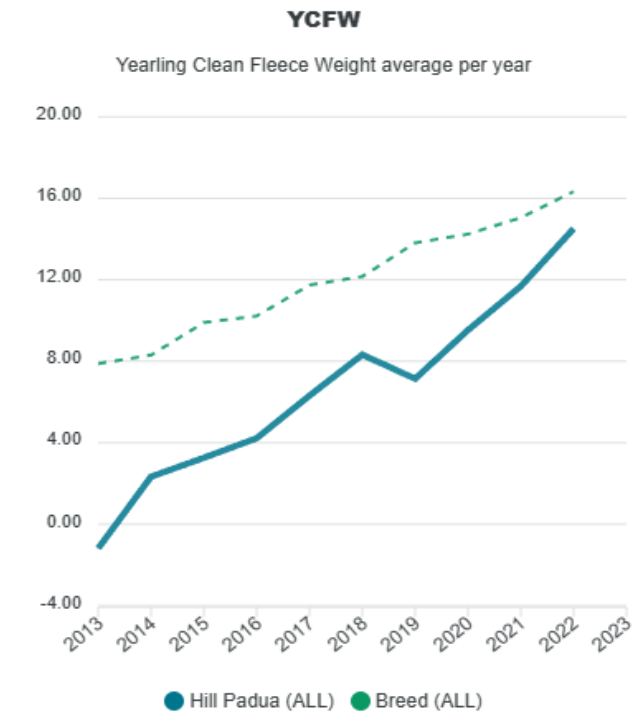
In blue Hill Padua Polls, In green Merino Average in Australia. We have been working hard on our wool, and as the first picture shows we are closing the gap with the industry average for YCFW.

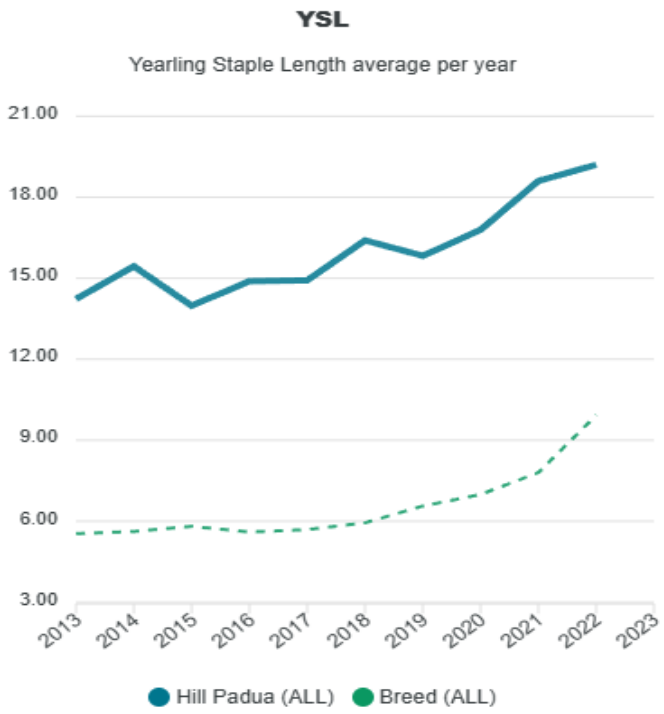
With our high selection within our Rams, Most of the Rams that will form our Sale Team will have above average YCFW.

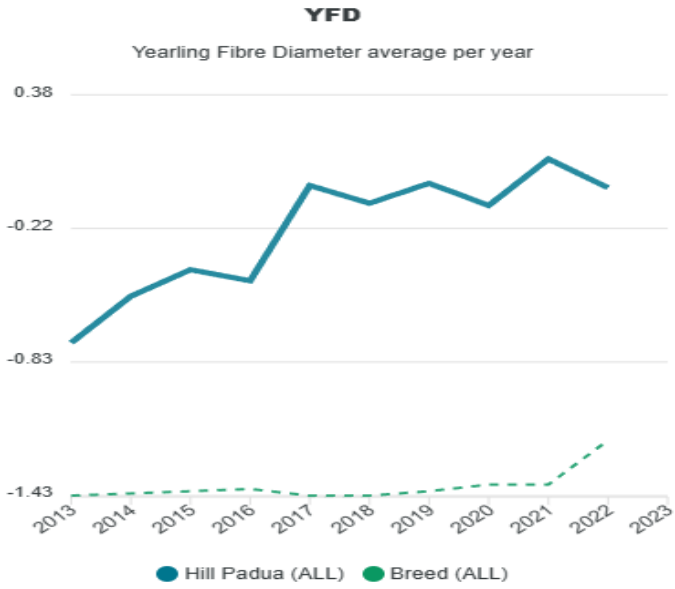
Staple Length, we are positioned as one of industry leaders. Which gives our clients the option of shearing twice per year depending on their own decision. For this trait we have 4 Rams in the top 10 Rams in the country out of 76,392 Rams.

For YFD (Micron) we have been using lower micron rams within our sires, and corrective mating all our ewes in the stud, we are working on bringing micron down as we increase wool cut, this way we will increase the value of the fleece per

animal. The challenge is to do this without losing any Fertility, Growth or Carcass traits. As the pictures show, we are improving on YCFW, reducing Micron, and still improving our Staple Length.







Measurements and Raw Data.

The Raw data is all the measurements we made through the year to each one of our new generation animals.

The Raw data then is submitted to Sheep Genetics, and with the animals DNA and Genomic test we can find their pedigree for a better estimation of their breeding values. We spend a lot of time analyzing, comparing, and understanding our animals' Raw data and their ASBVs. Often, there are things we do not understand, for these situations we have the support of Belinda Steers who is our Data Manager. She has a deeper understanding of everything related to ASBVs.

It has become important for us to look not only at ASBVs, but also the Raw data in some cases, especially when we decide the top end Sires.

For this year in the Ram Sale catalogue, we will include the Rams CFW% (Clean Fleece Weight % Raw Data) which is the Rams performance in the last shearing compared to the 600 Rams measured. We will also include the weight at 11 months old which is considered yearling weight for ASBVs.

Ram and Ewe Sales.

Our 2022 Annual Ram Sale was very good for our Stud, confirming that our clients remain happy and loyal with our genetics.

The Ram Sale presented a full clearance of 124 Rams sold out of 124 Rams available, with an average price of $1870 per Ram. After the sale the demand was high for our Helmsman Sale (Rams in shed after Sale) selling another 38 Rams for an average price of $1000

Our top price Ram, $6000 was a beautiful Dual-purpose Ram, with beautiful structure, High YFAT, high YEMD and with a beautiful, long and soft fleece with 16.2 micron.

This Ram had a high stud profile, and we were a bit sad to let him go, but happy that he went to a really good home, the Alexander Family from Narrogin.

Our ewes had once again high demand, with all or ewes going to repeated clients for breeding purposes. The young ewes went to McNamara family from Badgingarra, while the older ewes went to another long-time client Justin Manns, Beverley.

YARDSTICK SIRE EVALUATION

The tables used below are property of Yardstick Sire Evaluation.

2021 was the first time for the stud to introduce a Sire to a Sire Evaluation. We sent HP191060 Yardstick (Katanning Station) in 2020 to have his progeny measured and compared to other Sires in Australia.HP191060 is a Ram with good Growth, good Fat and Emd, and good fleece weight with a shorter Staple Length. A good Dual Purpose Ram that delivered good progeny for last year's Ram Sale and he will again have some good Rams in this year's Ram Sale.

He dominated the Dual-Purpose aspect of the evaluation, been selected the top DP+ Ram with a really good performance for Growth, Fat and Emd.

Yardstick evaluates the progeny performance of each Sire in the same conditions.

Table for Weight, Carcass, and WEC: In this table we can see HP191060 progeny performance was always within the top 3 for Growth, being the Top for Post weaning weight.

Also was by far the best performance Sire for EMD (Eye Muscle Density) and FAT (Genetic Fat).

For WEC (worm egg count) he was within the average, this is a trait we cannot measure for our conditions in Three Springs

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

Sire Code	Breeders flock, Sire name	Number of Progeny	Flock Breeding Values						
			WT kg				EMD mm	FAT mm	WEC %
			W	P	Y	H	Y	Y	P
1	Belmont Park Poll, 190553	44	-1.7	-1.5	-3.1	-3.3	-1.1	-0.1	-17
2	Billandri Poll, 192604	55	1.0	1.2	3.1	4.3	0.7	0.3	24
3	Boolading Blues Poll, 180418	46	1.3	3.4	5.5	7.2	-1.4	-0.1	36
4	Coromandel Poll, 180193	29	0.2	-1.4	0.5	-0.2	0.4	-0.2	3
5	Cranmore, 190125	38	1.5	1.5	0.7	-0.9	0.1	-1.2	-12
6	Edale, 15X370	35	-3.4	-6.7	-8.4	-9.1	0.7	-0.4	0
7	Hill Padua, 191060	35	1.3	4.9	4.2	5.0	2.8	2.7	11
8	Merinotech WA Poll, 177676	45	1.1	1.3	0.8	-0.3	1.6	0.9	18
9	Miramoona, 140012 (Link)	34	-0.5	-0.9	-2.4	-2.2	0.4	0.9	-27
10	Nepowie Poll, 200146	13	2.6	4.8	4.8	4.3	-0.9	-1.1	-36
11	Wattle Dale, 190730	39	-0.1	-0.9	0.8	1.4	-1.5	-1.3	45
12	Yarrawonga, 170193 (Link)	52	-3.4	-5.7	-6.5	-6.3	-2.0	-0.5	-20

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

Table for Visual Traits: In this table we can see that HP191060 had very good measurements. It was one of the two best rams for BCOV (Breach Cover), which is very good for non mulesed animals, a clear example that our bloodlines don't need mulesing. HP191060 was also the best sire for BWR (Breach Wrinkle) at marking and BWR as hogget, a clear example of our bloodlines been wrinkle free, easy-care animals.

Table 4. Visual Traits - Breech

Visual traits are reported as reported as **Adjusted Sire Means**; Results which have been adjusted for made for all available information on sex, birth type, rear type, age of dam, age of measurement, the number of progeny a sire has and management group(s), in order to improve the accuracy. No account is made for trait heritability or genetic correlations between traits that can further improve the accuracy.

Sire Code	Breeders flock, Sire name	Number of Progeny	Breech Visual Traits					
			BCOV *Marking*	BWR *Marking*	BCOV *Hogget*	BWR *Hogget*	CCOV *Hogget*	DAG *Hogget*
1	Belmont Park Poll, 190553	44	5.0	2.5	3.1	1.9	3.3	2.0
2	Billandri Poll, 192604	55	4.9	2.3	3.1	1.8	2.6	2.8
3	Boolading Blues Poll, 180418	46	4.8	2.3	3.2	1.8	2.8	2.0
4	Coromandel Poll, 180193	29	5.0	2.5	3.5	1.5	3.2	2.4
5	Cranmore, 190125	38	4.9	2.6	3.2	2.5	3.7	2.0
6	Edale, 15X370	35	4.9	2.6	3.2	2.5	3.4	2.1
7	Hill Padua, 191060	35	4.8	1.9	3.1	1.1	3.2	2.1
8	Merinotech WA Poll, 177676	45	4.9	2.4	3.0	1.5	2.8	1.7
9	Miramoona, 140012 (Link)	34	4.9	2.0	3.0	1.4	3.3	2.0
10	Nepowie Poll, 200146	13	5.0	2.0	3.1	1.5	2.7	2.2
11	Wattle Dale, 190730	39	5.0	2.6	3.4	2.2	3.7	1.5
12	Yarrawonga, 170193 (Link)	52	4.9	2.6	3.5	2.1	3.6	1.8
	Average performance	**39**	**4.9**	**2.4**	**3.2**	**1.8**	**3.2**	**2.1**

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

Table for Wool: We know our animals, and we understood that this was something that we were not going to be on top. We did expect to be on average or close to average compared to high Wool Cut Sires. Our sire did 100 grams below average, for what we considered a good performance. Also his progeny micron wasn't too high and his Staple Length was very good for a Ram that we have always considered to be Short Staple Length.

Table 5. Adjusted Sire Means - Wool

Breeders flock, Sire name	Number of Progeny	Adjusted Sire Means GFW kg H	CFW kg H	FD µm H	FDCV % H	SL mm H	SS N/ktex H	CURV deg/mm H
Belmont Park Poll, 190553	44	4.9	3.5	17.6	18.1	97.9	45.0	87.6
Billandri Poll, 192604	55	5.2	3.8	17.2	19.2	108.0	43.0	85.1
Boolading Blues Poll, 180418	46	5.5	3.8	17.9	18.2	107.1	44.8	84.4
Coromandel Poll, 180193	29	4.9	3.6	16.7	19.7	94.8	43.3	83.2
Cranmore, 190125	38	5.8	4.1	17.2	19.6	104.4	40.4	82.6
Edale, 15X370	35	4.7	3.4	16.7	19.4	103.3	44.3	97.0
Hill Padua, 191060	35	4.7	3.5	17.7	18.5	112.7	44.0	84.3
Merinotech WA Poll, 177676	45	4.3	3.0	17.7	17.7	97.6	47.6	102.1
Miramoona, 140012 (Link)	34	4.9	3.5	17.6	18.8	108.2	44.1	81.6
Nepowie Poll, 200146	13	5.5	3.7	17.5	17.8	120.1	43.5	86.1
Wattle Dale, 190730	39	5.6	3.9	17.5	19.1	105.4	43.8	87.8
Yarrawonga, 170193 (Link)	52	5.0	3.5	17.0	18.7	103.3	41.7	84.2
Progeny group average	**39**	**5.1 kg**	**3.6 kg**	**17.4 µm**	**18.7 %**	**104.5 mm**	**43.8 N/ktex**	**87.3 deg/mm**

These Adjusted Sire Means were calculated using available data from both ewe and wether progeny.

Table for Indexes: HP191060 was the Top DP+ (Dual Purpose Plus) Sire in the evaluation.

Table 9. AMSEA Indexes

The indexes reported are the DP+; MP+; FP+ and WP+. The first 3 of these indexes are the same as MERINOSELECT indexes of that name but account for the fact that direct reproduction records are not currently collected as part of standard sire evaluation trials. The WP+ index is unique to AMSEA. Further information about Indexes is available earlier in this report and at www.merinosuperiorsires.com.au/resources. The average value for all indexes is 100.

Sire Code	Breeders flock, Sire name	Number of Progeny	AMSEA Index Values Dual Purpose Plus	Merino Production Plus	Wool Production Plus	Fibre Production Plus
1	Belmont Park Poll, 190553	44	77	89	88	96
2	Billandri Poll, 192604	55	127	121	123	111
3	Boolading Blues Poll, 180418	46	117	128	132	112
4	Coromandel Poll, 180193	29	112	108	102	111
5	Cranmore, 190125	38	120	120	127	117
6	Edale, 15X370	35	72	74	67	89
7	Hill Padua, 191060	35	130	96	99	89
8	Merinotech WA Poll, 177676	45	85	62	55	67
9	Miramoona, 140012 (Link)	34	90	87	89	92
10	Nepowie Poll, 200146	13	109	112	113	109
11	Wattle Dale, 190730	39	101	118	120	108
12	Yarrawonga, 170193 (Link)	52	60	86	85	97

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

In 2022 we introduced to Yardstick our Sire HP200007. His progeny is measured through this year. This is a Good Dual-Purpose Sire, with good Growth, positive FAT and EMD. Here we can see that his first measurements are positive being within the Top 3 sires in most measurements.

Adjusted Sire Means

These adjusted sire means are the average performance of all the progeny of a sire adjusted for an individual's birth type, rear type, sex, age of dam, management group and differences in progeny group sizes. Adjustments improve the accuracy of the result and the size of the adjustment is based on the actual influence of these factors on the drop. No account is made for the difference in the age of the progeny, trait heritability and genetic correlations between traits. The overall progeny group mean is listed at the bottom of the table.

Breeders flock, Sire number	Progeny No*	Adjusted Sire Means	Breech Traits BRWR Marking	BCOV Marking	DAG Post Weaning	Weights WWT (kg)	PWT (kg)	Carcase PEMD (mm)	PFAT (mm)	Condition Score Post Weaning
Billandri Poll, 200210	61		2.2	3.7	1.6	28.9	44.1	23.1	2.3	3.2
Claypans Poll, 170632 (Link Sire)	55		2.5	3.9	1.8	28.1	42.8	22.7	2.4	3.1
Coromandel Poll, 180419	59		2.2	4.0	1.5	29.1	44.7	23.0	2.6	3.2
Cranmore Poll, 201246	50		1.7	3.4	1.6	28.2	45.9	23.2	2.7	3.3
Edale, 15Z035	62		2.7	3.4	2.1	27.2	42.4	22.1	2.7	3.2
Glenerin, 190013	40		1.7	3.6	1.9	28.0	44.4	23.8	2.6	3.3
Hill Padua, 200007	56		1.6	3.6	1.4	30.3	46.0	24.4	2.8	3.3
Ingle Poll, 200259	56		1.7	3.8	1.8	27.5	41.0	22.6	2.7	3.2
Lynford Farms, 200352	54		2.0	3.2	1.5	28.4	44.2	24.0	3.0	3.3
Merinotech WA Poll, 188786	56		2.2	3.5	1.4	27.8	44.6	24.5	3.2	3.4
Moorundie Poll, NE73 (Link Sire)	41		2.2	3.2	1.2	30.1	44.0	23.4	2.5	3.1
Nepowie Poll, 180008	50		1.6	4.0	2.4	30.2	46.6	24.6	2.8	3.3
Mean	**53**		**2.0**	**3.6**	**1.7**	**28.6**	**44.1**	**23.4**	**2.7**	**3.2**

*Progeny number at weaning.

We have gained confidence in our Sires performance when compared to other sires in the same conditions. This year we have introduced to Yardstick Sire Evaluation our Sire HP211050, and we have also introduced to Balmoral VIC Sire evaluation our Sire HP210273.

Both these Sires progeny will be evaluated in 2024.

2023 RAM SALE Monday 18th September.

Our Annual On-Property Ram Sale will be on Monday 18th of September at Hill Padua Polls, 792 Strutton Road, Three Springs, WA. The sale will be interfaced by AuctionsPlus.

This year we have decided to increase to 150 the number of Rams on Auction. 26 more than last year in the Sale, but we won't have the traditional Helmsman Auction.

Rams are in very good condition, on the first week of August we still have 260 rams from which the Sale team will be selected.

After attending Bendigo Sheep and Wool exhibition, looking for new genetics, we gained confidence of our own breeding. We believe we have some of the most balanced Rams in the country between good conformation, top performance, and good data.

For this year in the Ram Sale catalogue, we will include the Rams CFW% (Clean Fleece Weight % Raw Data) which is the Rams performance in the last shearing compared to the 600 Rams measured. We will also include the weight at 11 months old which is considered yearling weight for ASBVs.

As always, Rams will be delivered to all WA buyers. We will also offer a Freight Rebate per Ram to Eastern State buyers as the cost of freight has a massive input on Ram price when transporting to Eastern States. We had a quote by Dick Smith Transport on route Muchea - Ceduna - Pt Augusta - Dubbo. For more information, please contact Fred 0427541707.

We understand this has been a tough year for the sheep industry, but we also believe and hope that soon the conditions will turn around as they always do. In years like this it's even more important to have the right genetics producing at high efficiency. Everyone will be welcome, as Anthony always says, "just come and have a look".