

LEAHCIM NEWSLETTER

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Free

Newsletter No.22



July 2024

White Suffolks & Poll Merinos Leahcim Wool - Farm to Yarn to You Hummocks Station Tourist Park

Welcome

It's been an interesting and somewhat challenging period for the sheep industry. High supply, government jurisdiction, areas of low rainfall all having an impact on commodity prices. We have seen the low point in the spring of 2023, the market has continued to improve since, and the outlook is positive.

These conditions have highlighted more than ever how important it is to make every breeding and management decision precisely and efficiently.

Quality and quantity are foremost in our breeding operations to ensure a positive experience to the end consumer and setting up our commercial clients to be in a situation to access to the best markets available.

Leahcim is now RWS accredited and this year being the 20th year since a lamb has been mulesed, it's great to be able to access the premium markets that are associated with this accreditation.

"Dual purpose Merino" wool and carcase... Those days are gone. Sheep need to be so much more. Parasite resistant, fertile, easy care to be able to be run ethically, are all hugely important factors in breeding a product that is not only profitable but desired.

In this newsletter we will discuss markets and breeding as well as reflecting on a bit of history.

The Michael Family



Leahcim's 2024 Calendar of Events

- ★ Australian Sheep & Wool Show at Bendigo – Friday 19th - Sunday 21st July
- ★ South East Stud Merino Field Day at Keith – Wednesday 24th July
- ★ LambEx at Adelaide – Wednesday 7th August - Friday 9th August
- ★ Classics Classic at Murray Bridge – Monday 2nd September
- ★ Leahcim Snowtown Poll Merino Sale – Tuesday 10th September
- ★ Leahcim Snowtown White Suffolk Sale - Friday 13th September

Overview

The landscape of the Australian sheep flock has been challenged over the last two years, going from extreme wet conditions to a predicted El-Nino in the eastern states, an extremely dry autumn in Southern Australia, shearer shortages, high livestock prices to extreme low prices, skin value collapse and many sheep producers questioning their breeding direction.

Australia has had its largest volume of sheep and lamb meat processed over a twelve-month period, this has put extreme pressures on processing plants and retailers to move red meat through the supply chain. That, along with the uncertainty of predicted weather events after so much of eastern Australia has strong memories of their recent drought, after which Australian farmers have rebuilt the ewe breeding flock substantially. Skin values have seen a major shift with some shedding and coarse woolled skin having a dumping charge of \$3 placed on them by the industry because of the lack of demand.

It is interesting that some studs and breeds advertise that their sheep require no shearing and are low maintenance animals. When neighbouring one of these breeders' properties a few years ago, we encountered threats to our biosecurity from unmanageable straying sheep, they still shored close to 70% of the ewes with no wool return and the same shearing expense as us, I'm NOT sure that's low maintenance. Leahcim sheep genetics produce high quality meat and wools which are carbon neutral with a very low environmental footprint and require minimal maintenance.

Where To From Here?

At Leahcim we are optimistic about the future of the wool and red meat industry in general. Strong market signals for high quality red meat, high quality merino-based skins, high quality wools that are backed up with traceability and sustainability. The message of high quality going forward is extremely important, not only with our products but also data and traceability from paddock to product. With Andrew spending six years on the MLA board, it's given our Leahcim family an even stronger drive to work with the whole sheep industry and our clients to develop a breeding direction that will achieve long term market certainty and trust with our customers.

There was an article on Sheep Central posted on September 27, 2017, which sheep producers should read, (Sheep Meat Council of Australia declares prime lambs should not be mulesed). It highlights the lack of industry awareness and action regarding future market access. An example of this is our current Federal Government and Industry bodies working through negotiations with the EU Free Trade Agreement stalling, it's important to understand the challenges going forward for Australia. The current situation with sheep meat quotas with the EU; Australia share 5,000 tonnes (worth \$35,000,000) New Zealand share 114,000 tonnes (worth \$798,000,000).

It would be naive of Australia to think that New Zealand wouldn't fight to keep its dominated share of this high value free trade agreement and using animal welfare standards for mulesing differences as a major point of negotiation. I would urge all readers of this newsletter to contact SPA, MLA or ISC and demand that pain relief management and mulesing status be added to the eNVD, to allow traceability from farm to our customer, especially into the EU. If we allow the Government to define our market accessibility, like how has happened in the recent case of the live export of sheep, and previously with the live cattle, uninformed and damaging decisions can be taken out of industry's hands. Our industry organisations need to be proactive, not reactive. 2024 marks twenty years since Leahcim ceased mulesing any lambs and that decision was made in the best interest of our livestock and creating trust and transparency for our customers.

Differentiating our products; wool, meat, and skins will become very important into the future with transparency of products playing an even higher priority with our customers. Leahcim Wool "Farm to Yarn to You" has already seen this highlighted at field days and markets where customers love the Leahcim story, which includes world leading traceability and trust of an incredibly sustainable and environmentally positive products.

Leahcim is moving as fast as possible to complete the total package of high quality meat, wool, and skins through our breeding flocks. We are extremely proud of our achievements over the last forty years plus, selecting for high quality wool, skins, and meat production. Leahcim has achieved industry leading genetics that are performing extremely well in varying climates through South America and the wettest and driest reaches of Australia. Selecting for meat traits that have NO negative impacts on our highly productive Poll Merinos and White Suffolks for high yielding, tender, balanced intermuscular fat that is high in omega3 has become another priority within our data capture at Leahcim. Genomics allows us to capture accurate information on the hard to measure eating quality traits. Leahcim's five-star data quality status gives our clients and customers great confidence when selecting for these traits.

Leahcim is one of the leading flocks in Australia, or the world that offers genetics from sheep with extensive phenotypic, 50k genomic, follicle density data linkages and individual worm egg counts, combined with full parentage information that is fully accessible through Sheep Genetics. The exciting outcome with this identification is that we have proven that you can breed sheep that have high quality meat, wool and skins that are unmulesed, highly productive, highly reproductive, easy care and tick ALL the boxes for long term sustainability.

Why is It Important To Add Eating Quality Data To Leahcim's Selection Information?

The cattle industry has identified and marketed different quality products through MSA and branded products, allowing price premiums to be achieved for both breed type and identification of product quality. Last year Andrew was fortunate to participate in a site visit to Kilcoy cattle processing plant in Queensland. They process 500,000 head of cattle a year with full traceability of individual animals; for carcase weight, carcase yield, intermuscular fat, PH, fat, muscle, health issues and carcase damage, which all add to the value of individual carcasses through MSA grading. These carcasses were graded from breeds such as Angus, Braman and Wagyu into branded product status, depending on MSA carcase assessments. The processing chain had AI (artificial intelligent) computer programming, individual carcase tracking, robot section cutting and MEQ (meat eating quality) probe all working to maximise the performance and traceability of beef product from these carcasses.

The sheep industry has the same opportunity with processors like TFI Stawell and Gundagai Meat Processors grading premium branded product using similar carcase grading as Kilcoy use in the cattle industry.

At this year's LambEx 2024 on the 7-9 August in Adelaide (Leahcim will have a display of genetics and woollen products), AMPC Feedlot Carcase Competition winners will be announced. The competition carcasses will be assessed under the MSA (Meat Standards Australia) cuts-base model, including assessments on eating quality criteria such as intermuscular fat and lean meat yield. Over 1500 lambs from 15 different breeds and 5 states were managed at Thornby Feedlot then individually identified, processed, and graded at TFI Stawell in Victoria to identify the highest valued lambs.

Leahcim had 374 ewe lambs, both Poll Merinos and White Suffolks processed with individual data captured for IMF (intermuscular fat) using the MEQ (meat eating quality) probe at TFI Stawell in May 2024. These lambs were selected from within our studs ewe lambs, these lambs had twelve years of full 50k genomics data history, weighed and fat scored prior to processing. The variation in IMF from 2% to 7% in both breeds was achieved which was expected within the group of animals selected. The average of the Australian sheep flock is 4% for IMF, with New Zealand average being 2% for IMF, above 4% is considered desirable by customers. Selecting genetics for Sf5 (shear force or tenderness) that measure below 3kg (or 29.42 newtons) is sought after to achieve superior tenderness.

Leahcim has identified and used Australia's leading Terminal and Maternal Genetics for red meat dressing percentage (dress, dressing %), tenderness (Sf5 shear

force at 5 days) and IMF (intermuscular fat) to maximise the highest value MSA graded red meat products from our Leahcim genetics.

Trial comparisons average within Australia for IMF and Sf5 are listed below:

	<u>IMF</u>	<u>SF5</u>
SA Merino Sire Evaluation 2021	4.1 %	41 Newtons
Dohne Meat Eating Quality Trial	4.0 %	55 Newtons

AWI & Merino Superior Sires 2022

These trials had approximately 154 and 205 progenies tested from 15 Studs.

Leahcim trial at Stawell for IMF and Sf5 genetic comparison from genomics below:

	<u>IMF</u>	<u>SF5</u>
Leahcim Poll Merino	4.35 %	30.63 Newtons
Leahcim White Suffolk	4.30 %	36.60 Newtons

Modern Merino Maternal Genetics With High Value Production For The Future

Leahcim's vision for the future of the sheep industry is a Poll Merino ewe flock with a percentage of the non-replacement flock mated to a terminal sire. The existing shedding breeds will play a role, but they will need outstanding meat production and quality traits, plus be prepared for a skin price penalty. The lambs we had processed in our Stawell trial had our Poll Merino skin values at \$10 more than our White Suffolk skins, some breeds incur a \$3 penalty which would see a \$15 plus per lamb difference from our Poll Merinos to some penalised skins at present. The structure of having a solid return from wool with every Poll Merino shorn, and top returns from the meat component of the Poll Merino, then the hybrid vigor effect of the terminal cross with the Poll Merino sold as sucker lambs, preferably at weaning is a very sustainable sheep breeding model.

When selecting for superior IMF to meet desired levels for consumers, select ASBV's above breed average (Poll Merinos -.29 and Terminals -.37) The lamb industry is different to the cattle industry in the level of IMF acceptable to consumers, Australian lamb is generally very good and needs to be 4% or greater, Sf5 needs to be as low as possible to achieve maximum tenderness.

Below are ASBV's of rams that will feature in displays this year. Also below are graphs of the sires that whose progeny will feature in this years selling season. The traits listed are essential in maximising high productivity and quality, wool and meat combining a strong focus on animal welfare and long term sustainability.

Tag	Sire	PWWT	YWT	YFAT	YEMD	YCFW	YFD	YFDCV	YSL	WR	EBWR	LDAG	EBCOV	YWEC	SM	LMY	SHRF5	IMF
232063	203061	9.8	13.5	1.0	1.8	24.1	-0.5	-1.8	12.8	0.11	-1.0	-0.3	-0.6	3.5	150	1.1	-1.5	-0.5
232231	203061	9.3	13.6	1.1	1.5	30.0	-0.3	-2.5	21.3	0.08	-0.9	-1.0	-0.4	-5.7	153	0.8	0.0	-0.7
232251	202278	7.4	9.8	0.2	1.3	24.3	-1.2	-1.8	13.1	0.03	-0.8	0.0	-0.2	-8.0	151	1.7	0.0	-0.5
232287	203061	9.3	12.9	0.4	0.7	21.5	-0.7	-2.3	9.6	0.23	-0.8	-0.6	-0.7	-0.4	152	0.8	1.2	-0.8
232333	203061	8.3	9.9	0.6	1.9	22.1	-0.3	-2.1	12.4	0.13	-0.8	-0.7	-0.3	-35.6	152	0.9	-1.9	-0.5
232340	192672	8.4	10.8	1.8	1.7	19.1	-0.5	-2.9	16.8	0.23	-1.1	-0.2	-0.3	-9.4	150	-1.1	-3.5	0.6
232579	182185	11.2	14.1	0.3	0.4	20.5	-1.8	-1.3	15.1	0.11	-0.6	-0.7	-0.3	-23.0	157	0.9	0.7	-0.8
232635	203185	8.4	10.8	0.1	2.1	25.3	-2.3	-2.0	12.0	0.13	-0.8	-0.6	-0.2	1.3	161	2.1	0.4	-0.8
232733	182185	10.5	12.6	0.1	0.4	28.3	-1.8	-1.4	11.9	0.13	-1.0	-0.3	-0.2	-40.2	166	2.1	2.8	-1.0
232999	213910	6.1	7.9	0.7	1.7	15.1	-2.3	-2.4	14.2	0.17	-0.7	-0.3	-0.6	-38.9	154	0.2	-2.1	0.2
233019	182295	7.0	9.2	0.3	1.4	31.4	-1.2	-2.6	21.2	0.09	-0.9	-0.5	-0.7	-4.7	153	1.3	1.0	-0.6
233079	203349	8.7	10.2	1.0	2.4	17.6	-0.5	-1.6	14.8	0.16	-1.1	-0.9	-0.4	-64.1	158	0.8	-3.1	-0.2
233110	203349	8.2	9.7	0.7	2.0	19.7	-1.2	-1.7	9.8	0.14	-0.7	-0.8	-0.4	-58.3	161	1.3	-0.2	-0.7
233139	203349	6.4	7.6	1.6	3.2	19.6	-0.3	-1.6	12.0	0.20	-0.9	-0.4	-0.3	-66.4	156	-0.2	-3.0	-0.6
233145	202651	10.3	12.0	0.7	2.0	29.2	-0.8	-1.1	20.7	0.06	-0.8	-1.2	-0.1	-6.1	164	1.9	0.7	-0.7
233209	213685	6.8	8.5	1.7	3.4	17.9	-1.0	-1.6	17.8	0.17	-0.8	-0.2	-0.2	-38.3	152	0.4	-1.9	-0.4
233356	203349	9.4	12.0	0.9	1.5	17.1	-1.1	-2.3	13.5	0.09	-1.3	-0.8	-0.5	-60.9	157	0.7	-2.4	-0.3
233461	202278	10.3	12.8	0.4	1.1	29.4	-1.3	-2.1	17.3	0.15	-1.0	-0.2	0.0	-26.2	169	1.1	-1.1	-0.5
233513	202278	9.7	12.6	0.4	1.3	29.7	-1.6	-1.9	12.9	0.10	-0.9	0.2	-0.2	-29.8	155	1.1	-1.8	-0.5
234459	213127	11.7	12.9	0.9	2.4	17.2	-1.8	-1.2	13.2	0.18	-1.5	-0.7	-0.7	-23.3	162	2.1	0.9	-0.7
234532	203061	11.4	14.3	1.3	2.3	22.7	-0.9	-2.1	15.1	0.17	-1.4	-0.9	-0.6	-25.9	162	0.9	-1.3	-0.3

Top 5% of industry

Top 10% of industry

Top 20% of industry

This table is a sample of what will be on display at Bendigo Sheep and wool Show, highlighting the balance of traits Leahcim Offers

Poll Merino Genetics:

Below is a table showing Poll Merino sires whose progeny will feature in this years selling season.

The sire 203061 highlighted in blue is having a very positive impact within our flock and those who have purchased semen. With the highest number of tops and lowest number of culls in both the ram and ewe progeny groups. His progeny have a balance of carcase, fertility, and fleece traits on a very uncomplicated, well-structured animal. Also sitting in the top 1% of the industry for DAG's. They are great all-round commercial sheep.

Tag	YWT	YFAT	YEMD	YCFW	YFD	YFDCV	YSL	EBWR	WR	EBCOV	SHRF5	LDAG	YFEC	SM
202273	8.4	0.9	2.0	21.8	-0.7	-1.1	14.0	-1.1	0.00	-0.3	-2.9	-0.6	28.3	140.1
202278	10.7	0.1	0.7	29.1	-2.1	-2.0	15.1	-0.7	0.06	0.1	-0.2	0.2	-23.7	159.7
202651	14.9	0.2	1.2	23.8	-0.3	-1.4	17.0	-0.9	0.13	-0.6	2.9	-0.5	-42.6	158.9
202881	12.8	0.3	1.0	16.2	-2.4	0.1	7.2	-0.6	0.10	0.3	1.1	0.1	-21.5	148.8
203002	8.8	0.9	1.7	19.8	-2.1	-0.9	10.4	-0.6	0.08	-0.4	-4.3	0.3	-7.2	144.5
203053	7.1	0.5	1.8	19.0	-2.6	-1.6	15.6	-0.7	0.07	-0.1	0.8	-0.3	-12.5	149.3
203061	15.9	0.8	2.5	21.4	-0.8	-1.7	11.6	-1.1	0.19	-0.7	-1.7	-0.9	-6.9	152.9
203185	6.0	0.8	2.8	22.1	-2.2	-1.3	9.9	-1.0	0.17	-0.3	-0.5	-0.3	13.9	152.6
203446	7.2	1.2	1.7	21.4	-0.7	-2.3	17.0	-1.1	0.12	-0.3	-1.6	-0.1	-30.6	149.0
213127	10.9	0.4	1.9	17.2	-1.5	-1.7	11.1	-0.8	0.06	-0.6	1.7	0.0	-26.1	143.3
213685	8.2	1.1	3.0	19.6	-1.8	-0.9	11.9	-0.8	0.15	-0.3	-0.3	-0.2	-9.6	149.5
213910	8.1	0.6	2.2	18.7	-1.5	-1.7	11.9	-0.6	0.10	-0.5	-1.1	-0.5	-48.4	149.4

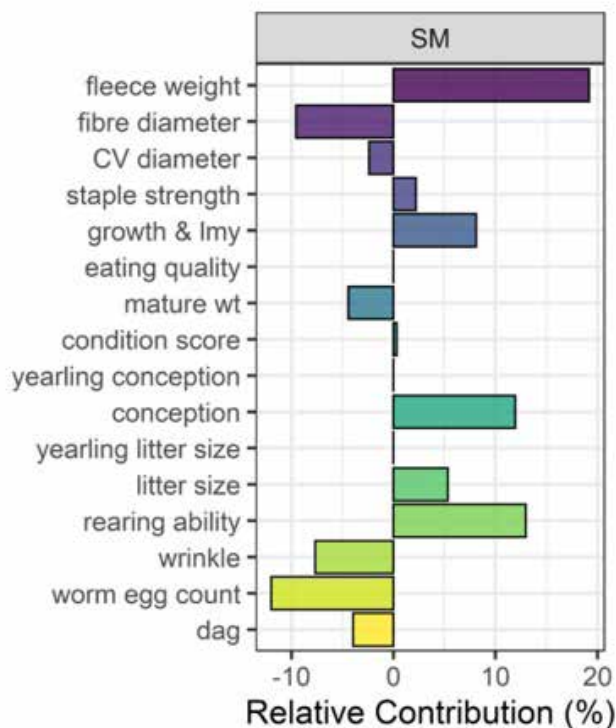
Highlighted in green is ram 203185, he has a very interesting data set. This ram identifies how difficult it is to bring all the production traits together that are antagonistic to one another. If you were to search the sheep genetics database for sires that have a minimum of 15 progeny and the following criteria, Above 2.0 for YEMD, Above 20 for YCFW, Below -0.7 for EBWR and Below -2.0 for YFD, this ram is the only one in the database to achieve such results. He is not the elusive perfect sheep, but it is very exciting to see these production traits line up on the desired skin. Some serious \$/Ha coming from those numbers. "Dual purpose" wool and carcase... Those days are gone. Sheep need to be so much more. Parasite resistant, fertile, easy care to able to be run ethically, are all hugely important factors in breeding a product that is not only profitable but desired.

It's easy to breed an animal with high fat and muscle, high fertility, with poor wool quality. Conversely its easy to breed an animal that's got those woolly hocks and will hang at the back of the mob with its wool blindness, have no lambs, but when you open the sparkling wool and see the wool cut, you too will be wool blind. Finding the middle ground is not easy, the word "balanced" is thrown around. But achieving maximum \$ per hectare from a sheep operation is the true indicator, not chasing market trends, but rolling averages. That is our goal.

SM Index

We have never been strong advocates for SheepGenetics Merino Index's. The reason for this being that previous index's had no weighting on traits such as Worm Egg Counts, Dags, and Breech Wrinkle, all traits that we consider important in our breeding objective.

SheepGenetics have updated the Index's and we will be displaying SM (Sustainable Merino), the graph below outlines what traits it encompasses and what emphasis is placed on them.



The SM index has replaced the SMHR (research index) that was trialled for 12 months. There are 3 other main index's.

ML - Merino Lamb

FW - Fine wool

WP - Wool Production

Sustainable Merino as Described by SheepGenetics:

"Targets a production system where the income derived is a balance of sheep meat and wool clip, a large focus on improving the quality and quantity of wool remains"

We still encourage a degree of caution when using this index. A search of the the top 1% of sires in the Database for SM Index reveal animals that sit in the bottom 20% of the industry for Fat, Muscle and Wrinkle. Hence, caution should always be taken when using Index's.

Leahcim Wool - "Farm To Yarn To You"

Over the last twelve months Leahcim Wool has processed more wool and expanded the product ranges, all of which is available to purchase at the Hummocks Station Trap Shed Store or on our online store.

The Leahcim Wool story has captured the imagination of a large age demographic which love that the product is grown on our Leahcim Poll Merino sheep that are managed with the highest animal welfare standards, is fully processed in Australia, has great product traceability, and the quality of the woollen products is outstanding. The story of our woollen products has seen products sent to many countries overseas and many areas within Australia.

Recently we have had inquiries from wool processing companies to expand our Leahcim Wool story on a large scale with a joint venture branded product. It was extremely humbling to think that companies have researched the wool producers in Australia and felt that Leahcim Genetics and the wool that it produces fits their ethical and quality marketing goals.

This year Leahcim Wool products have been displayed and sold at various markets, field days and later this year will be at the Australian Sheep and Wool Show in Bendigo, Keith SA Stud Merino Field Day, and LambEx in Adelaide. To keep up to date with all the latest Leahcim Wool news be sure to check out our website and social media pages.

White Suffolk Genetics

Over the last few years, we have cemented our place in the industry for being leaders in growth, muscle and Lean meat yield as well as dressing percentage. Feedback from existing clients and new clients have backed this up. One recently having changed to Leahcim White Suffolks in their terminal operation seen a 5kg increase in their lamb output and a 1.5% dressing percentage increase. We have always bred a lower set, higher muscled animal, that may not suit the show ring, but meets market suitability. "Kegs on legs" was the quote when describing Leahcim White Suffolk lambs. Moving forward we are continuing to put selection pressure on IntraMuscularFat, SHRF5 to ensure that our clients will be in a situation to meet high end markets when they become available.

Tag	WWT	PWWT	PFAT	PEMD	LMY	SHRF5	IMF	TCP
200035	10.9	17.0	0.2	3.6	4.2	1.2	-0.4	158
200563	12.0	17.9	-0.7	4.8	5.7	2.1	-1.1	173
210013	10.8	15.6	0.1	3.8	4.2	1.5	-0.7	157
220013	15.3	22.1	-1.4	2.4	5.3	1.8	-0.4	172
220030	13.1	20.7	0.2	2.6	3.6	-0.9	0.2	166
220031	11.9	17.8	-0.4	3.3	4.3	1.6	-0.6	158
220103	13.4	19.3	-0.9	2.8	4.3	-0.9	-0.1	169
220300	13.9	21.5	-0.6	3.3	5.2	1.4	-0.4	172

Table of sires that will feature in this years selling season

Rams that we will be displaying at Bendigo and Lambex

Tag	Sire	WWT	PWWT	PFAT	PEMD	LMY	SHRF5	IMF	TCP
230020	210473	11.4	17.3	0.3	5.0	5.0	1.7	-0.6	168
230138	200563	11.7	17.7	-0.5	3.5	4.3	0.9	-0.5	163
230415	200563	11.7	18.3	-0.6	4.3	5.7	2.1	-1.0	172
230477	200035	14.1	20.9	-0.1	3.7	5.4	2.4	-0.3	168
230594	200035	13.1	20.0	0.1	4.3	5.4	1.0	-0.4	172
230629	200035	13.3	21.1	-0.4	3.1	5.2	0.9	-0.2	169

Evolution within Leahcim

Leahcim Poll Merino Stud was founded in 1983 and our Leahcim White Suffolk Stud was founded in 1986 with ewes from our Suffolk stud. Since then Leahcim has become one of Australia's leading seed stock flocks for adopting and developing technology. In 1989 Leahcim White Suffolk stud was one of the first flocks in Australia to measure lambs' growth and fat, then enter the data into Lambplan (Lambplan founded in 1989).

The terminal index used in 1989 was Lean Growth Index, with our top sire's EBV (now ASBV's) for Weight at 200 days PWWT +1.7 and PFAT -0.6 with no eye muscle recorded, with the report sent to us in a very basic folder. Today our top sire has a PWWT (200-day Weight) of +21.4, PFAT -0.59 and PEMD +3.53 with all Leahcim data online, full access to everyone, with millions of linkages to other sheep genetics.

In 1991 Dr. Jim Watts and Leahcim began our journey of changing the perception of the traditional Merino, Jim was a research scientist with the CSIRO in the field of skin biology. The year Jim started working with us our ewes average micron was 24.7-micron, cutting 6kg of wool in 12 months on a big framed sheep with minimal fat and muscle. Jim and his research partner had developed wool identification markers to help visual selection (which still are valid today), these markers for wool and skins expressing well aligned, bold deep horse shoe crimp, soft white lustrous wool, loose skin, no pin wrinkle, and pencil size locks which produced highly productive low micron wools, these sheep were totally different to the traditional merino. At our first classing Jim used all those wool identification markers to select the ewes to use as future breeder and the culls to sell, no individual micron or fleece weights were available at that classing. The mixed age ewes he selected to retain in the stud averaged 21.7 micron (soft, bold, deep crimped that visually looked stronger) and the culls (visually finer crimps that weren't as soft) were 25 micron when the two different lines of wool were tested. Today's Poll Merino mixed age ewes average 18.2 micron cutting 10% higher greasy fleece weight over a twelve-month period.

1993 we introduced meat and wool measurements to the Poll Merino's with ASBV's which was then developed into the Merino Select data base. Our oldest proven sire in Merino Select is Leahcim 930292 with 339 progeny in 11 flocks. Leahcim showed that ram at the Royal Adelaide Show in 1994 (the only time we showed Merinos in the traditional show ring), it was a big reality check. There were 8 rams in the class, and we thought the ram looked good compared to the others (a bit pencilly in the lock and too plain were some of the comments) and we thought we were at the top of

the lineup until the Judge put the ribbons on from the opposite end. 930292 was entered into a sire evaluation trial at Turretfield, where his progeny performed very well which gave us hope after our disappointment at the Adelaide Show. 930292 is a great benchmark to see the progress that has been achieved by using the science that Jim Watts and the CSIRO developed, and the industry genetic breeding values used from 1993 through to today.

<u>ASBV's</u>	<u>PWT</u>	<u>PEMD</u>	<u>PFAT</u>	<u>IMF</u>	<u>SF5</u>	<u>YCFW</u>	<u>YFD</u>	<u>YSL</u>	<u>EBWR</u>
930292	3.27	-1.99	-1.73	-1.54	9.66	21.73	-0.57	5.73	-0.42

The ASBV's for 930292 have approximately 95% accuracies on this data and would mirror our sheep in 1993. Interestingly the data from 930292 back then is superior to a high priced traditional ram sold recently. Note the difference in PWT, PEMD, PFAT, IMF and SF5.

Some proven sires in 2024:

	<u>PWT</u>	<u>PEMD</u>	<u>PFAT</u>	<u>IMF</u>	<u>SF5</u>	<u>YCFW</u>	<u>YFD</u>	<u>YSL</u>	<u>EBWR</u>
203061	11.56	2.23	1.13	-0.72	-2.03	19.14	-0.77	10.40	-1.12
203002	5.11	1.56	0.89	0.51	-5.6	18.38	-2.03	9.40	-0.85

In 2001 Leahcim started testing our top potential sires for follicle density, SP ratios, and skin thickness to help identify genetics that will produce high skin and wool values.

The rams tested in 2004:

<u>Follicle Density (per sq mm)</u>	<u>S/P Ratio</u>	<u>Skin Thickness (mm)</u>
37.2 to 85.7	17 to 36.9	0.67 to 1.21

Leahcim developed a system in 2016 that allowed us to measure large number of sheep for their wool follicle density which has reenforced our early learning from the CSIRO and allowed us to make informed genetic selection to improve wool quality and production.

One of our top proven sires in 2023:

	<u>Follicle Density</u>	<u>YCFW</u>	<u>YFD</u>
182185	125 fibres per sq mm	19.96 (98% acc)	-2.32 (99% acc)

2004 - Leahcim made the decision to cease mulesing. Research showed that lambs that were mulesed lost up to 5kg body weight in the first 15 weeks, plus much of the world saw the practice as barbaric, that was enough for us to cease the practice. Regretfully Australia is the last country in the world that still allows the practice of mulesing on our lambs which has a massive impact on our market access and trust.

2007 - Leahcim undertook a jivet breeding programmes and again in 2015 which achieved some outstanding genetic gains from the progeny of the program. The program in 2015 had the advantage of having genomics on the 6 week old ewe lambs which gave us (the scientist said) an 18-fold genetic gain. This program and research proved in a very short time frame that modern science combined with technology and good animal welfare awareness in the sheep industry had great merit.

2012 - Leahcim introduced 50k genomics testing on our total Poll Merino and White Suffolk seed stock flocks which was a game changer for sheep breeding. Leahcim has invested over 1.3 million dollars in this technology with great rewards and accuracy increases on pedigree and ASBV linkages, especially with the hard to measure traits like IMF and shear force or tenderness which can only be measured on a processed animal.

2016 - Leahcim purchased Hummocks Station to develop a tourism business to improve the perception of Snowtown and our region.

December 2019 - Rosemany sent her first bale of Leahcim wool to Victoria to be processed into craft yarn. Today we have a wool store at Hummocks Station with a large range of woollen product including tops, craft yarn, woven product, and Silver Fleece knitted products. Every fibre is fully traceable back to the animal, with the woollen products fully processed in Australia.

2024 - Leahcim has undertaken an eating quality trial to evaluate one of the last links in the chain of our breeding program that will offer the complete package of breeding values with high accuracies and transparency to maximise productivity into the future of the sheep industry.

2023 Sales

Leahcim Poll Merino

Sale Summary

	2023	2022	Thank you to all clients for purchasing Leahcim Genetics
Offered	300	300	
Sold	300	300	
Top	\$8,000 x3	\$24,000	
Average	\$2,619	\$3,402	



Pictured is one of the \$8,000 top priced rams purchased by Penrose Poll Merinos with Tom Allen & Gordon Wood (Nutrien), Alistair Michael (Leahcim) & Trudy & Bruce Pengilly.

Leahcim White Suffolk

Sale Summary

	2023	2022	Thank you to all clients for purchasing Leahcim Genetics
Offered	134	121	
Sold	134	121	
Top	\$10,000	\$21,000	
Average	\$1,161	\$1,630	

Increased Exposure of Leahcim Products and Partnerships

Leahcim and Hummocks Station have evolved over the last few years into a partnership that offers tourism on one of Australia's pioneer sheep stations. This is also home to Leahcim Wool - "Farm to Yarn to You", offering products that are processed from our Poll Merino sheep. Leahcim products now include tourism, wool sales, processed woollen products, Poll Merino and White Suffolk genetics and grain sales that are all interlinked, and sold worldwide.

In May this year we registered with the Australian Tourism Data Warehouse to broaden our exposure throughout Australia. Tourism Australia is undertaking a major promotion of Hummocks Station Tourism Park, combining agri-tourism with Leahcim Genetics and woollen products over the next few months.

Hummocks Station Developments

Since the restoration and opening of the Trap Shed Store and Stables in May 2023 we have been finalising the Hummocks Station walking trail that connects Hummocks Station with a walking and bicycle trail to Wallaroo. The trail runs adjacent to the railway line which was opened in 1879 to service the local farmers and businesses as the area was developed. Thomas Elder sent his first load of wool to England on the railway line from Hummocks Station when it was completed.

The Trap Shed is now the home for our Leahcim woollen products and some other local and rural products. The store is open on Friday, Saturday or when the tourism park has high occupancy. The store offers great coffee, snacks, drinks and of course Golden North ice creams.



Leahcim

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