



CLOVEN HILLS

450 Haydens Rd, Nareen VIC 3315

Purpose bred for greater lamb production

"Flexible, profitable, sustainable"



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OPPORTUNITY KNOCKS

At a time when:

- ▶ lamb is over \$9/kg
- ▶ mutton is nearly \$6/kg
- ▶ interest rates are low
- ▶ there is growing demand for lamb from a range of export markets
- ▶ a strong domestic lamb market
- ▶ there is a limited supply of lamb nationally and globally; and
- ▶ the five year median agricultural land price (Compounded Annual Growth Rate) is strong and outstripping other investments nationally at 7% (Lefroy, July 2019, Rabobank).

There is a lot to be optimistic about

While it is easy to put your feet up and drop the throttle, pro-actively managing costs and optimising kilograms of lamb per hectare will see family farming businesses make the most of this once in a lifetime opportunity.

Chris and I are tempted by the lure of an extra holiday or some house renovations some of these things could bring. However, the lure of lamb, and the opportunity to continually improve and deliver better prime lamb genetics is mouth-watering! Whether it be producing tender and juicy lamb cuts or developing a modern and productive farm to produce them on, balancing the cash flow, animal health and the environmental objectives will never find you bored!

SHEEPVENTION | AUGUST 2019

While the market signals are all very positive, most farming businesses have had one or multiple seasons of tight and expensive feed conditions. While we can't complain in our pocket of Western Victoria, where we had a very good spring, not receiving our autumn break until June followed by a week of frosts has set up a tight and expensive late autumn and winter feed gap, as we enter the new financial year at 40% of our annual rainfall.

Furthermore, for any newly sown pasture, or in our case ex blue gum paddocks, the lateness of growth has reinforced, the importance of hardiness, moderately sized ewes and stocking rate efficiency and how important they are in driving profitability.

Fertility, growth and carcase are undoubtedly key breeding objectives for selecting prime lamb genetics. However, when more critically analysing costs and profitability, selection on hardiness, moderately sized ewes and stocking rate, are pivotal.



LANDMARK

Webb & Woodiwiss
SHEEPSTOCK MARKETING

RAM SALE ▶ MONDAY 7 OCTOBER 2019
OPEN DAY, THURS 26 SEPT 2019 ▶ BOTH AT CLOVEN HILLS, 450 HAYDENS ROAD, NAREEN

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Effect of stocking rate and Adult Weight on Profitability

As we travel around the country talking to farmers, the number one thing people are talking about is that cross-bred ewes are getting too big. The comments are that “They eat too much” and are “Too hard to handle”. This has again been reinforced recently having purchased composite ewes for a new blue gum block that weren’t Cloven Hills bloodlines. At 85-90 kg as 2 year olds, they didn’t stand up as well over the dry summer and autumn and bowled Chris over in the race several times when handled. With this in mind, we decided to have a go at quantifying what this might really mean in terms of costs and income.

Four scenarios were modelled for ewes with liveweights of 65, 75, 85 and 95 kg, respectively. The ewes were joined on the 15th February 2019 for 35 days. Given the late break to the season, the ewes were held in containment until Mothers Day (12th May) and were let out onto 2000 kg DM/ ha feed on offer (FOO). The total number of twin bearing ewes was 3500, which were set stocked at 7 ewes/ha across 500 ha. The target was to have a minimum of 1800 kg DM/ha FOO to optimise lamb survival.

However, there was a late start to the season, followed by frosts and so pasture growth rates during May, June, July, August and September were only 8, 15, 17, 22 and 50 kg/ha/day (Evergraze estimates for a poor year in Hamilton). Ewe pasture consumption was estimated to be 3% of body weight per day. Nett feed on offer (Starting FOO + Growth rates – Consumption) was plotted over the critical period from when the ewes were let out of containment (Day 87 of gestation) through to mid September (Day 210), when Spring started to really kick in (Figure 1).

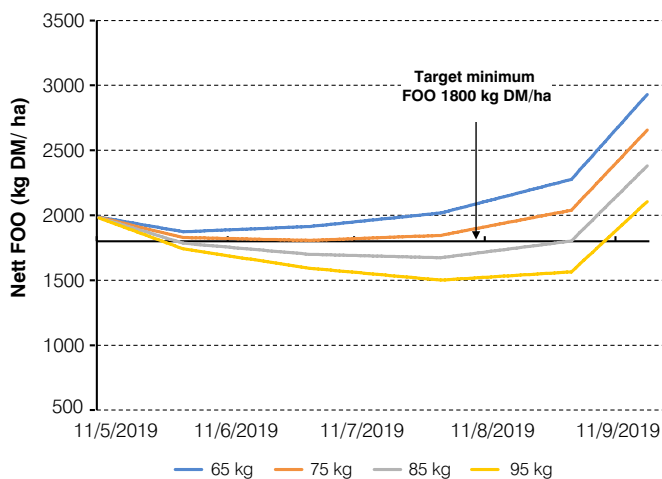


Figure 1. Estimate of nett feed on offer (FOO) kg DM/ha from 12/5 to 15/9 near Hamilton on a perennial ryegrass, phalaris, clover and annuals pasture with fertiliser near Hamilton during a “poor” season after set stocking twin bearing ewes with varying liveweights at 7 ewes/ha.

The results showed that the 65 kg ewes had FOO well above the critical threshold of 1800 kg DM/ha. However, at the equivalent stocking rate (7 ewes/ha), the 85 and 95 kg ewes were below this threshold for 93 and 105 consecutive days, respectively, coinciding with the last 50 days of gestation and peak lactation, which would compromise lamb and ewe survival.

Stocking rate was then varied for each ewe weight to determine which stocking rate would optimise feed utilisation but maintain a minimum of 1800 kg DM/ha to optimise lamb survival. These results indicated that in a “poor” season the optimum stocking rates for 65, 75, 85 and 95 kg ewes were 8.3, 7.2, 6.3 and 5.7 ewes/ha, respectively (table 1). This suggests up to 1300 fewer 95 kg ewes could be run on the same area (500 ha). Assuming this would achieve the same weaning percentages of 140% and selling price of \$140/hd, the difference in income between running 65 and 95 kg ewes could be up to \$254,800/yr. This highlights the importance of stocking rate as one of the key drivers for profitability, as well as the ability of more moderately sized ewes to withstand challenges, should the going get tough.

Table 1. Estimate of the opportunity cost associated with running a lower stocking rate with heavier ewes in order to maintain a minimum of 1800 kg DM/ ha FOO to optimise multiple lamb survival in a “poor” season.

	Ewe liveweight (kg)			
	65	75	85	95
Stocking rate (Ewes/ ha) required to maintain a minimum of 1800 kg FOO/ ha for twin bearing ewes	8.3	7.2	6.3	5.7
Ewes (Number)	4150	3600	3150	2850
Lambs (Number/ ha)	11.6	10.1	8.8	8.0
Lambs (Number)	5810	5040	4410	3990
Income (\$)	813400	705600	617400	558600
Opportunity cost relative to 65 kg ewe (\$)		-107800	-196000	-254800

Moreover, it is also important to consider the cost of supplementary feeding ewes with different body weights. This is particularly relevant in the season just passed where we were still containment feeding single bearing ewes up until late June. The assumptions are wheaten straw and barley were the feed sources and that these had a metabolizable energy (ME) value of 6 and 12 MJ/ kg DM and a landed price of \$105 and \$400/t, respectively. Dry matter for both is 90%.

Table 2 on page 3 demonstrates that the 95 kg ewes would be nearly \$60,000 more expensive to maintain than the 65 kg ewes, if fully supplementary fed for 14 weeks.

Table 2. Estimate of the cost of supplementary feeding ewes of varying liveweights for 6-14 weeks.

	Ewe liveweight (kg)			
	65	75	85	95
Average ME requirement for a twin bearing ewe from Day 40 to 90 (MJ/day) after conception	11.0	13.7	15.5	17.3
Straw intake (kg/hd/day)	1.43	1.65	1.87	2.09
ME from straw	7.7	8.9	10.1	11.3
Energy deficit (MJ/day)	3.2	4.8	5.4	6.1
Grain required to maintain condition (kg/hd/day)	0.30	0.44	0.50	0.56
Cost of straw (\$/hd/day)	0.15	0.17	0.20	0.22
Cost of grain (\$/hd/day)	0.12	0.18	0.20	0.22
Total cost of feed (\$/hd/day)	0.27	0.35	0.40	0.44
Total cost of feeding 3500 ewes for 6 weeks (\$)	39679	51519	58389	65258
Total cost of feeding 3500 ewes for 10 weeks (\$)	66132	85866	97314	108763
Total cost of feeding 3500 ewes for 14 weeks (\$)	92585	120212	136240	152268

In Summary

- ▶ **Comparing a 65kg ewe to a 85kg ewe reduces your stocking rate and income by 24%**
- ▶ **Completely supplementary feeding a 65kg vs 85kg ewe costs 48% more**

SGA BEST MATERNAL SIRES AND LOWEST ADULT WEIGHT - JULY 2019

We've worked hard on achieving high growth but low adult weight. Growth and adult weight are positively correlated, so if we are pushing growth it is important to select animals that are 'curve benders' and stop growing after post weaning.

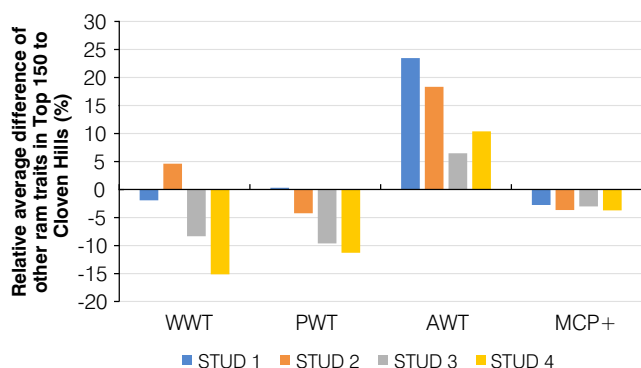


Figure 2. Cloven Hills rams have comparable or better ASBVs for growth and MCP+, but significantly lower adult weights (6-23%) than those from other leading breeders.

This is reflected in our average ewe liveweight of 65 kg and our ability to run high stocking rates (18 DSE/ha) and achieve high weaning percentages (145-155%) in our commercial flock. Following from the analysis presented above, we have no doubt the significant growth in our business over the past 12 years is directly linked to our ewes and their ability to perform when the going gets tough.

Cloven Hills rams:

- ▶ 9 out of the top 20, incl. the top 4 rams in Australia
- ▶ 18 in top 50
- ▶ 26 in top 100
- ▶ highest numbers of any stand-alone maternal prime lamb stud

Cloven Hills genetics have been sold and successfully introduced to prime lamb operations in every state in Australia, except the Northern Territory

The basis of Cloven Hills' practice is generations of data gathered from a lot of strong blood lines.

- ▶ You can't see fertility, you can't see intra-muscular fat.
- ▶ Extensive data analysis, dictating heavy culling and selection for desirable traits - including moderate adult weight and black feet.
- ▶ Client testimonial in the trying conditions of both Victoria and Tasmania, paired with current data, indicates successful meeting of Cloven Hills' production objectives:

#1 RANKED RAM – CLOVEN HILLS - 17-188

- ▶ Good eating quality, top 1% shear force
- ▶ Good scrotal circumference (top 1%), good fertility
- ▶ Sire: Twin Farms 07-807, 1000s of progeny on the ground in Australia and New Zealand, still ranked in top 50

#2 RANKED RAM - CLOVEN HILLS - 15-909

- ▶ Outstanding post weaning weight (top 1%), trait leader for milk, fertility and lean meat yield, 88 progeny on the ground at Cloven Hills

#3 RANKED RAM – CLOVEN HILLS - 17-012





- ▶ Highly ranked across the board for low adult weight, fertility, growth, muscle and yield
- ▶ Maternal grandsire: Twin Farms 07-807; Sire Cloven Hills 14-919, progeny in multiple flocks, still ranked in top 50

#4 RANKED RAM – CLOVEN HILLS - 17-666

- ▶ Highly ranked for muscle, growth and yearling fertility
- ▶ Grandsire: #2 ram Cloven Hills 15-909

SOME OF CLOVEN HILLS TOP 2018 SIRES (SEE PHOTOS BELOW)

National Rank	ID	MCP+	MAT\$	BWT	MWWT	WWT	PWT	AWT	PWEC	PSC	YNLW	NLW	PFAT	PEMD	DRESS	LMY	IMF	SHEARF5
1	17-188	174.1	177	0.46	-0.2	9.3	16.4	11.6	-17	8.35	19%	13%	0.3	3.1	3	4.42	-0.35	-0.9
3	17-012	171.2	176	0.62	-0.3	10.4	16.9	12.3	-18	6.44	20%	15%	-0.8	2.1	2.7	5.83	-0.65	2.6
4	17-666	169.5	175	0.57	0.6	10.6	16.9	13.9	-5	5.52	20%	12%	-0.9	2.7	3.4	7.06	-0.94	4.5
13	17-529	165.9	171	0.21	-0.1	8.8	14.1	11.2	-52	5.2	21%	17%	0.1	2.3	3.2	4.97	-0.56	3.8

	ADULT WEIGHT LOWER THAN PWT		Top 1-5%
	SUITABLE FOR EWE LAMBS		Top 10%
		Bold	Top 20%



17-188



17-012



17-666



17-529

PURCHASING SHEEP – HARDINESS

Having recently taken the opportunity to purchase some nearby ex-forestry land together with the Cloven Hills ex blue-gum block we purchased a few years ago, ewe productivity and hardiness is on our radar. For some years, clients consistently say that they specifically select Cloven Hills genetics as the rams and their daughters have significantly better hardiness. This means lower death rates, greater longevity (productive to an older age) and better doing ability (maintained better condition on equivalent pasture). All things that are not readily measured on the current indexes, but things we have had to commercially select on. For example, we condition score all ewes 3-4 times a year and select productive ewes that are better at maintaining condition. Commercially, it also enables better return for money spent on feeding and we don't waste feed on fat multiple ewes, quite a saving when 75-85% are multiple bearing ewes and feed is \$400/tonne.

Having recently purchased in a range of ewes to our new ex-blue gum block, in a tight autumn and winter, we have again started to push this selection criteria on them. Over the past 13 years we have run a lot of Cloven Hills ewes in blue gums (which has enabled us to renovate 85% of Cloven Hills pastures). This has given us certain expectations about what we can and can't achieve depending on the block, season and time of year. In general, we could lamb down twin bearing ewes in the trees and get 92% survival, but with lower lamb growth rates because of lesser feed quality and

slightly higher ewe mortality. Observations on our ewes from other bloodlines on our new tree block suggest a higher than expected ewe death rate, difficulty in maintaining condition and lower lamb survival.

Furthermore, we also believe the ewes are on average 15kg heavier in body weight. In reading Chris' analysis above, we believe this could be a considerable factor, as our feed budgeting didn't increase the late autumn ration enough and, when ewes are close to lambing and have primarily low quality feed around them, they can't increase their intake enough to meet requirements, leading to higher pregnancy toxemia and possibly hypercalcaemia. This impacted more ewes that lambed in May/early June (versus July/August) when feed was more scarce. We have therefore gone to putting in screwed down lick feeders in ex blue-gums while they are lambing.

From discussing this experience with other farmers, be it merinos or composites, it also reinforces two things:

- ▶ **how valuable your ewes are in driving your businesses profitability; and**
- ▶ **knowing what your ewes are and aren't capable of and where they can improve.**

Unfortunately, we lost one of our seminal sires (Cloven Hills – 110043) earlier this year, who went downhill after a hip injury inflicted by one of the younger rams. However, we took great pride and satisfaction in seeing his twin sister Cloven Hills-110042 lining up for another year. Her track record is as impressive as her brother's having reared 15 lambs in 7 years, including as a ewe lamb. She has weaned 97% of her bodyweight every year and weaned 214%/yr. This year she is SIL to triplets.



Cloven Hills – 110042. The twin sister to 110043 whose performance and longevity is equally impressive rearing 15 lambs in 7 years at an average efficiency of 97%.

FEEDING

While talking about this autumn/winter, we also thought it worth mentioning a few more learnings! We fed a variety of different feeds from our own silage, cereal hay, vetch, canola hay, straw and mix of grain primarily barley and lentils but sometimes containing a small percentage of peas and wheat. We also fed lupins at joining, as we believe they are superior to other protein sources for flushing and synchronising ewes prior to and during joining.

All feed rations always had a mix of feeds, however when we fed canola hay, they preferred to eat it and we lost ewes from sudden death and nitrate poisoning. Straw and grain were certainly our most efficient feed ration, however in a year where grain is expensive, silage and other hay was more cost effective even with the extra time spent on feeding it out.

After an early June break and several frosts, we decided to apply urea and gibberellic acid on Cloven Hills to increase feed for multiple bearing ewes over July/August lambing. In one paddock where the phalaris is only a year and a half old, we got phalaris poisoning. This was after 3 weeks of grazing. Luckily, we were in the process of putting cattle tags on stud ewes and we picked it up quickly and decided to spray out cobalt on any similar paddocks. As gibberellic acid makes the plant stand up more, we believe ewes chewed more off easily and this is maybe why we had the poisoning so late in June.

ADDING UP ALL THE 2%'S THAT COST MARGIN

After an expensive autumn and winter, it is a good time to measure and add up all the 2%'s that cost your business margin and assess how to improve them.

For example-

2% higher death rate in 1000 ewes—20 ewes at \$200 = \$4,000 plus their 28 lambs @ \$140=\$3920 Total \$7920. If you have 5000 ewes this is \$39,600

2% less yield on a 50kg LWT lamb is 1kg DWT or \$8 / head, \$11,200 per 1000 ewes marking 140% lambs

2% less growth 250g/day over 4 months, 2%=5grams x 124 days = 620g x .465 =288g DWT x \$8/kg = \$2.3/hd for 1000 ewes, 1400 lambs are \$3229

The cost of 2 extra drenches labour, handling of stock and drench

The cost of running 2% less ewes per hectare 70 ewes and 98 lambs = \$13,720

The cost of feeding and running heavier ewes.

How much time do you spend pulling terminal lambs out of first cross ewes?

Hence when we get asked what we think about wool and comparing a prime lamb versus a dual-purpose system (1stX) we don't think there is a straightforward answer. It depends where your flock sits, and what you enjoy and can do with your farm, stock, labour and budget. There are always trade-offs and changes of 5-10% across fertility, growth, yield, ewe size and stocking rate make considerable differences. Furthermore, if you change one thing, it usually impacts another, some traits have positive correlations to other traits while others such as fertility and fleece are negatively correlated.

WESLEY DALE OPEN DAY - FEBRUARY 2019

It was great to have our first Open Day at "Wesley Dale", Chudleigh, TAS on Friday 22nd February, 2019. The Open Day was very well attended with clients taking home a mixture of 2017 and 2018 drop ram lambs ready for their 2019 joining programs.

After speaking with a range of local producers over the past twelve months, the rams were specifically chosen for Tasmania, having moderate adult weights but high growth, fertility and overall MCP+ indexes. We enjoyed working through the ASBVs for individual rams to help clients tailor their selections based on their personal breeding objectives, such as worm tolerance, birth weight and carcase attributes. We also think attendees appreciated having first access to some of Cloven Hills top 2018 drop genetics, ahead of our on-property ram sale in October.

We are very grateful of the support shown to us by new and existing clients in Tasmania and would like to especially thank Helen Baillie (Wesley Dale) and Mark Webb (Webb & Woodiwiss) and their respective teams for making the day such a success.



WHAT OUR CLIENTS SAY:

Helen Baillie - Wesley Dale Ewes, Mole Creek TAS



STRAIGHTFORWARD lambing, high fertility, 'amazing' lamb survival and ease of selection with Cloven Hills rams, tick all the boxes on Helen Baillie's 'must haves' for her Wesley Dale property.

Originally running heavy ewes on the Mole Creek property, Helen found that difficulty in handling and the need for lower stocking rates were impacting negatively on the farm and initially made the move to New Zealand's Kelso genetics.

"With the big ewes we were running earlier, the large animals were too big to handle, the shearers didn't like them and we couldn't produce as many kilos of lamb per hectare as we could with a smaller animal," Helen said.

"When we couldn't get any more Kelso, we started looking around for a something new for the property.



"Initially we went to (Hamilton's) Sheepvention and we liked the look of the Cloven Hills rams – they were similar to the Kelsos with moderate size, high fertility and excellent early growth."

Running a high stocking rate, compared to other studs in the district, Helen's needs were simple – a moderately-sized animal which would lamb easily, grow out quickly and produce the numbers required to keep her business successful.

In her first season with Cloven Hills, her stud ewes were joined exclusively to seven Cloven Hills rams and the results spoke for themselves.

"They did absolutely fantastic at marking - we didn't scan for triplets and we marked lambs at almost the same rate as scanning – around 177 per cent," she said.

"There was certainly no issue with the lower birth weight, survival was excellent and in the first few weeks the growth in the lambs was incredible.

“And we didn’t have to pull lambs, we didn’t have a single problem with lambing, it was just straightforward and easy.”

At Cloven Hills, Kate and Chris Dorahy know every ram produced on their property and collect and publish extensive data on every animal they sell.

Kate’s extensive knowledge of how to assess and select for particular or multiple traits using that data is a huge attraction for Wesley Dale.

“Two years ago, when we went over and had a look at the Cloven Hills sale, we didn’t buy anything but talked about how we could work together,” Helen said.

“We want some level of control over what we do, which is why we breed our own lambs and all we needed to do with Kate was explain what we wanted, what we needed to do and Kate and Chris helped us select and brought that to us.

“There is so much information available on the rams and their sale catalogue is extremely well put together – even if you are not going to see the rams, there is enough data in the catalogue to make a sound decision on buying a Cloven Hills ram.

“Kate is incredibly good to talk to, she’s well-informed and happy to share every bit of information and knowledge she has, to help our business.

“And talk about available – it’s just extraordinary!”

Top genetics fit the bill for Mark Webb



WEBB and Woodiwiss director Mark Webb is investing his time and his own money into Cloven Hills maternal genetics.

Approached to carry out Cloven Hills ram sales in Tasmania on behalf of principals Kate and Chris Dorahy, Mark is so impressed with the Western Victorian stud, a selection of Cloven Hills rams will find a home with the agent’s own Composite flock.

“We’ve got a vast clientele and network of Composite sheep producers within our client base, Kate and Chris have seen an opportunity to enter the market down here, they’re taking that opportunity and we’re happy to be working with them,” Mark said.

“Kate is obviously very good with her data collection and is measuring all aspects of what people are looking for within our industry ... it makes ram selection very simple.”

He said with increasing OHS focus and the legalities of employing farm workers – particularly shearers – on property, as well as a desire for higher stocking rates while maintaining high production levels, the moderate weights of Cloven Hills progeny made it ideal in modern prime lamb production.

“A strong focus on mature ewe weight is becoming more and more needed within our industry,” Mark said.

“A body weight of 85 to 95 kilos creates problems with handling; Cloven Hills (genetics) produces a ewe around 65 kilos, without losing the fertility of those ewes and they are weaning 75 to 80 per cent of their body weight.”

Mark’s own property is a producer of domestic and export lambs, running 2300 Composite ewes over 380 hectares.

“We’re a producer of domestic lambs (but) it would be unreasonable to say that we’re not a producer of export lambs, just because of our growing season and the time-frame we have to finish and get lambs up and away,” he said.

“While we still have plenty of lambs reaching that export target, most people try and produce a 22 to 24 kilogram carcass, to fit domestic trade and supermarket requirements.”

He said the trait selections required to meet those market needs as well as being easily adapted to the cool, often wet climates, had been found by existing Tasmanian Cloven Hills clients.

“We need to breed a sheep that was tough, that could stand our weather conditions, had good worm resistance and good lamb survivability,” he said.

“Lamb survivability has been good, obviously no one can control the weather, but they sort of stand alone in survivability rates against other genetics,” Mark said.

“We’re looking at joining in a month to six weeks and we’re confident bringing Kate and Chris’ rams into our operation.”

Moderate ewe size, lamb survival and growth - keys for Bucklands



PRIME lamb production is a numbers game and Steve and Debbie Buckland’s numbers show the introduction of Cloven Hills Composite maternal genetics to their property, to be a multiplier of impressive value.

Sheep farmers for more than 30 years, the Bucklands made the decision to move to a self-replacing flock two years ago and turned to south west Victoria to grow their business at Winkleigh.

With Steve working mostly off-farm as an engineer, and Debbie responsible for most of the farm work, a moderately sized animal of good temperament, was first and foremost on the Bucklands' list of desirable traits.

"I basically wanted an animal that would lie down and not fight too much when I need it to," Debbie said, having had Polwarths in the past for this reason, so temperament was a prime consideration.

"Size was a big thing for us, as well as temperament; we were avoiding those big animals and that was one of the first things we spoke to Kate and Chris about.

"We have three rams that we had sent over here from them late 2017 and they just have great temperaments and are very easy to handle."

Their first lambing using Cloven Hills genetics exclusively, was in June 2018 and produced progeny with unprecedented growth rates for their property and validated their decision to be a self-replacing operation.

"We marked 97 lambs from 76 ewes, we did not lose any lambs from marking to today," Debbie said.

"We kept 100 per cent of the autumn ewe lambs for our self-replacing flock ... the wether portion was sold to Woolworths, straight off their mothers," Steve said.

"During October the wethers recorded an average of 510 grams per day weight gain ... there's never been weight gains anywhere near that on our property ... we had to convince the agent the numbers were correct; they averaged 23.2 kilograms, dressed weight, at around 21 weeks.

"The ewe lambs averaged 390 grams per day weight gain ... really good numbers."

The added surprise in assessing the autumn-drop lambs, was the seasonal conditions; the above-average weight gains and turn-out from the Cloven Hills lambing, fell in the middle of a 'very ordinary' dry October.

And that was purely on pasture, no supplementary feed ... it was just incredible," Debbie said.

"We put it down to the genetics – they're there to breed hardy maternals and that's what we're getting with the ewe refinements and the better rams.

"The other area that we spoke to Kate and Chris about, when we were going through and doing the selection of rams, was that we are pretty wet down here at times; we're

in a metre-plus rainfall district and we were looking for fleece and hooves that would cope with that.

"The dark hooves on the Cloven Hills rams is inherited well by the progeny and in the past, we would always have a big butt of waterstained wool; I don't think we're getting any waterstain at all with the Cloven Hills sheep ... we've got some ready for shearing and they're looking good."

The Bucklands' spring lambing statistics confirmed they had made the right decision, in choosing Cloven Hills genetics for their prime lamb production.

Separating their flock into three mobs, their two-year-old White Suffolk x Coopworth ewes – joined with the Cloven Hills rams - successfully produced a faster-growing lamb than older ewes joined with existing ram stock.

The Cloven Hills progeny – across the board – averaged 37.6 kilograms at round 17 weeks; by comparison, three-year-old Coopworth ewes joined to White Suffolk averaged 36 kilograms and mixed age Border Leister X joined to Charollais and mixed breed ewe lambs joined to Southdown 33.2 kilograms.

"The only tail we had were some second-cycle lambs, because we left the rams in a bit longer, and some triplets"

With 120 Cloven Hills ewe lambs now ready for their first joining, the Bucklands have already ordered their next three Cloven Hills rams, to help expand their flock.

"When we first contacted Kate and Chris, we didn't even know if they'd want to talk to small scale farmers like us, but they made us feel very welcome," Debbie said.

"We know we are only little fish in a big pond and to receive the level of service we do from them, is just unbelievable."



“SLOW COOKED” APPROACH TO BLUEGUM REVERSION

One upside to the dry autumn we have just experienced, is that it has enabled us to do a fair bit of work on reverting the new bluegum block we have bought with friends, north of Coleraine. Our approach has been to buy a forestry skidder and chopper roller to knock down coppice and split open the stumps to start the process of organic matter decomposition.



Soil biology in action

This approach has been very successful on our Cloven Hills tree block in that the rate of break down of huge amounts of harvest residue through chopper rolling and then discing has been amazing. Moreover, the trash acts as a perfect substrate for soil biological activity, particularly fungi, which are turning previously hard stumps and logs into light, brittle, polystyrene like material within 3 years. The improved moisture holding capacity of the soil underneath the mulch was very evident during the hot-dry summer just past, with green pick growing from remnant phalaris between the rows. The high loading of organic material into these soils (10-15 t/ha) should add several tonnes of non-labile carbon to the soil, and will improve soil structure, infiltration rates and soil water holding capacity, as well as nutrient cycling in the system. In contrast to many claims about various products in the market place, this is real evidence of soil biology in action!





Summer crop in Cloven Hills after 4 grazings in late autumn

We have also ground about 200 ha of stumps and coppice on the block to clear stumps along proposed fence lines. Rather than burning the trash and coppice, this has been mulched back into the soil and is already breaking down well. This will be chopper rolled again during the summer in preparation for subsequent discing.



In the short-term, this strategy has had its challenges:

- ▶ The first couple of passes with implements and machinery is slow and tough on equipment
- ▶ It is more difficult to check and muster stock
- ▶ The high loading of organic matter in the system does tie up nitrogen in the soil.

However, we believe the longer term benefits in terms of improved soil health and productivity, will outweigh these challenges, particularly given the fragile nature of some of our highly weathered and fragile Dundas Tablelands soils (Grey and Yellow Sodosols). Not to mention the significant cost savings from reverting it slowly.

Aerial application of seed and fertiliser

Spending less on diesel and contractors has provided more budget for fertiliser, lime, seed and infrastructure. We spread 2 tonnes lime/ha using a ground rig across 600 ha, but spread 145 kg DAP per hectare using the plane. We also aurally spread a ryegrass/ clover seed mix at 24 kg/ha on the ground areas and a Balansa & Persian clover mix at 4 kg/ha on the chopper rolled areas. This was quite a logistical exercise but was very effective in getting the job done quickly before the opening rains finally arrived. A big thank you to Andrew Dufty from Melville Forest for allowing us to use one of his paddocks as a makeshift airstrip.





IN SUMMARY

We think sheep and the prime lamb industry is a great industry to be in, we have strong consumer demand for lamb domestically and from a range of countries overseas. There are many more things we as producers can do to improve and develop our product, systems and productivity.

Working out where you can improve, what is or isn't important, how you can measure what is important now and potentially in the future, as technology improves and becomes cost effective on farm.

Small cumulative things add up. Last year we had John Houlihan drenching, wetting and drying, checking udders and crutching ewes through our Clipex handler as we marked lambs. John put everything into our XR5000 Trutest indicator, and we had a complete data set on our ewes (commercial and stud) ready for culling at weaning, and ewes were ready for shearing. For marking multiple mobs the timing of this worked really well, thank-you John!



Thank you to the Cloven Hills team that have helped in various roles over the last 12 months, Jordan Cozella, Paul Robins, Laurie Jones, Peter Shepherd, Peter Wathen, Paul Beauglehole, Isar Rietman, Sean Sullivan, Casey Jones, Dean Whitchurch and Warwick and Lynn Brown.



3 month old Cloven Hills commercial ewe lambs - 7 November 2018.



2018 sale rams.



3 month old Cloven Hills commercial ewe lambs - 7 November 2018.



2018 ram sale.



2018 ram sale.

RAM SALE ▶ MONDAY 7 OCTOBER 2019
OPEN DAY, THURS 26 SEPT 2019 ▶ BOTH AT CLOVEN HILLS, 450 HAYDENS ROAD, NAREEN

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