



# CLOVEN HILLS

450 Haydens Rd, Nareen VIC 3315

**Purpose bred for greater lamb production**

*“Flexible, profitable, sustainable”*



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## INTRODUCTION

We are very excited about our new Shedding and finer Micron wool lines. The prime lamb industry is at a crossroads from the perspective of wool. The options are to i) maintain the status quo and treat wool as an animal health cost and examine ways to harvest it more cost-effectively and hope for price recovery in the broader end of the grid; ii) lose the wool all together; or iii) improve the quality of the wool to make it at least a cost-neutral component of the business. Each option has its pros and cons with the weighting of each consideration changing on a case-by-case basis. In response, our goal is to provide clients with a choice of high-performance genetics to fit with the direction they decide to take with wool. Regardless, we will not compromise on the key profit drivers for prime lamb, namely, fertility, growth and lean meat yield.

We will also report on the results of the Meat Eating Quality trial we have invested in to look at the influence of our sires on lean meat yield, intramuscular fat and carcass fat. Tom Granleese delivers his annual report card on our genetic gain and provides more detail about our different breeding programs.

The last 12 months has reinforced the importance of:

1. Resilience – people, animals and farming systems – to face up to, and respond to challenges
2. Planning and having a simple system to enable doing the basics well and pivoting when conditions change.

## NEWSLETTER | AUGUST ‘24



*The Cloven Hills family (L-R) Harry, Bridie, Chris, Kate and Rupert Dorahy*

3. Putting aside the things that are going to give minimal gain,
4. Minimizing cost
5. Streamlining operations to reduce labour

We will talk about what has worked and what will make our businesses better in the future.

We hope you enjoy our Sheepvention 2024 Newsletter and hope you call in to give us your thoughts on the 3 lines we will be presenting.

Chris and Kate Dorahy.



**RAM SALE ▶ TUES 1 OCT 2024 @ 10:30AM**  
**OPEN DAY, THURS 19 SEPT ▶ BOTH AT CLOVEN HILLS, 450 HAYDENS ROAD, NAREEN**

## INTRODUCING CLOVEN HILLS NEW WOOL LINE

This year we are excited to offer a small selection of rams from our new Wool Line. We are planning to have 20+ rams available at our sale. They have an average micron of 25 as a ram lamb, and an average YFD of -1.8. There are some that will have some merino in their grandparent pedigree (this will be marked in catalogue), but the majority are composite. Currently this group of rams averages about 170 on MCP+, this is top 15%! There are some very good but a range of ASBVs within this group, so like everything it will be deciding on the tradeoffs for your business. Undoubtedly, as we have seen the cost of shearing rise it is being considered by more. However it's also calculating the opportunity cost a lower growth or fertility rate may or may not have. Again it's not one size fits all, it depends on your farm and ewe flock.

Our star performing wool sire who's progeny are hitting the ground as we speak will hopefully come to Sheepvention with us. He was out of a ewe lamb, he was born a triplet and raised a twin, doesn't have Merino in his pedigree, does have 170188 as a grandsire. His micron was 25 as a ram lamb, and his YFD is -0.9, MCP+ 187 (top 1%) , WWT 10.4 (top 10%), WR 0.31 (top 20%), YWR 0.59 (top 20%), PEMD 2.8 (top 5%), PFAT 0.8 (top 10%), IMF -0.4, PWEC -60 (top 20%). Come and have a look at him at Sheepvention and tell us what you think of his wool.



See table page for ASBVs, MCP+ and micron

## INTRODUCING CLOVEN HILLS NEW SHEDDING LINE

While improving wool is one option, removing it is another, as every business makes choices about their production system. There is no doubt reducing costs and saving time through eliminating wool harvesting and handling is attractive. This year we are excited to have some Cloven Hills Shedder F1s at our sale. These are the result of selecting Shedding Sires with high shedding scores and crossing them with Cloven Hills dams with high MCP+ figures and bare bellies, breeches and low wool. Their progeny have not been shorn and are exhibiting strong shedding traits coupled with high performance. They would be well suited to go across existing shedding ewes with breeding objectives of improving fertility, growth and carcass traits.

The performance of shedding sheep is about 12 years behind top composite sheep but we are confident we will be able to reduce the genetic gap to provide industry with a high performing shedding version of Cloven Hills bloodlines.

Trait	MCP+	BWT	WWT	PWT	AWT	PFAT	PEMD	PWEC	PSC	WR	YWR
F1 average	139	0.4	8.2	11.9	13.1	-0.6	1.0	-30	3.4	0.11	0.22
Top F1 Ram	159	0.1	6.2	10.2	7.1	-0.7	2.7	-62.8	4.2	0.12	0.29



## YEARLING F1 SHEDDERS NEVER BEEN SHORN IN THEIR WINTER COATS



See table page for ASBVs, MCP+ and shedding scores

## EATING QUALITY TRIAL 2024

### TRIAL OVERVIEW

18 months ago Cloven Hills purposely designed an eating quality progeny test trial incorporated into their nucleus breeding program aimed at identifying new lines of eating quality genetics. In April 2024 the team followed through on keeping specific animals in continuous management groups readying these lambs for carcass measurements at Gundagai Abattoir. This came at great expense to Cloven Hills in very tight financial market knowing many lambs would not meet grid specs in the name of full cohort measurement.

Lambs were finished in a feedlot for three months. Details of the cohort can be found in Table 1. Each sire aimed to have at least 10 progeny slaughtered. Lambs from both woolled and shedding lines were slaughtered in the trial.

**Table 1:** Exit and carcass statistics for cohort of 403 slaughtered lambs.

	Exit BCS (1-5)	Exit Wt (kg)	Carcass Wt (kg)	CFAT Depth (mm)	LMY %	IMF %	\$/kg CWT
Minimum	2.8	38.2	20.8	12.0	49.3	2.0	\$2.50
Maximum	5.0	89.6	44.5	23.0	63.6	7.0	\$6.00
Average	4.4	62.3	31.4	18.6	54.5	4.0	\$4.47

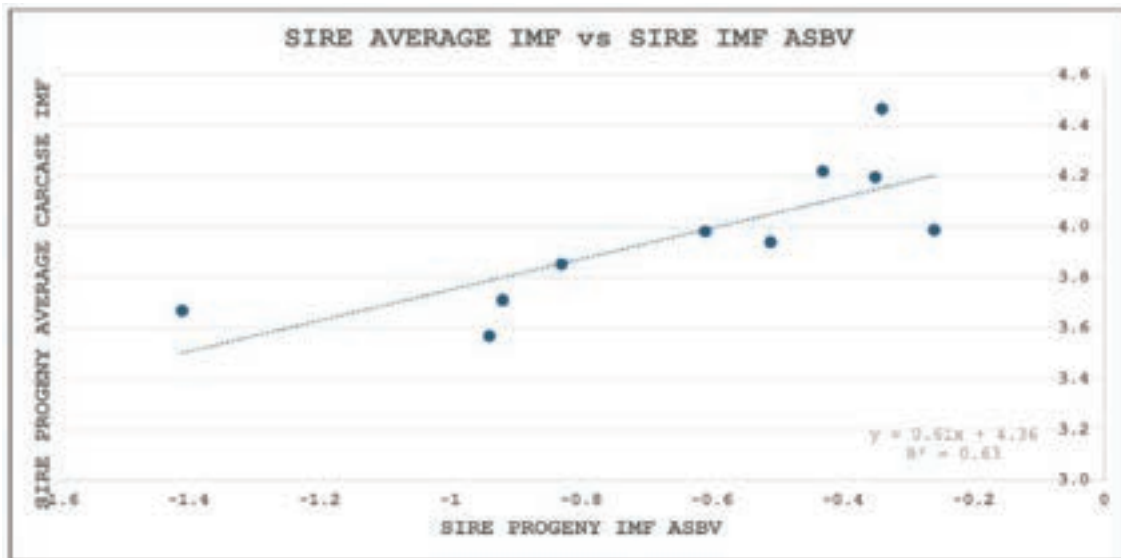
The first takeaway was the lambs were too fat or finished at the point of slaughter. However, it was very hard at that point in time with South Australia and Victoria in chronic drought resulting in hard-to-get kill room bookings. In short, the lambs were slaughtered one month too old and/or finished. The Cloven Hills team knew they would receive a financial hit by missing the grid, but such is their commitment to genetic evaluation and genetic improvement, they were willing to see the trial through. Table 1 demonstrates variation present in the dataset which is key to genetic evaluation.

### SIRE HIGHLIGHTS

Cloven Hills have been developing a special “MEQ” line for several years now and an exciting sire CM0009-2022-223955 was found to have an average IMF 1.2% higher than cohort average. This sire has high IMF genetics on both sides of the pedigree and will be reintegrated into the MEQ breeding program. Further, there were [three](#) other sires whose progeny were 0.5% higher than cohort average. One of these rams was specifically bred from an IMF dam while the other two rams were found from general breeding.

We regressed sire ASBV to progeny average IMF from this dataset and observed a 0.63 correlation. This is a demonstration that Cloven Hills commitment to donating sires to the MLA Reference Population is allowing good prediction accuracy for younger selection candidates.

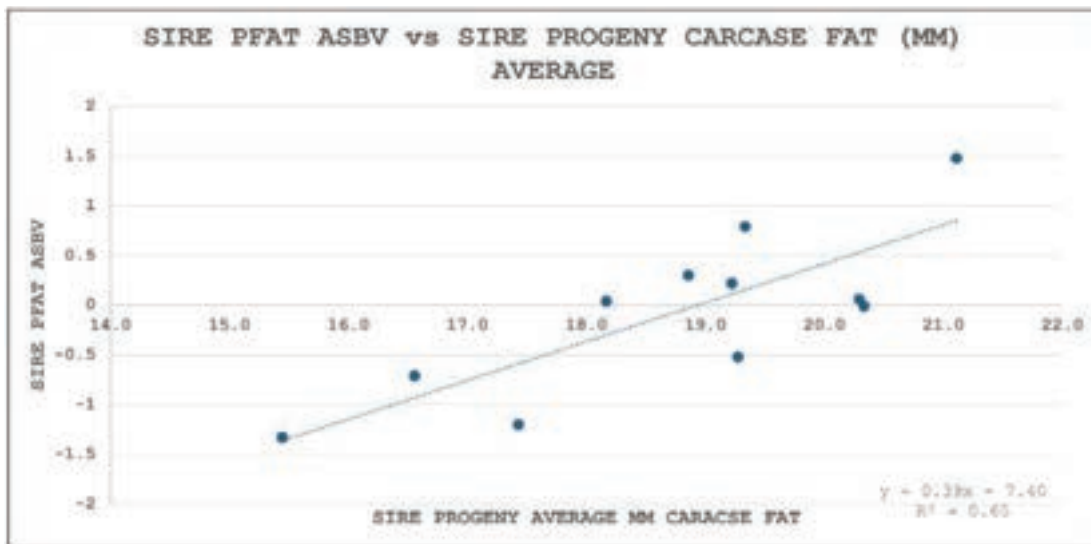
**SIRE HIGHLIGHTS CONT.**



*Figure 1: Sire average IMF vs Sire IMF ASBV.*

**THE INTERESTING RELATIONSHIP BETWEEN PFAT AND CARCASE PRICE**

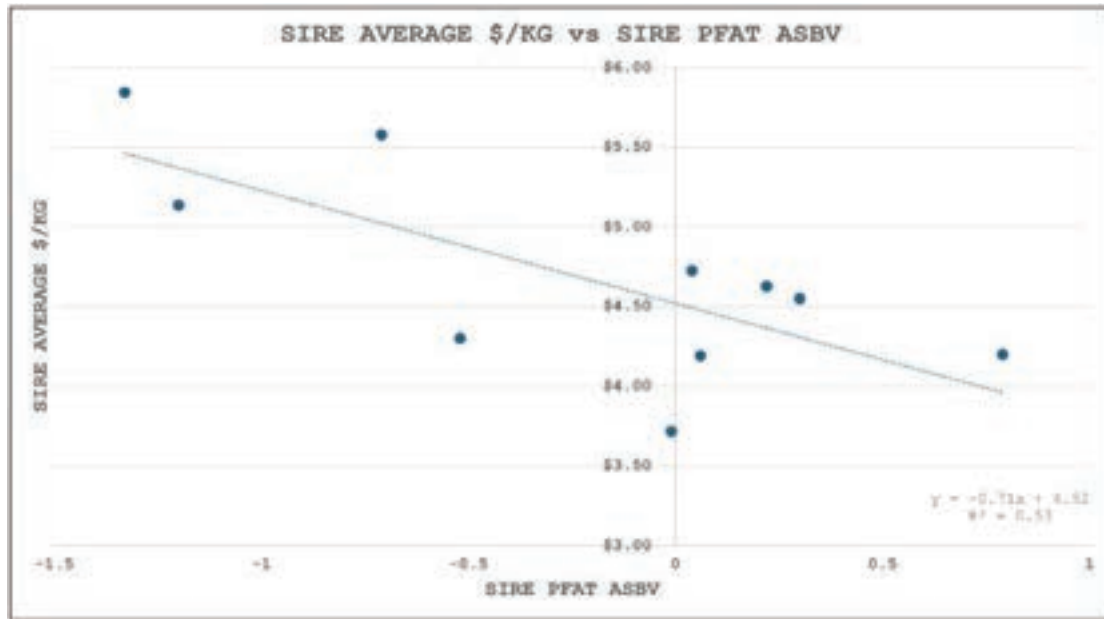
Given the lambs had a month too long in the feedlot, it gave the lambs a chance to fully exhibit their genetic potential for carcase fat. We regressed sire PFAT on carcase fat depth and observed an 81% correlation between the two. This validates the theory of letting the lambs fully express their fat potential.



*Figure 2: Sire average carcase fat vs Sire PFAT ASBV*

Lean meat yield accounted for 88% of the optimum Gundagai grid on this particular consignment, with IMF accounting for the other 11% if IMF was over their “GLQ5” grading. As \$/kg increases, the percentage of IMF premium would decrease. As carcase fat increases, the total lean meat yield decreases. Knowing we observed a medium to strong correlation on this dataset between sire PFAT and progeny average carcase fat, it led us to investigate the relationship between sire PFAT and progeny average \$/kg. Figure 3 (next page) demonstrates a moderate to strong negative correlation in this dataset.

## THE INTERESTING RELATIONSHIP BETWEEN PFAT AND CARCASS PRICE CONT.



**Figure 3:** Sire average \$/kg CWT vs Sire IMF ASBV

This dataset suggests to Cloven Hills management that care needs to be taken with high PFAT sires when finishing lambs to be killed to a grid. It can also be concluded from this dataset that genetically leaner lambs on a long-fed finishing program result in better grid prices. Further to this, hitting the lean meat grid is financially far more profitable than meeting higher IMF thresholds.

### FINISHING UP

Some key takeaways for the Cloven Hills team:

1. Genomic IMF predictions are working well
2. In this trial, genetically fatter animals missed grid specs more than genetically leaner animals
3. Missing the lean meat yield grid resulted in up to 400% price discount vs the potential gains to gain from hitting IMF specs (i.e. \$3.30 discount vs \$0.80 premium)
4. Selection for genetic fat (PFAT) needs care particularly when finishing lambs for grid pricing

## WHAT'S WORKED WELL IN A TOUGH YEAR?

### Making a commitment to feeding and taking a planned approach to marketing

Back in September at our Open Day, the key concern facing everyone in the room was the poor outlook for meat prices as lambs hit the market in late-spring / early summer. The price for finished lambs was around \$4.50/kg, with store prices in freefall and mutton around \$15-20/hd. A daunting prospect for many, and so we were fortunate to have Steve Chapman (JBS), Mark Webb (Webb & Woodiwiss) & Lach McKenzie (McKenzie Ag) talk at our Open Day discuss these issues. In hindsight, the value of this day was even greater than we realized at the time.

Steve gave us an excellent overview of global and domestic factors at play on lamb supply and demand. Ultimately Steve's talk gave many of us the first bit of confidence we needed to hold and feed lambs to keep stock in forward condition with the option of finishing them to enable a staged approach to marketing and supplying quality lambs. Now we can see demand for lamb increasing as exports increase and domestic consumers have their taste for lamb back, let's hope we continue to see this reflected in prices to producers.

Mark discussed planning, preparing and organizing different lambs for different markets. This is something many of his clients in Tasmania have considerable expertise and experience in. Planning, and having the infrastructure and labour in place to feed and supply lambs to a grid doesn't happen by accident, and takes time to build both the infrastructure and experience.

Lach talked about the grains markets and the different feeding options available, for lambs and ewes - boy we needed these! McKenzie Ag Lamb Finisher Mix has been extremely popular locally and Maize has been a revelation to many, firstly during containment feeding and secondly as a viable option for feeding ewes during lambing. Locally, many of us have kept super spreaders busy spreading maize in lambing paddocks to avoid mis-mothering. Walking back in the paddock after 14 days, ewes had hoovered much of it up, but the maize grains you could find were still hard, after frosts and at least 20mm of rain.



Mareeta Cox and Kate Dorahy



Kate Dorahy, Steve Chapman, Mark Webb, Loch McKenzie and Chris Dorahy

## Early weaning

Last year, we weaned early, with lambs at 6-10 weeks of age, onto our best quality pastures with access to feeders and McKenzie Ag Lamb mix. This was around late September and we knew if we didn't do it then, we would be caught up with ram selling and may not get back to it for several weeks. This did come with some risks, including wondering if it was too early, and sacrificing our silage paddocks and most importantly, taking on the responsibility for feeding and managing lots of lambs. This last point is something we cannot stress enough. Weaning works well for us and the capacity for even small lambs (17 kg) to thrive is amazing, but it needs to be planned and managed, as we are taking over from the ewe in providing the lamb with its energy and protein requirements. Early weaning (before end of September) buys time to organize the program whilst feed quality is generally good, but from mid-October onwards it is generally declining. Unless their FOO is spectacular (ie. Majority fresh clover), lambs will be going backwards without supplementary feeding, via self-feeders and or high quality hay like vetch. Fortunately, we had good silage reserves from the big Spring of 2022 and experience and infrastructure for managing weaners. Lambs were then drafted into containment for finishing with McKenzie Lamb Mix or backgrounded on summer crops with access to feeders with barley and lupins. Keeper breeder ewe lambs and ram lambs were trail fed lupins and barley.

This enabled us to sell some ewe lambs as breeders in December and in the absence of a market for store lambs we finished the balance. We have supplied primarily domestic kill lambs from January to May, peaking in March. 63% of these fell in the 24.01 -28kg grid and 31% in the 20-24kg grid. Alongside this there are always the top end of lambs where their growth rates exceed the rest and end up on the heavy export truck, usually killing at 30kg. In a year where \$/kg was low, having the extra kilograms has made a difference, but this does come at a cost, so each business needs to evaluate the pros and cons from their own situation.



Balansa clover at Rangeview Spring 2022 - let's hope we get some this year!

### Dependable genetics are critical in tough years

While running a stud program has been very challenging through the dry, our confidence in what can be done to improve sheep is strong and this season has certainly demonstrated how efficient they are in performing under tough seasonal conditions and maintaining production.

1. **Genetics that you know will consistently perform** – take some of the stress out of the current landscape. Yes, they have to be fed, but if you are spending the money on feed you want to know they will perform and convert feed efficiently to kg meat/ha. Cloven Hills weaning rate has doubled and remained 13% above breed average. However the biggest gain we have seen that makes a big difference in a year like this is yearling weaning rate doubling (from .25 to .50), and notably the cost of getting ewe lambs in lamb has reduced considerably. Single sire ewe lambs joined up at 154% and commercial ewe lambs at 142%. As we were short on pens all weights went in. Ewe lambs were on summer crop until early Feb and have been on a maintenance trail until joining, there was no time for mollycoddling them.
2. **Selecting for Resilience** – in the last 10 years we have reduced our flock average worm egg count by 85%. This is a reduction 2.5 times the breed average. Less time drenching. Less cost buying drench.
3. **Moderate ewe size** - many of us have regularly been doing the calculations using ME charts, and each 5kg heavier of body weight chews up more feed and adds to the bill. Bigger sheep eat more. When you are feeding for months on end, it doesn't matter whether you have a big or small flock, the additional dollars to feed bigger sheep are in the thousands. In the past 10 years we have continued to increase both weaning and post weaning growth by 30%, but kept AWT stable.
4. **Selecting for low maintenance** – through strong selection pressure over the last 5 years, we have increased the percentage of black footed animals in our sale catalogue by 20%. In our current preselected sale rams, 71% have a score 4 (mainly black with white stripes) or 5 (black) and 80% are 3 to 5 score. Animals that hold their condition score is another selection criteria that we have focused on, particularly in our second year lambing ewes when they lamb in August / September as ewe lambs and back up again as a 1.5 year old. They do not get run by condition score and have to back up and perform. Likewise, ewes who have done it tough this autumn and winter will need to get back in condition as seasonal conditions hopefully improve, so that conception rates in 2025 are not compromised.

### Perennial Pastures and containment feeding

The late Peter Schroder spent his career promoting Phalaris and sub-clover as the bed-rock for pastoral systems in the Western District. This year highlights the benefits of perennial pastures in building a feed base for our lambing ewes. Despite having only 93 mm of rain from Jan-June in our area, the paddocks with improved perennial pastures provided at least 900-1200 kg DM/ha for the ewes as they were paddocked out for lambing in early July. Coupled with containment feeding, lower than average stocking rates, use of gibberellic acid and nitrogen top-dressing, enabled these paddocks to provide a small feed wedge in spite of limited soil moisture. In contrast the paddocks dominated by annuals or where ryegrass blends were sown in the autumn provided much less FOO. So, this year highlights the need to remember Peter and his work and put perennials back on the agenda for those paddocks which have not performed this year.



*The late Peter Schroder was a legendary advocate for perennial pastures based on phalaris and sub-clover in the Western District*

### Shearmaster system

Labour and shearing is a big issue for prime lamb producers. At our ex-blue gum property, Rangeview we have installed a Shearmaster lane feed shearing system by Perkinz. We looked at all of the options and couldn't justify our partners investing in a conventional shearing shed. In three weeks, we were able to temporarily install the system to an operational level for its inaugural shearing and it exceeded our expectations. We were able to shear 4000 sheep including mature rams in 2.5 days. The shearers were happy, doing extra 5-10 a run and several exceeded 300 for the day. They reported being able to achieve these tallies without being exhausted at the end of the day. It was less stressful on stock and even the cocky was much more relaxed.

Wayne Perkins, from Perkinz gave us great support and Brett Major from BMC was fantastic at assembling it so quickly. We have now installed the unit permanently at Rangeview, with the ability to convert the unit from shearing to crutching mode as required. The added bonus is that the unit and wool floor has a low footprint within the shed, enabling other areas to be used for other purposes.



## GENETIC GAIN IS KEY TO IMPROVING YOUR ON-FARM PRODUCTION

### Dr Tom Granleese

Selecting the specific traits that will target your production objectives is important as your farm's genetic gain will mirror where you purchase your genetics. Genetic gain is therefore pivotal to increasing on farm profitability particularly as we have cost rising in the current inflationary environment. Cloven Hills long term gain of 3.9 MCP+ index points is 48% higher than the average database gain. In actual fact it will be higher given Cloven Hills data is included in the database average with Cloven Hills contributing 7% of the LAMBPLAN maternal database (Source: Sheep Genetics July 2024).

Cloven Hills genetic gains as represented by the MCP+ index is highlighted by the orange line in Figure 1. Over the past 10 years Cloven Hills have averaged 3.9 MCP+ points genetic gain/yr. The 10-year Composite industry average is 2.6 MCP+ points gain/yr (Source: Sheep Genetics July 2024). Effectively, Cloven Hills have been improving 50% faster than the rate of industry over the past decade. Cloven Hills long-term rapid rate of genetic improvement means they have entire drops of industry leading genetics meaning all clients have access to elite rams.

### Why genetic gain from your stud is important to you

When a stud you are sourcing genetics from is achieving high rates of genetic gain, it is important for you as a client:

- Your own genetic gain in key production traits follows your sourcing stud (Figure 1). This is important to increase your on-farm profitability
- There are more rams to choose from that will increase the genetic merit of your on-farm ram battery
- More rams to choose from means you have more chances at buying rams on sale day or privately in the paddock that will progress your breeding objective



Why genetic gain from your stud is important to you cont.

Cloven Hills vs Industry Average

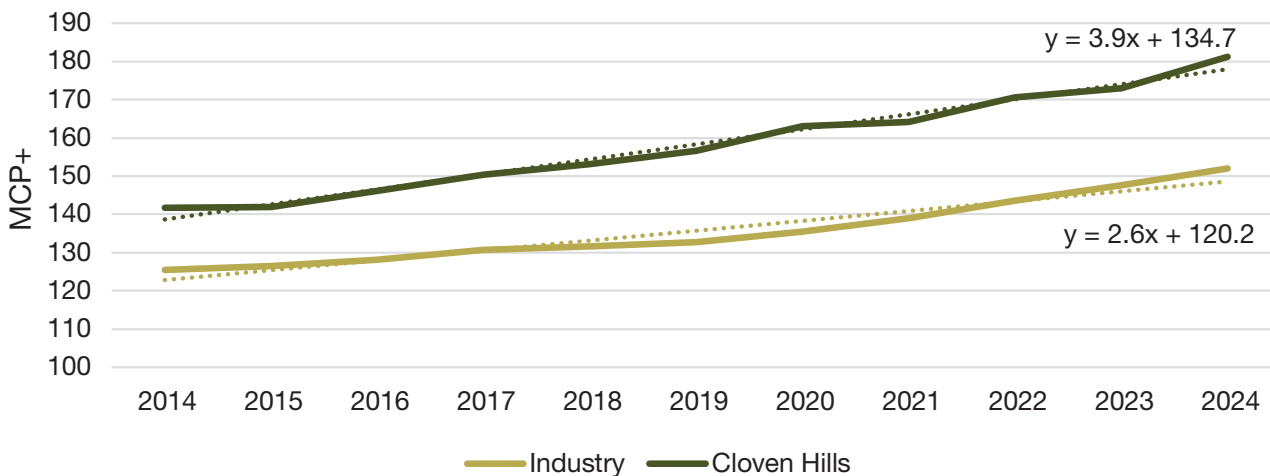


Figure 1: Cloven Hills and database average MCP+ benchmark over past 10 years from July 2024 Sheep Genetics database run. Note the 2024 benchmark for Cloven Hills is based on parent average matings.

WHAT ELSE IS CLOVEN HILLS FOCUSING ON?

The Cloven Hills breeding program are committed to continuing to offer high genetic merit rams for their clients for key profit driving production, health and reproduction traits. Other areas of focus are:

1. Developing eating quality lines of sheep. Cloven Hills have invested heavily into sourcing new genetics to improve eating quality. In 2024, Cloven Hills undertook progeny test eating quality programs where some high IMF sires were identified. All sires are genotyped which will facilitate better identification of future selection candidates who are genotyped to speed up IMF selection. Please see the Eating Quality trial section for more information. This year there will be up to 10 rams for sale with IMF over zero ASBV.
2. Shedding sheep. Cloven Hills acknowledge the shortage of shearers and the increased cost of shearing. The 2024 will be the second generation of Cloven Hills shedding breeding program. Cloven Hills expects to offer high genetic merit, fully shedding maternal composites in 2025.
3. All woolled composites have now been micron tested for 3 drops are wool tested in the aim of decreasing micron so maternal composite sheep can will be “shearing cost neutral” or better. Measurements are submitted to Sheep Genetics and returned as ASBVs. You will find raw micron scores in the catalogue. This year there will be up to 40 rams who are 22-26 micron while still high indexing rams. We are confident the YFD ASBV is now a good reflection of the animals with 3 years of data now moving through the analysis.
4. Commitment to research for betterment of the entire industry. Cloven Hills have been part of Satellite Resource Flocks partnering with MLA with the Eating Quality projects in 2019 and 2021. They have also been part of Satellite Resource Flocks partnering with MLA with the maternal productivity projects in 2018, 2019, 2021, 2022 and 2023. Cloven Hills will also be participating in the “Low Methane Sheep” project where 500 2024 drop animals will be measured in portable accumulation chambers for methane production. This data will help form the dataset of industry’s new methane breeding value.
5. Milking more key rams to be available to Cloven Hills clients.



## WRAP UP

Despite the challenges of the last 18 months our glass is still half full. The outlook for sheep and lamb is still good with current market conditions affected by long COVID and looking to stabilize and improve. The challenge will be to manage the cost of producing a 20-28 kg carcass consistently but within variable climate. The weather outlook is either La Nina, El Nino or I don't know, but we really do need some good rainfall for Spring feed and runoff for water storages which are depleted. Our systems need simplicity and resilience to cope with whatever the seasons and markets throw at us.

Our Stud aims to breed better sheep for our clients and this is reinforced by our stud program this year which had 91 different joining groups. Central is not losing sight of the core profit drivers which are the engine room of any prime lamb business, namely growth, fertility, carcass (LMY) and Resilience. The icing on the cake depends on which direction clients wish to take in the future, through breed our core attributes into shedding, a finer wool and Meat Eating Quality (MEQ) lines.

We hope to catch up with many of you at Sheepvention or Cloven Hills Open Day and Ram Sales in the coming months.



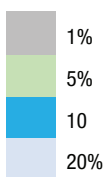
Why we do what we do!  
**They grow up so fast!**





## ASBVs FOR YEARLING RAM LAMBS DISPLAYED AT SHEEPVENTION 2024

LINE	VID	SIRE	MCP+	BWT	WWT	AWT	PEMD	PFAT	IMF	LMY	YFD	PWEC	YWR	WR	SHED/MICRON
CLASSIC	302333	CH-220858	203	0.5	13.8	13.1	3.0	-0.5	-1.3	8	2.3	-61.1	0.56	0.25	32.8
CLASSIC	303694	CH-220858	200	0.6	14.9	15.8	2.4	-0.4	-0.9	7.8	0.7	-64.4	0.52	0.24	30.4
CLASSIC	303130	CH-210286	187	0.5	9.4	11.7	2.1	-0.4	-0.9	6.2	1.0	-63.9	0.70	0.37	29.5
MICRON	304720	CH-223330	187	0.2	10.4	16.9	2.8	0.8	-0.4	5.5	-0.9	-59.7	0.59	0.31	25
MICRON	301752	CH-220078	182	0.7	8.1	12.1	2.2	-0.3	-0.4	5.6	-0.6	-36.2	0.60	0.32	26.9
MICRON	302278	CH-210767	172	0.4	6.2	9.1	1.9	0.4	0.0	3.5	-2.7	-66.7	0.48	0.30	23.4
SHED	301661	LFP-190084	159	0.1	6.2	7.1	2.7	-0.7	-0.8	5.9	N/A	-62.8	0.29	0.12	1.9
SHED	301080	LFP-190084	154	0.6	7.9	11.1	1.8	-1.1	-0.8	6.5	N/A	-61.1	0.25	0.09	2.5
SHED	300550	LFP-210022	145	0.2	5.5	8.0	1.4	0.6	-0.2	4.2	N/A	-52.6	0.28	0.13	3.4
SHED	300162	CP-218293	139	0.4	10.0	14.7	0.8	-1.1	-0.5	6.0	N/A	-35.0	0.18	0.11	2.3



Shedding Scores taken Summer

- 1 Animal does not grow wool
- 2 Animal grows a saddle of wool
- 3 Animal grows wool half way down the flank
- 4 Animal grows wool over most of body except legs, belly and breech area
- 5 Animal grows wool on all of body

Used as a sire for our 2024 drop



**RAM SALE ▶ TUES 1 OCT 2024 @ 10:30AM**  
**OPEN DAY, THURS 19 SEPT ▶ BOTH AT CLOVEN HILLS, 450 HAYDENS ROAD, NAREEN**