# MOUNT RONAN

## WHITE SUFFOLKS & MATERNALS

Specialising in the breeding of elite quality prime rams



## UPDATE & BACKGROUND TO THE MOUNT RONAN BREEDING PROGRAM





September 2021

ACCREDITED BRUCELLOSIS FREE FLOCK No. OV/AC/044



A group of typical Mount Ronan rams ..... ....world class profit genetics in an athletic package.

"The profitability of our producers' prime lamb enterprises is the key to the future of Mount Ronan."

Mount Ronan contact details:								
Guy Bowen	Phone - Email - Website - Facebook -	(08) 96411483 mob: 0499 856 345 <u>mountronan@bordernet.com.au</u> <u>www.mountronan.com.au</u> Mount Ronan White Suffolks and Maternals						
		For more information:						
		Lynton Saunders 0447 254 843 Tim Spicer 0427 812 194						
		RIVERINA LIVESTOCK AGENTS						
		<b>Tim Drum</b> 0488 317 058						
		RLA riverina livestock agents the basi (a the knew						

## MOUNT RONAN GENETICS......

## .....DRIVING PROFIT!!!!

"We like the Mount Ronan sheep. They are everything we are chasing. The thing I like the most is their carcase type. Despite the fact that a lot of work has been put into their maternal characteristics they still have very good carcase attributes.

The ewes produce very uniform lines of lambs with very well-muscled carcases which yield really well. Their fat scores just seem to drop into the grid wherever you put them.

We turn off top-end supermarket lambs in the 2-3 scores. We take them out to heavy export weights around 32 kilos and they are mostly 3-4 scores.

After more than 50 years of selection for resilience at Mount Ronan the ewes have the ability to "do" in tough conditions and keep bouncing back. That strong constitution is what you get in the Mount Ronan sheep.



Andrew Hunter and son Royce, with champion sheep dog, Bruiser.

Last year our mature ewes scanned 191 percent across the flock after three years of drought, and this year they scanned 207 per cent for all ewes including hoggets. They are wonderful, functional mothers and lamb survival is outstanding."

#### Andrew Hunter, Hills Park, Yerong Creek, NSW.



"Mount Ronan White Suffolks and Maternals are wonderful sheep. If you are looking for "bang for buck" and wanting maximum kilograms of lamb per hectare, then don't bother looking anywhere else."

#### Justy Fleay, *Redgum Hills*, Kojonup, WA.

"I think a massive advantage of these Maternals is their mothering ability. I see them physically counting their lambs, they are great milkers and they stamp their hooves at the dogs. The lambs have wonderful doing ability and are quicker maturing.

One of the main advantages is when I sell export lambs they are not bubbling with fat.

They make your mouth water just looking at them. They are very heavy but their leanness is very good."

#### Owen Blake, Tandari Pastoral, Harefield, NSW.



Cameron Male, with his son Andrew.

"We found it hard to buy first cross ewes we liked without paying too much for them, so that's why we switched over to the Maternals.

We went to Mount Ronan in WA because of their reputation. The rams are easy doing and have longevity and produce unbelievable mothers. They are just so protective of their newborns.

The lambs are very easy doing and their growth rates are phenomenal.

We buy the rams online through Auctions Plus. We know what we are getting using ASBVs and we haven't been disappointed yet.

It's a really simple process and no drama at all getting them trucked over here."

Cameron Male, Dalrye, Yerong Creek, NSW.



## WELCOME TO MOUNT RONAN......

I started this breeding program 53 years ago. I am now more convinced than ever that the search for outstanding high-production females has yielded wonderful commercial performance in the Mount Ronan sheep genotype. We are convinced that these rams will uphold the Mount Ronan tradition of resilience, robustness, and outstanding prime lamb production performance.

#### For more than half a century, we have been actively searching for tough sheep which produce wonderful results over a long lifetime. We expect Mount Ronan rams to enjoy a long and productive working life.

We are gratified by the wonderful feedback we have received from producers in WA and in the Eastern States.

As usual, all the rams are vaccinated with Guidair, Glanvac B12 6 in 1, and Scabiguard. They are guaranteed to be free of lice and the flock is accredited free of brucellosis. (OVAC flock 44)



## What is the Mount Ronan breeding program all about?

The Mount Ronan breeding program is aimed "fairly and squarely" at maximising producers' lamb enterprise profitability. The difference between our breeding program and most others is that we have always placed a much greater breeding emphasis on ewes than rams. I truly believe that the greatest rate of genetic gain is made by a detailed study and observation of female type and performance. This view is supported by investigation into cellular physiology at a mitochondrial level. The mitochondria are the power stations of the living cells.

The identification of those truly-proven elite ewes in our flock which possess outstanding production genes is our focus.

We select sons of these ewes, and others, to spread their genes widely throughout the flock, and we also introduce new genetics via these ewes. If they are artificially inseminated to new-blood rams and the progeny are less than outstanding performers, then we know that those rams are simply not good enough for our purposes.

The use of outside genetics is essential for genetic diversity, and also helps with genetic linkages on LAMBPLAN and greater accuracy of ASBVs.

We used 10 ram lambs in the sire team for the 2020 crop of lambs with consistently good results. This is standard practice within our breeding program.

## <u>MOUNT RONAN GENETICS.....</u> .....DRIVING PROFIT !!!



"After trialling many industry leading ASBV maternals, Mount Ronan rose to the top as a result of many generations focussed on breeding resilience, mothering ability and feed efficiency expressed as performance under high stocking - our principle profit driver."

Michael Cameron, "Cherylton Farms" Kojonup WA, 2018

"My initial concern was that the progeny of the Maternals would not compare with my Poll Dorsets for growth and carcase yield. I have discovered that these rams produce lambs with wonderful growth and high carcase yield, and the rams are a lot more vigorous and athletic than Poll Dorsets. 223 lambs sired by Mount Ronan Maternals sold end July at Wagga Livestock Exchange for \$287.20 per head. Estimated live weight 75-76 kg."

(A later draft of 232 lambs from the same drop sold for more than \$300 per head)

Owen Blake, "Tandari Pastoral" Harefield NSW, 2018

Freshly weaned ewe lambs at "Hills Park", 2017.



"We have been using Mount Ronan genetics for 6 years. This year is really showing us the extreme resilience of the Mount Ronan bloodline.

The entire mature ewe flock pregnancy scanned at 204.1% this year (with no drug assistance). We know these ewes will deliver us excellent lamb survival as they have always done for us before. The extreme muscling of the lambs give us a sought after carcase at supermarket weights and remarkable yields at export size. Some of the growth rates we have observed in the feedlot have been phenomenal.

Mount Ronan delivers us the complete genetic production package."

Andrew Hunter, "Hills Park" Yerong Creek NSW, 2018

## **MOUNT RONAN GENETICS IN ACTION**



Marking percentage of this mob of ewes was 219%.

"Hills Park", Yerong Creek NSW, 14 September 2018.





Magnificent prime lambs, sired by Mount Ronan White Suffolk rams, and out of Mount Ronan Maternal bloodline ewes.

Tony and Charlotte Fisher, "Eulo Grazing" Kojonup, October 2017.

**Kill results:** 198 lambs (pictured above) sent to V & V Walsh in early October 2017.

Average carcase weight: 22.87kg Price/kg: \$5.47 Average price/head: \$125+\$5 skins = \$130

## Long history of production genetics

My concept of the ideal meat sheep has not changed over the last 53 years. The heavily-muscled, fast-growing, medium-legged animal with smooth shoulders, a long, deep barrel, width across the loins and area in the hind quarters, has always been the Mount Ronan type. Coupled with this is selection for hardiness and mothering ability.... females which lamb easily and grow lambs quickly.....females which can count to at least three and nourish multiple offspring.

The transition from a breeding program producing specialist terminal/ meat genetics to one including specialist maternal/mothering genetics has been a very simple one for Mount Ronan. All those decades of



2006 drop White Suffolk lambs at Mount Ronan. Muscular, growthy, high-yielding genetics have always been the focus over the decades.

selection for mothering ability, temperament and maternal performance has resulted in terminal ewes which are exceptional maternals as well.

When the dedicated Maternal program was initiated in 2003, we introduced the best available maternal genetics from Australia and New Zealand. We found some outstanding individual sheep, but generally a lot of the introduced stock was weeded out pretty quickly. They simply "lacked grunt", and essentially all of them were deficient mothers compared to our home-bred ewes.

It was the infusion of the hardy, high-performance Mount Ronan White Suffolk genetics which, when incorporated into the foundation stock, had the greatest impact on production. Most Mount Ronan Maternals have at least 50% Mount Ronan White Suffolk genetics in their makeup.

We have selectively introduced New Zealand maternal genetics into our program over more recent years but have found them to be lacking in grunt generally. After a couple of "run throughs" of the White Suffolk flock, they begin to harden up constitutionally.

#### The `grunt gene' remains King at Mount Ronan !!.... .....that's the Mount Ronan trademark.

The type of sheep we are breeding now are the type of sheep we have always produced..... it's just that we are continuing to identify those truly outstanding animals which provide the extra genetic boost in performance with consequent higher levels of profitability per hectare.

Our identification and utilisation of those outstandingly efficient females will continue. We have now developed the measurement tools to enable us to identify them more easily. We will continue to embryo flush the proven elite ewes and concentrate on breeding from their top sons and daughters.

The hardy Mount Ronan White Suffolk genetics powers our Maternal program. These genetics go back directly to the outstanding Suffolk flock I founded in 1969.

### Breeding for enhanced worm resistance

Our sheep flock has established over decades a reputation for resilience and constitutional strength.

In early July we collected individual faecal samples from the entire cohort of 2020 drop rams to assist in the provision and accuracy of worm egg count ASBVs. We deliberately put these rams under a lot of pressure to increase worm burden, and surprisingly the rams generally looked very healthy.

The range in individual worm egg counts was truly amazing, with some rams having 0 eggs per gram and the highest having 5700! This range provided a fantastic data set for robust statistical analysis. Most of our rams truly are quite resilient to worm burdens, meaning that despite their infection load they continued to perform well.

Previously we relied on genomics and the use of AI sires with good FEC data to obtain some information on individual animals. However, with direct and widespread measurement of the trait this year (and in the 2019 drop rams last year) we can now provide FEC ASBV data across our full sire team and for all rams on offer in our spring sale.

We will continue to collect faecal samples for individual worm analysis in order to improve the accuracy of the worm resistance ASBV (PFEC). Any outside sires we use in our AI or ET programs are all strongly or highly resistant to internal parasites.

## WHITE SUFFOLK PROGRAM STILL TOP SHELF

The table below shows the progress of Mount Ronan terminal flock ASBVs in the last decade, compared with the average of all LAMBPLAN (SGA) measured White Suffolk flocks in Australia (Terminal 23).

There is an immense difference between the average muscle ASBV (PEMD) of the Mount Ronan White Suffolk flock and that of the average White Suffolk flock in Australia.

Mount Ronan White Suffolk sheep have always been far more muscular than the average White Suffolk sheep on LAMBPLAN in Australia, and the flock has always possessed higher than average growth-rate genetics.

As a result of these factors, and because Mount Ronan birth weight genetics are around average, lambs sired by Mount Ronan rams are generally born easily and grow muscle mass very quickly. This greatly reduces time-to-slaughter and results in increased carcase yield.

The average PFAT ASBV for the Mount Ronan White Suffolk flock is ideal to cater for mating with Merino or Maternal ewes.

TERMINAL - 23								
	Bwt	Wwt	Pwwt	Pfat	Pemd	TCP	LEQ	
2012	0.30	7.42	11.54	-0.56	0.76	126.8	122.9	
2013	0.30	7.74	12.05	-0.54	0.87	128.4	124.2	
2014	0.31	8.06	12.53	-0.54	1.01	130.0	125.6	
2015	0.30	8.33	12.95	-0.51	1.14	131.3	126.7	
2016	0.30	8.63	13.43	-0.48	1.26	132.9	128.1	
2017	0.31	9.00	14.03	-0.45	1.43	135.1	130.4	
2018	0.32	9.28	14.49	-0.42	1.56	137.1	132.2	
2019	0.33	9.57	14.96	-0.39	1.70	139.1	134.2	
2020	0.33	9.80	15.39	-0.33	1.87	141.5	136.7	

	Bwt	Wwt	Pwwt	Pfat	Pemd	TCP	LEQ
2012	0.22	7.38	11.74	-0.54	1.66	132.3	127.
2013	0.26	7.47	11.83	-0.43	1.98	134.7	130.
2014	0.28	7.98	12.47	-0.46	2.10	136.7	133.
2015	0.33	8.60	13.13	-0.45	2.05	137.3	133.
2016	0.25	8.43	13.16	-0.25	2.21	137.2	134.
2017	0.32	9.03	14.01	-0.25	2.13	139.8	138.
2018	0.30	8.98	13.98	-0.25	2.26	140.5	139.4
2019	0.35	9.47	14.73	-0.18	2.47	145.7	145.
2020	0.37	9.50	14.94	-0.14	2.66	148.9	149.4



Above: Comparison between the average eye muscle depth of the White Suffolk flock on LAMBPLAN and the average eye muscle depth of the MOUNT RONAN White Suffolk flock on LAMBPLAN.



Above: Comparison of MOUNT RONAN LEQ Index with the White Suffolk LAMBPLAN tested breed average.

Using the power of Mount Ronan genetics will put more money in your wallet ...

The accuracies of the ASBVs are extremely high because Mount Ronan has measured so many sheep on LAMBPLAN .....and

## It is the wonderful balance between growth and muscling, and the outstanding resilience of the Mount Ronan sheep genotype which sets them apart from the rest.

	BWT	WWT	PWWT	PFAT	PEMD	ТСР	LEQ
Mount Ronan	0.37	9.50	14.94	-0.14	2.66	148.9	149.4
average							
White Suffolk	0.33	9.80	15.39	-0.33	1.87	141.5	136.7
average							

## SO WHAT'S THE DIFFERENCE BETWEEN OUR MATERNALS AND OUR WHITE SUFFOLK SHEEP?



This is a question we are being asked on a more regular basis, and it is a good one.

Our White Suffolks and our Maternal sheep are all direct descendants of the outstanding Suffolk flock I founded in 1969.

The White Suffolk breeding program was commenced in 1989 and the Maternal program in 2003. Both types of sheep are run together except when being mated. We collect the same data for both sheep types and assess their commercial performance in exactly the same way.

When the collected data is submitted to LAMBPLAN, the White Suffolk data goes into the national White Suffolk dataset, and the Maternal data goes into the national Commercial Maternal dataset.

Our White Suffolk sheep possess Suffolk, White Suffolk, Poll Dorset, and a trace of White Dorper genetics in their background. The Maternals have Suffolk, White Suffolk, Poll Dorset, and traces of White Dorper, Border Leicester, Texel, Finn and East Friesian genetics. Some of the Maternals have a recent infusion of specially selected Merino genetics as well.

We are working hard to increase individual dam efficiency in both flocks, although we believe it is more important for the Maternal program as it provides self-replacing females for producers' commercial flocks.

For the 2020 lambing, we actively organised matings to produce more Maternals with hoof colouration. This is a direct response to increased sales into wetter areas in Victoria and the perception that darker hooves are better in wet conditions.

The black hoof gene is already widespread in the background of our sheep flock due to its Suffolk ancestry. We have observed a much higher incidence of lambs with dark hooves in this year's lambing.

### PREFERED LAMBPLAN INDICES

(For more detailed information about ASBVs, go to the following website: https://www.sheepgenetics.org.au/getting-started/asbvs-and-indexes/)

For our **WHITE SUFFOLK CATALOGUE** we are listing the new **Terminal Carcase Production (TCP)** and **Lamb Eating Quality (LEQ)** index for each ram.

The **Terminal Carcase Production (TCP)** index is for a prime lamb production system where terminal sires are joined to ewes of a Merino/maternal breed or cross. The TCP index focuses on increasing weight and muscle while reducing carcase fat.

These are changes which contribute to higher lean meat yield. TCP also has emphasis on modest improvements in eating quality.

Typical trait changes for the TCP index include:

- increasing post weaning weight
- increasing carcase eye muscle depth
- decreasing carcase fat depth

- increasing dressing percentage
- increasing lean meat yield
- slightly improving eating quality.

Sheep with better eating quality will have higher ASBVs for intramuscular fat (more marbling) and lower ASBVs for shear force (better tenderness).

The **Lamb Eating Quality (LEQ)** index is for a prime lamb operation where terminal sires are joined to ewes of a Merino/maternal breed or cross in high rainfall and/or high input management systems where internal parasites may cause significant economic losses.

Producers who select this index are interested in improving the eating quality of their lambs to a greater degree than is possible with the TCP index. Growth and carcase traits will still improve, and inclusion of worm egg count will aid in control of internal parasites. Typical trait changes for the LEQ index include:

- increasing post weaning weight
- increasing eye muscle depth
- maintaining/small reduction in carcase fat
- increasing dressing percentage
- increasing lean meat yield
- large improvement in eating quality
- increasing resistance to worms.

Sheep with better eating quality will have higher ASBVs for intramuscular fat (more marbling) and lower ASBVs for shear force (better tenderness).

#### **INTRAMUSCULAR FAT (IMF) ASBV**

This is a measure of the chemical fat percentage in the loin muscle of a lamb and is often referred to as marbling. IMF has been shown to have a significant impact on the flavour, juiciness, tenderness and overall likeability of lamb.

Rams with more positive Intramuscular Fat (IMF) ASBVs produce progeny with higher levels of intramuscular fat.

#### **SHEAR FORCE FIVE DAYS (SHRF5) ASBV**

Shear force is a measure of the force or energy required to cut through the loin muscle of lamb after 5 days of ageing. The ASBV is reported in deviations of kilograms of force.

Rams with more negative SHRF5 ASBVs produce lambs with more tender meat.

For our **MATERNAL CATALOGUE**, we prefer the **Maternal Carcase Plus** index **(MCP+)**, as we believe it will generate a more profitable self-replacing lamb production system for producers. The **MCP+** index rewards a capped adult weight, increased early growth rate, increased eye muscle depth, better worm resistance and improving fertility. It only slightly rewards increasing clean fleece weight.

When selecting rams for breeding programs, buyers need to pay special attention to the ASBV's in order to choose the most appropriate ram for their individual enterprise. Indices are simply a guide for selection.

#### ADULT WEIGHT (AWT) ASBV

This year we are including the adult weight ASBV (AWT) in the catalogue, because we have been weighing our sheep at 12 months of age for quite a few years now. We are selecting against sheep which have a high adult weight ASBV.

We do not want to breed sheep which have a genetically large adult size as these types of sheep require much more feed and are much less efficient from a profitability perspective.

#### NUMBER of LAMBS WEANED (NLW) ASBV

This ASBV is expressed as a percentage. (NLW%) Rams with a more positive NLW% ASBV will generally sire daughters that wean a higher percentage of lambs. The accuracy of NLW% is not as high as other traits at this stage, and heritability is low, so producers should still use it as a guide only.

We recommend producers pay more attention to the Dam Efficiency Indices, because they are derived from data collected under commercial conditions at Mount Ronan.

## LAMBPLAN'S TRAIT LEADERS

Many of our sale rams are trait leaders. In other words, they are in the top 10% of the LAMBPLAN database for growth, leanness, muscling, or a combination of these traits. They are in the top 10% of all the rams of all breeds measured in the LAMBPLAN program in 2020 in Australia and New Zealand.

Trait leaders are noted in the comments for each ram and boxes are shaded to make them more visible.

## DAM MOTHERING SCORE

When the ewes are lambing at Mount Ronan, we birth weigh the lambs, tag them and record their pedigree information. Any positive or negative observations are recorded, and each ewe is given a mothering score.

This score is derived from a combination of characteristics. Lamb awareness, especially with multiples, quietness, and lack of concern for human intervention help derive the score.

All ewes are scored the same way, and the White Suffolk and Maternal ewes are run together in the same flocks. Consequently the mothering scores for dams of White Suffolk rams can be directly compared with those for Maternal rams.... unlike all the ASBVs.

An **MS10** ewe will stand next to you when you weigh and tag the lambs. She may sniff you and the lambs and even take time out to nip a bit of pasture while she waits for you to finish weighing and tagging the lambs. She is quite relaxed, but totally aware of the lambs at the same time.

An **MS9** ewe is pretty relaxed about the whole procedure, but only approaches to a distance of about one to three metres. She is completely aware of the lambs and returns immediately after you back away.

An **MS8** ewe walks back and forwards, or stands more than three metres away. She returns immediately when you back away, and is totally lamb aware during the whole procedure.

An **MS7** ewe may circle five to fifteen metres away from you, and is less lamb aware. She may go looking for her lambs near another ewe, but will return immediately once she has "regained her bearings". She will re-mother the lambs immediately.

**MS7** is the lowest scoring ewe we consider keeping in our flock, though she will perform extremely well in all commercial prime lamb operations. We don't find many ewes with score seven characteristics any more, even in the ewe lamb flock.

**Note:** If ewes have freshly lambed, they will tend to score higher because they are in a more protective mode. As time after lambing increases they will score lower, as they realise that the lambs are ready to move away with them from the birth site.

Each year a ewe's score may change slightly depending on circumstances.

#### But generally, an outstanding mother is always an outstanding mother.



An **MS10** ewe at lamb tagging time, 2013. This ewe produced natural triplets in 2014.

> One-year-old ewe lambs with twin newborns at Mount Ronan. World class mothering genetics in action. (26 August 2014)



#### **MATING EWE LAMBS**

Historically, our White Suffolk and Maternal rams have demonstrated easy birthing in ewe lamb flocks. However, we have provided recommendations in the catalogue for the White Suffolk rams because some introduced genetics may not be ideal for mating with ewe lambs.

We believe that virtually all of the Maternal rams are suitable for mating with ewe lambs. However, we have also provided recommendations for them in case producers have reservations about the size and lambing ability of their ewe lambs.

#### Note: White Suffolk and Maternal birthweight ASBVs cannot be directly compared.

## DAM EFFICIENCY INDEX

#### We have observed an improvement in dam efficiency within the flock over the last few years and attribute it to the continued identification of those ewes with outstanding commercial performance, and the maximal utilisation of their sons in the breeding program.

Each year we weigh and condition score our ewes at joining. At weaning time we can calculate the total kilograms of lamb weaned in each litter, and adjust for age to estimate the kilograms of lamb weaned at 100 days of age.

The reported dam efficiency index is an average of the dam's efficiency for all lambings recorded. It is a calculation of the total kilograms of lamb weaned (corrected to 100 days of lactation) relative to ewe joining weight (no correction for variation in condition score).

The dam efficiency index reported in this catalogue is calculated as follows:

#### average kg lamb weaned at 100 days average ewe joining weight

A part of the Dam Efficiency Index can be attributed to the performance of the sire, as the lamb's growth etc are a combination of the sire and the dam. However, in the future we expect to be able to isolate the genetics of dam efficiency in the same way that any other attribute is assessed via the LAMBPLAN program.

#### SOME THINGS TO REMEMBER ABOUT THIS RATING:

- Triplet-bearing ewes will score higher if they have the ability to raise all their lambs and grow them well in the first 100 days after lambing
- Twin bearers can wean 100% of their mating weight in 100 days if they are very efficient performers
- Single bearers will usually be unable to produce 100% of their own mating weight of lamb in 100 days. To do so would be a truly amazing performance
- Spring lambers often score lower because they have a shorter period on green feed. Despite lambing later, however, some ewe lambs may have a very high efficiency because of their immature body weight at the time of mating. Old ewes are also penalised because their production efficiency reduces with age.
- We are searching for ewes with a genetically reduced mating weight that have the ability to pump out maximum kilograms in the first 100 days after lambing. We are establishing the "sweet spot" for ideal mating weight genetics. This ongoing research in the Mount Ronan breeding program will deliver us valuable SRW (Standard Reference Weight) information



## **CONTINUING INITIATIVES IN 2021**

#### FLEECE MEASUREMENT and INCLUSION OF SELECTED MERINO GENETICS

We are continuing to wool test our Maternal sheep, employing the services of *Micron Man* in order to establish the wool genetics of our Maternal sheep.

Several years of wool testing of our Maternal sheep has demonstrated that they are up to 4 microns finer than most other composite maternal types. We wish to maintain this advantage.

The MCP+ index caters for wool attributes, so the incorporation of Merino genetics into part of the Maternal flock will not have a detrimental effect on data quality relating to carcase characteristics and we are confident that we can maintain the commercial prime lamb performance of the young sheep we are offering.

The price advantage achieved by restricting fibre micron is obvious, especially in times of higher wool prices.

Our main emphasis, however, continues to be on the provision of high, early-growth genetics for maximum prime lamb profitability. Modern Mount Ronan White Suffolk and Maternal sheep are the result of selection for constitutional strength, muscling, lambing ease, mothering ability, and high-profit lamb production over the past 52 years.



Weighing Maternal ram fleeces for analysis and wool testing.



A Merino infused Mount Ronan Maternal waiting his turn to be shorn, 21 August.

#### MURDOCH UNIVERSITY RESEARCH PROJECT

Mount Ronan was involved in a project during 2019 which investigated embryo loss in young ewes and ewe lambs between the time of pregnancy scanning and lamb birth.

The research team regularly collected blood samples and measured body weight, condition score and pregnancy status. Dead lambs were collected for autopsy, and full pedigrees, birth weights etc were recorded.

Mount Ronan contributed 203 ewe lambs to the project, which also involved other breeding flocks around Australia. The Murdoch project will be continued for the next 3 years.

