MARCH 2023 | ISSUE #68

ASHEEP NEWS

asheep Esperance

ASHEEP Pasture Variety Trials 2022 Results

Chad Hall & Rachel Minett, South Coastal Agencies

The following report has been authored by South Coastal Agencies (SCA) who were engaged by ASHEEP to monitor, evaluate and report on our Pasture Variety Trial farmer demonstration sites in 2022. ASHEEP would like to give thanks to the team at SCA for their support of this project, as well as to the project steering committee, and site hosts.

In April 2022, South Coastal Agencies (SCA) accepted the opportunity to participate in what would be the third year of the ASHEEP Pasture Variety Trials, a Meat & Livestock Australia (MLA) Producer Demonstration Site (PDS) project. Previously managed by South East Agronomy Research (SEAR), plot-scale pasture variety trials were established in various rainfall and soil zones within the Esperance region. The objective of years one and two of the trial was to determine suitable varieties to be trialled in paddock scale grazing situations while assessing their persistence to re-establish over the coming years of the trial.

2022 being the third of the five-year trial, SCA worked with sheep and cattle producers to assess pasture performance in several different management systems, soil types, and rainfall zones. The objective was to evaluate the pasture performance and stocking rate potential as well as the cost of production in order to make an economic analysis of each situation. The areas were split into rainfall zones, high (+550mm), medium (350mm), and low (<350mm) and appropriate pasture varieties were chosen for each zone (see image 1 on following page).

Continued over page.

Image: Epasco Demo Site 21/09/22 Forester Oats 30kg p/h, Abundant Ryegrass 8kg p/h, Resina Vetch 25kg p/h.

Highlights

Continued.

Method

Each site had three pasture grazing cages constructed to allow the producer to graze the paddock with livestock (sheep or cattle) whilst still allowing monitoring of the pasture growth. Soil samples were collected from each paddock to develop an understanding of each site's soil constraints and limitations. On installation of the cages, visual observations were noted, such as pasture composition and establishment, as well as the presence of weeds and other notable pests (mice, diamondback moth, mites). With consistent and widespread opening rains throughout the district, it was determined that the 'break of the season' would be set for the 14th of April 2022 for all sites.

Ten weeks and sixteen weeks after the break of the season, pasture samples were taken from a quadrant and sent away for analysis. Each pasture sample was weighed to determine the wet weight and available biomass to determine kilograms of dry matter per ha (Kg/DM/Ha). The pasture cuts were conducted to simulate livestock grazing; each quadrant was cut evenly to replicate heavy stock grazing, and regrowth was monitored. The presence of weeds, insects, disease, and pasture composition was observed and noted.

PASTURE MIXES IN TRIAL

Low Rainfall Zone (LRZ) – 350mm

- **Cascade Site 3:** Barloo and RM4 Vetch
- **Salmon Gums Site:** Leafmore Grazing Brassica

Medium Rainfall Zone (MRZ)– 450mm

- **Cascade Site 1:** Leafmore Grazing Brassica, Santorini, and Margarita Serradella
- **Cascade Site 2:** RM4 Vetch
- **Scaddan 1:** RM4 Vetch
- **Condingup Site 1:** Forester Oats, Planet Barley Sown into a Sub-Clover stand
- **Condingup Site 3:** Abundant Ryegrass, Forster Oats and Rasina Vetch

High Rainfall Zone (HRZ) – 550mm

- **Neridup Site 1:** Forester Oat, Planet Barley into a sub clover stand
- **Boyatup Site 1:** Pascal Wheat, Triticale, Illabo Wheat, Planet Barley, Abundant Ryegrass, Bartolo Bladder Clover, Paradana Balansa, Eliza Serradella and RM4 Vetch
- **Neridup Site 2:** Illabo Wheat
- **Neridup Site 3:** Planet Barley
- **Condingup Site 4:** Forester Oats and Planet Barley

2022 PROJECT PARTNERS

asheep Esperance

South Coastal Agencies

mla MEAT & LIVESTOCK AUSTRALIA

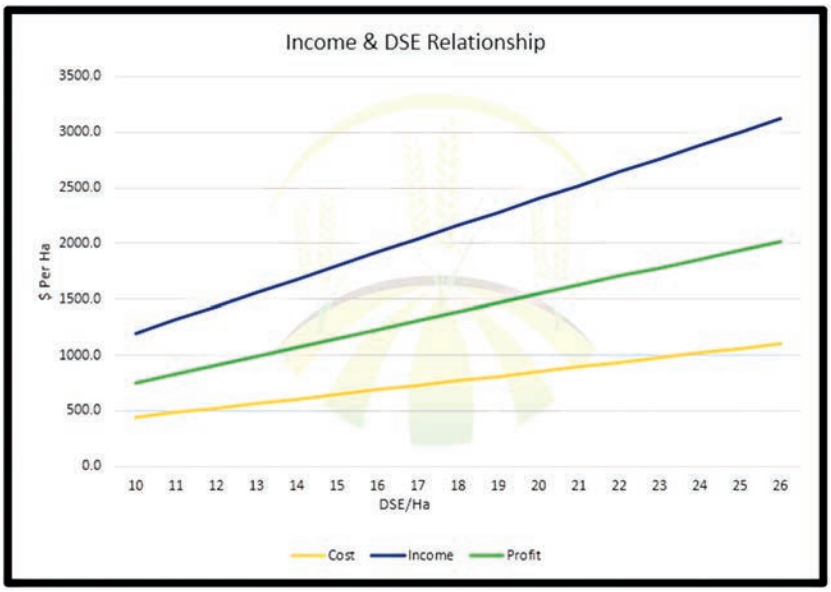
Image 1: Pasture Rainfall Zones by Site

Economic Analysis

An economic analysis was conducted by comparing the number of dry stock equivalent (DSE) that a pasture could maintain over the period the samples were taken (break of the season to sixteen weeks). It is important to note that all data in this report is limited to information collected between the break of the season and sixteen weeks post-break only; this report does not consider pasture biomass or quality beyond this point. It was determined that the best way to compare pastures in differing rainfall environments was to analyse the carrying capacity as DSE per one hundred millimetres of rainfall. The grower inputs were then considered to calculate a cost per ha and a cost per DSE. The input cost per DSE is relevant as it considers carrying capacity to better analyse the direct cost of feeding a DSE. Finally, the value of nitrogen fixation through legume and rhizobia symbiosis was calculated by assuming twenty units of N is fixed per tonne of biomass produced. The value per unit of N was based on a urea price of $920/t with an analysis of 46% N, equating to $2/unit of N.

Stocking Rate Drives Profitability

When measuring the effects of stocking rate on profitability, three aspects were considered 1. Fixed costs: these are costs to the business that won't change regardless of stocking rate, for example, pasture, lease/capital costs. 2. Variable costs: The total sum of this amount will change depending on the number of livestock; examples are contract labour, animal health products and supplementary feed. 3. Sales: All income generated from the enterprise, such as wool and livestock sales. While there is a linear increase in all three aspects; cost, income, and profit, as the DSE/ha increases, the gap between each widens. This is because the costs increase at a slower rate than income and profit due to the dilution effect of the stocking rate on the fixed costs. This illustrates the importance of the stocking rate. The below chart doesn't claim to consider all the costs or income that a livestock enterprise might incur but aims to illustrate the effect that the stocking rate has on the relationship between profit and cost. The biggest limiting factor to the stocking rate is feed availability. This is why the report has measured pasture value in DSE carrying capacity. It's important to consider other factors that may limit the stocking rates' potential, such as soil fragility or pasture seed set.



Fixed Costs		Per ha ($)
Lease	$	100.00
Pasture Seeding	$	140.00
Pasture Manipulation	$	25.00
Total Fixed Costs/Ha	$	265.00

Variable Costs		Per DSE ($)
Animal Health	$	7.00
Supplementary Feeding	$	20.00
Contract Labour	$	15.00
Total Variable Costs/DSE	$	42.00

Income		Per DSE ($)
Livestock Sold	$	70.00
Wool Sold	$	50.00
Total Income/DSE	$	120.00

NRI Analysis

An NRI analysis measures feed quality to ensure that the feed is adequate for the livestock grazing a pasture. Considerations that are used in this report are that a single DSE requires 8.3 megajoules of energy (ME) and at least 9% crude protein (CP) per kilogram of dry matter consumed to maintain condition (pregnant sheep and lambs require 15% CP). All figures used in this report are based on Dry Matter measurements. A description of all measurements has been included below.

- **Moisture and Dry Matter (DM%)** – These two figures add up to 100% and are the inverse of each other. They are the percentage of moisture removed to the percentage of DM remaining.
- **Crude Protein (CP%)** – The most used measure of proteins available from the feed source. CP% is calculated from the nitrogen content in the plant material.
- **Acid Detergent Fibre (ADF)** – ADF measures less digestible fibres, cellulose, and lignin. This can be used to measure digestibility or how much of the DM is useful. The higher the ADF content, the lower the digestibility.
- **Neutral Detergent Fibre (NDF)** – NDF is a prediction of all digestible and indigestible fibre contained by the feedstuffs. This encompasses all the ADF but includes the highly digestible fibres, hemicellulose, and pectin. Feeds with NDF levels that are too high will reduce dry matter intake, and too low will reduce roughage and digestibility.
- **Lignin** –Lignin is a component of both NDF and ADF that is entirely indigestible. It acts to bind up nutrients that would otherwise be available to the animal. Lignin aids in plant stem rigidity by binding cells to the cell wall; the plant uses this mechanism to strengthen its stem in preparation for reproduction. Abiotic stresses to the plant, such as water, heat, and nutritional stress, will cause lignin biosynthesis, which can prematurely reduce the feed quality.
- **Metabolizable Energy (ME)** – This is the measure of ME/kg of DM and is a simple calculation of gross energy minus energy losses in faeces, urine, and gases.
- **Pasture Growth Rates (PGR)** – PGR is the amount of feed grown per hectare per day, measured in kilograms of DM/ha/day over a set period.
- **Dry Stock Equivalent per Hectare (DSE/ha)** – This is the amount of DSE that can be stocked per hectare based on the nutritional requirements above.
- **DSE/100mm Rainfall** – This is used to roughly compare pastures between differing rainfall conditions by dividing the stocking rate by the rainfall for the period. Note that this method only controls one of many variables.
- **Total DM/Ha** – All the dry matter measured over the period.
- **PGR AVE** – The average pasture growth rate (kgDM/ha/day) over the period of measurements.
- **DSE/Ha 0- 16 Weeks** – The amount of DSE the dry matter could feed over the measurements.
- **DSE/100mm 0-16 Weeks** – DSE/ha 0-16 weeks divided by each hundred millimetres of rainfall over the measurement period.

Other Definitions

- **Growing Season Rainfall** – The rainfall collected from the 1st of January to the 1st of September; this was when the final pasture samples were taken.
- **Dry Stock Equivalent (DSE)** – One 50kg wether maintaining condition requires 1kg of dry matter containing 8.3 megajoules of metabolisable energy. This model allows for 80% pasture utilisation with 20% wastage due to trampling and fouling.

Continued over page.

2022 Project Results

Of the twelve sites followed in 2022, the project scope allowed six sites to be selected for deeper review. We have therefore chosen two sites in each rainfall zone and given further insight into the data collected by providing agronomic commentary and performance review. The report then goes on to compare results more broadly across sites.

Cascade Site 3

	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	86.8	13.2	32.1	23.8	18.7	4.47	72.6	11.64	2453	40.21	32.17	10.77	11980	92.87	69.32	28.46
16 Week Cut	73.6	26.4	21.9	41.3	43.5	7.55	50.9	7.6	9527	140.10	102.64	34.35				

- **Grower:** Simeon Roberts
- **Variety:** Barloo and RM4 Vetch
- **Rainfall Zone:** LRZ
- **Annual Rainfall 2022:** 420mm
- **1st Jan – 1st Sept 2022 Rainfall:** 298mm
- **Soil PH CaCl2:** 5.3

Excellent seasonal rainfall was experienced in North Cascade, setting these two varieties up to express their full genetic potential. Vetch has been a good fit for the Roberts' program. For some years now, RM4 has been used as a break crop and risk mitigation strategy in their canola cereal rotation. The added benefit of nitrogen fixation reduced their reliance on expensive inorganic fertilisers. While RM4 has been the mainstay variety for the area, Barloo was included in this mix for its early vigour and shorter days to grazing in an attempt to bridge the Autumn feed gap. While the Barloo did provide better early biomass, it was subjectively noted that it also elongated and turned reproductive earlier. This caused an earlier-than-anticipated botrytis infection increasing the reliance on fungicide treatments. The early maturation was also reflected in the NRI results, as MJME dropped below the required level to maintain 1 DSE, and the lignin and ADF levels increased, indicating the locking up of carbohydrates in the cell wall of the plant. While measurements weren't taken of each variety individually to objectively determine the source of the high lignin levels, this report hypothesises that the RM4 on its own would have maintained higher feed quality for longer, as is evident in other RM4 cuts within this trial. Despite the overall reduced quality, these varieties produced a massive 11,980kg of biomass per ha over these sixteen weeks. The DSE rating was adjusted for the period between the 10 and 16-week cuts from 1kg/DSE/Day to 1.092kg/DSE/Day to ensure the ME requirements were met. This level of feed consumption is still well within the parameters of a DSE's feed consumption ability. With these adjustments considered, this pasture could maintain 69.32 DSE/ha and 28.46 DSE/100mm of rainfall. The cost to establish this pasture was $116/ha but only $1.68/DSE. However, the icing on the cake for the Roberts was the 239 units of nitrogen estimated to have been fixed, producing $479/ ha of nitrogen saving in the subsequent crops.

Input Costs

Seeding	Rate/Ha	$/kg	Cost/ha	Cost/DSE
RM4 Vetch Seed	12.5	$ 2.00	$ 25.00	$ 0.36
Barloo Vetch Seed	12.5	$ 2.00	$ 25.00	$ 0.36
Operating Cost	1	$ 45.00	$ 45.00	$ 0.65
			$ 95.00	$ 1.37

Spray	Rate/Ha	Cost/L	Cost/ha	Cost/DSE
Clethodim 240gai	0.3	$ 19.95	$ 5.99	$ 0.09
Targa 100gia	0.1	$ 22.40	$ 2.24	$ 0.03
Alpha Cypermethrin 100gai	0.5	$ 6.00	$ 3.00	$ 0.04
Operating Cost	1	$ 10.00	$ 10.00	$ 0.14
			$ 21.23	**$ 0.31**

Cost of Pasture Production	
Total Cost/ha	$ 116.23
Total Cost/ DSE	$ 1.68

Nitrogen Fixation

Units Fixed (N)	Unit of N ($)	N Fixed/Ha ($)	N Fixed/DSE ($)
239.6	$ 2.00	$ 479.20	$ 6.91

Salmon Gums Site

	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	83.7	16.3	30.6	15.6	14.2	3.15	69.6	11.09	1480	24.26	19.41	4.83	2006	14.03	11.22	3.49
16 Week Cut	71.5	28.5	21.3	19.7	21.8	4.54	65.5	10.32	526	6.41	5.13	1.28				

- **Grower:** Peter McCrea
- **Variety:** Leafmore Grazing Brassica
- **Rainfall Zone:** LRZ
- **Annual Rainfall 2022:** 401mm
- **1st Jan – 1st Sept 2022 Rainfall:** 248mm
- **Seeding Date:** 17th April

Salmon Gums experienced good opening rain and higher-than-average annual rainfall in 2022, providing a good opportunity for Leafmore to be assessed in the area. The dry matter measurements indicate good early growth rates with short days to grazing, although pasture growth rates slowed between the 10 and 16-week cuts. The NRI results show that the CP% and ME are higher than is required for 1 DSE. UAN was applied in August at a rate of 60L/ha to encourage biomass growth. An N-rich strip was applied at 100L/ha, but no visual difference between the two treatments could be noticed. Later in the season, diamondback moth was detected and caused some damage. However, the decision was made not to apply an insecticide as there was a lack of moisture, and the season appeared to be coming to an end. In hindsight, there was further rainfall which would have warranted an insecticide to be applied. The theoretical stocking rate over the period was 11.12 DSE/ha or 3.49 DSE/ha/100mm of rainfall. The cost of pasture production was $237.85/ha or $21.19/DSE.

Input Costs					
Seeding	Rate/Ha	$/kg	Cost/ha	Cost/DSE	
Leafmore Brasica Seed Brass	1.8	$ 2.00	$ 3.60	$	0.32
Agstar Extra	60	$ 1.40	$ 84.00	$	7.49
UAN	60	$ 1.20	$ 72.00	$	6.42
Operating Cost	1	$ 45.00	$ 45.00	$	4.01
			$ 204.60	**$**	**18.23**

Spray	Rate/Ha	Cost/L	Cost/ha	Cost/DSE	
Treflan	2	$ 6.90	$ 13.80	$	1.23
Paraquat	1.5	$ 6.30	$ 9.45	$	0.84
Operating Cost	1	$ 10.00	$ 10.00	$	0.89
			$ 33.25	**$**	**2.96**

Cost of Pasture Production		
Total Cost/ha	$	237.85
Total Cost/ DSE	$	21.19

Cascade Site 1

	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	87.4	12.6	20.2	20.3	22.6	3	70.0	11.15	2320	38.03	30.43	9.56	**3547**	**27.50**	**22.00**	**8.64**
16 Week Cut	81.4	18.6	28	31.1	30.6	5.43	62.2	9.7	1227	18.04	14.44	4.54				

- **Grower:** Mark and Liv Walter
- **Variety:** Leafmore Grazing Brassica, Santorini and Margarita
- **Rainfall Zone:** MRZ
- **Annual Rainfall 2022:** 494mm
- **1st Jan – 1st Sept 2022 Rainfall:** 318mm
- **Soil PH CaCl2:** 5.3

Input Costs					
Seeding	Rate/Ha	$/kg	Cost/ha	Cost/DSE	
Leafmore Seed	2	$ 14.00	$ 28.00	$	1.27
Santorini Serradella Seed	2	$ 5.00	$ 10.00	$	0.45
Maragrita Serradella Pod	10	$ 5.10	$ 51.00	$	2.32
Alosca Ryzobia Group G/S	5	$ 2.00	$ 10.00	$	0.45
Operating cost	1	$ 45.00	$ 45.00	$	2.05
			$ 144.00	**$**	**6.55**

Spray	Rate/Ha	Cost/L	Cost/ha	Cost/DSE	
Clethodim 360gai	0.3	$ 19.95	$ 5.99	$	0.27
Factor	0.1	$ 22.40	$ 2.24	$	0.10
Hasten	0.5	$ 6.00	$ 3.00	$	0.14
SOA	0.5	$ 1.00	$ 0.50	$	0.02
Operating Cost	1	$ 10.00	$ 10.00	$	0.45
			$ 21.73	**$**	**0.99**

Cost of Pasture Production		
Total Cost/ha	$	165.73
Total Cost/ DSE	$	7.53

The pasture NRI test results for Cascade site 1 reveal that, in this case, this pasture mix is sufficient to maintain a DSE at the expected intake of 1kg of dry matter per head per day. Crude protein is well in excess of ruminant requirements (9-15% CP/kgDM) in both the 10 and 16-week cuts. While ME declines between the 10 and 16-week cuts, it is still sufficient to support a DSE.

Continued over page.

Pasture DM/ha also decreased between the two cuts, with the lignin levels increasing, which is indicative of the Leafmore becoming reproductive. This variety would appear to be useful as an option for winter biomass production as it produces good early bulk when the season permits. However, its feed value later in the season will be determined by plant nutrition, insect control and grazing management. It was subjectively noted that the Santorini and Margarita serradellas produced less biomass, particularly early in the season. However, serradella was included for its late-season feed quality and its regenerative persistence in subsequent years. Unfortunately, the scope of the trial wasn't positioned to measure this as only a 10 and 16-week cut was allowed for. Clethodim and Factor were used to control ryegrass and volunteer cereals to prepare for a 2023 wheat crop. While the two serradella varieties nodulated well, a figure for nitrogen fixation could not be estimated for economic analysis as the biomass of Serradella could not be separated from the Leafmore to be measured on its own.

Condingup Site 3

	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	86.1	13.9	24.5	25.8	31.4	3.72	59.3	9.71	1367	15.88	17.93	3.33	4073	31.57	25.26	5.86
16 Week Cut	72.5	27.5	16.2	20.6	37.5	1.57	71.1	11.37	2706	39.79	31.84	5.91				

- **Grower:** Nick Ruddenklau
- **Variety:** Abundant Rye Grass – Forester Oats – Rasina Vetch
- **Rainfall Zone:** MRZ
- **Annual Rainfall 2022:** 805mm
- **1st Jan – 1st Sept 2022 Rainfall:** 539mm
- **Soil PH CaCl2:** 4.9

The Condingup 3 site, like other sites, received higher-than-average rainfall. However, most of it came later in the season, which, along with cold conditions, contributed to a slower start than some of the other trial sites. The 16-week samples had sufficient protein and energy, low lignin levels, and low ADF, confirming that this pasture is a high-quality feed source. It would have been very interesting to continue to measure biomass and NRI test this pasture beyond the 16-week mark to capture its full potential, as this is where this pasture did most of its heavy lifting. Nick reported that the paddock went on to produce 18t (wet)/ha of silage followed by another hay cut later in the season of 2.2t/ha. If hay is valued at $200/t and silage at $80/t, this paddock would have produced $1880/ha of feed. All while holding 680 maiden ewes for three and a half weeks in July, then restocking after the hay was cut (from half the paddock only) in mid-December with 1200 maidens that remain on the paddock as I write this in early February 2023. Over this period, the maidens required a flushing ration prior to joining but have not required supplementation beyond this. So, to date, this paddock has maintained 23.5 DSE/ha for 73 days while producing $1880/ha worth of feed to be used through the summer.

Input Costs					
Seeding	Rate/Ha	$/kg	Cost/ha	Cost/DSE	
Abundant Rye Grass	10	$ 5.45	$ 54.50	$ 3.25	
Forester Oats	30	$ 1.50	$ 45.00	$ 2.68	
Rasina Vetch	20	$ 2.26	$ 45.20	$ 2.69	
MAP Fertilizer	50	$ 1.30	$ 65.00	$ 3.87	
Operating Cost	1	$ 45.00	$ 45.00	$ 2.68	
			$ 254.70	**$ 15.18**	

Spreading	Rate/Ha	$/kg	Cost/ha	Cost/DSE
Urea	250	0.92	$ 230.00	$ 13.71
Operating Cost	1	10	$ 10.00	$ 0.60
			$ 240.00	**$ 14.30**

Spray	Rate/Ha	Cost/L	Cost/ha	Cost/DSE
Glyphosate 450gai	1.7	$ 9.50	$ 16.15	$ 0.96
Ester 680gai	0.5	$ 8.50	$ 4.25	$ 0.25
Operating Cost	1	$ 10.00	$ 10.00	$ 0.60
			$ 30.40	**$ 1.81**

Cost of Pasture Production	
Total Cost/ha	$ 285.10
Total Cost/ DSE	$ 16.99

Image below: Condingup Site 3

Boyatup Site 1

- **Grower:** Ryan Willing
- **Variety:** Pascal Wheat – Triticale – Illabo Wheat – Planet Barley – Abundant Ryegrass – Bladder Clover – Balansa Clover – Eliza Serradella – RM4 Vetch
- **Rainfall Zone:** HRZ
- **Annual Rainfall 2022:** 908mm
- **1st Jan – 1st Sept 2022 Rainfall:** 609mm
- **Soil PH CaCl2:** 5.6

Continued over page.

	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	87.8	12.5	25.4	26.5	40.6	2.14	68	10.79	2053	33.66	26.92	4.42	4741	36.75	29.40	6.03
16 Week Cut	86	14	25.8	24.1	35.3	1.04	70.2	11.2	2688	39.53	31.62	5.19				

The Boyatup site was sprayed with Glyphosate and Outright adjuvant, then dry-sown right before a heavier-than-expected rainfall event (150mm) that caused the widespread seed to burst and capeweed germination. Ryan saw this as an opportunity to control the capeweed and salvage his pasture for the year. Another pass of glyphosate and wetter was applied, followed by Paraquat and Alpha-Cypermethrin. Then the above seed mix was planted into moisture. This mix has been useful for Ryan in the past, noting that his stocking rates on biodiverse pastures like these have been greatly improved. Unfortunately, 2022 continued to be a very wet year for this site, causing the legumes to struggle and the ryegrass to dominate. While some could see this as disappointing, it also illustrates the strength of biodiversity in risk mitigation, particularly in high-rainfall areas. When weather conditions allow, Ryan considers the mix a two-year investment. He explains that the normal rotation would be two years in pasture followed by canola, cereal, then back to pasture, expecting that the pasture following the crop usually requires half the legume rate as the seed bank builds up. Despite the unusually wet season, this pasture performed well, and its stocking rate assisted in diluting the costs associated with reseeding. Unfortunately, no nitrogen fixation could be assumed because of poor legume germination. The quality of this pasture is evident from the NRI results, which show consistency between the 10 and 16-week cuts. In fact, the ME increased slightly while the Lignin and NDF decreased slightly, which is the opposite of what you would expect to see. This could be because the Abundant Ryegrass became dominant, and other shorter seasoned varieties were diluted. The pasture growth rate over the period is considered high for this time of year, averaging 36.75kg/ha/day.

Above image & table right: Boyatup Site 1

Input Costs				
Seeding	Rate/Ha	$/kg	Cost/ha	Cost/DSE
Pascal Wheat	20	$ 0.35	$ 7.00	$ 0.24
Triticale	20	$ 1.50	$ 30.00	$ 1.02
Illabo Wheat	20	$ 0.35	$ 7.00	$ 0.24
Planet Barley	20	$ 0.35	$ 7.00	$ 0.24
Abundant Ryegrass	8	$ 4.10	$ 32.80	$ 1.12
Bartolo Bladder Clover	2.5	$ 6.00	$ 15.00	$ 0.51
Paradana Balansa Clover	0.3	$ 6.00	$ 1.80	$ 0.06
Eliza Serradella	10	$ 2.60	$ 26.00	$ 0.88
RM4 Vetch	10	$ 2.00	$ 20.00	$ 0.68
MAP Fertiliser	70	$ 1.20	$ 84.00	$ 2.86
Peat Inoculant	0.4	$ 40.00	$ 16.00	$ 0.54
Operating Cost	1	$ 45.00	$ 45.00	$ 1.53
			$ 291.60	$ 9.92

Spray	Rate/Ha	Cost/L	Cost/ha	Cost/DSE
Glyphosate 450gai	1.7	$ 9.50	$ 16.15	$ 0.55
Alpher Cypermethrin	0.1	$ 7.00	$ 0.70	$ 0.02
Outright Adjuvant	0.8	$ 6.95	$ 5.56	$ 0.19
Paraquat 360gai	0.28	$ 7.40	$ 2.07	$ 0.07
Glyphosate 450gai	0.5	$ 9.50	$ 4.75	$ 0.16
Wetter 1000	0.24		$ -	$ -
Operating Cost	3	$ 10.00	$ 30.00	$ 1.02
			$ 59.23	$ 2.01

Spread	Rate/Ha	Cost/kg	Cost/ha	Cost/DSE
NS61	80	1.1	$ 88.00	$ 2.99
Operating Cost	1	5	$ 5.00	$ 0.17
			$ 93.00	$ 3.16

Cost of Pasture Production	
Total Cost/ha	$ 443.83
Total Cost/ DSE	$ 15.10

Neridup Site 3

- **Grower:** Ryan Willing
- **Variety:** Planet Barley
- **Rainfall Zone:** HRZ
- **Annual Rainfall 2022:** 805mm
- **1st Jan – 1st Sept 2022 Rainfall:** 539mm
- **Soil PH CaCl2:** 4.8

Table below: Neridup Site 3

	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	84.2	15.8	34.6	23.4	34.1	2.51	69.7	11.11	1427	23.39	18.71	3.47	6258	48.51	38.81	9.00
16 Week Cut	75.6	24.4	22.1	27.7	49.3	2.71	67.8	10.75	4831	71.04	56.84	10.54				

Planet barley was used in this case for its early feed value to harvest the grain at the end of the season. While this variety is known for its high grain yield potential, its propensity to grow a lot of early biomasses creates opportunities for mix enterprise farmers to defer pasture grazing through crop grazing. The farm on which this was planted had serradella-dominant pastures that needed time to build an adequate feed wedge before stocking. Toward the end of the season, it was evident that a lot of ryegrass was presumably stirred up by the grazing process. Ryan was able to get some late control on this by well-timed desiccation. The NRI result confirms that the feed quality is sufficient to maintain the body condition of a DSE at the expected daily intake of 1kg per DSE, and the DM was adequate to stock from early in the season.

Continued over page.

Continued.

While this economic model looks at the grazing scenario only and attributes all costs to the DSE, it's interesting to note that this crop grew a 3.3 t barley crop while providing a solution to the autumn feed gap.

Input Costs				
Seeding	Rate/Ha	$/kg	Cost/ha	Cost/DSE
Planet Barley	100	$ 0.35	$ 35.00	$ 0.90
MAP Fertilier	75	$ 1.20	$ 90.00	$ 2.32
NS 6:1	75	$ 0.78	$ 58.50	$ 1.51
Operating Cost	1	$ 45.00	$ 45.00	$ 1.16
			$ 228.50	**$ 5.89**

Pre Emergent Spray	Rate/Ha	Cost/L	Cost/ha	Cost/DSE
Trifluralin	2	$ 6.30	$ 12.60	$ 0.32
Boxer Gold	2.5	$ 10.60	$ 26.50	$ 0.68
Operating Cost	1	$ 10.00	$ 10.00	$ 0.26
			$ 49.10	**$ 1.27**

Urea Spreading 1	Rate/Ha	$/kg	Cost/ha	Cost/DSE
Urea	75	0.92	$ 69.00	**$ 1.78**
Operating Cost	1	10	$ 10.00	**$ 0.26**
			$ 79.00	**$ 2.04**

Broad Leaf Selective 1	Rate/Ha	Cost/L	Cost/ha	Cost/DSE
Jaguar	1	$ 13.50	$ 13.50	$ 0.35
Operating Cost	1	$ 10.00	$ 10.00	$ 0.26
			$ 23.50	**$ 0.61**

Broadleaf Selective 2	Rate/Ha	Cost/L	Cost/ha	Cost/DSE
Bronco	1	$ 9.50	$ 9.50	$ 0.24
Operating Cost	1	$ 10.00	$ 10.00	$ 0.26
			$ 19.50	**$ 0.50**

Urea Spreading 2	Rate/Ha	$/kg	Cost/ha	Cost/DSE
Urea	75	0.92	$ 69.00	**$ 1.78**
Operating Cost	1	10	$ 10.00	**$ 0.26**
			$ 79.00	**$ 2.04**

Pre Emergent Spray	Rate/Ha	Cost/L	Cost/ha	Cost/DSE
Top Notch Fungiced	0.4	$ 56.00	$ 22.40	$ 0.58
Transform	0.05	$ 365.00	$ 18.25	$ 0.47
Wetter 1000	0.24	$ 3.95	$ 0.95	$ 0.02
Operating Cost	1	$ 10.00	$ 10.00	$ 0.26
			$ 51.60	**$ 1.33**

Total Cost/ha	$ 530.20
Total Cost/ DSE	$ 13.66

Project Summary

Low Rainfall Zone (MRZ) ~ 350 Average Annual Rainfall

	Grower	Location	Pasture variety	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	Roberts	Cascade Site 3	Barloo & RM4 vetch	86.8	13.2	32.1	23.8	18.7	4.47	72.6	11.64	2453	40.21	32.17	10.77	11980	92.87	69.32	28.46
16 Week Cut	Roberts	Cascade Site 3	Barloo & RM4 vetch	73.6	26.4	21.9	41.3	43.5	7.55	50.9	7.6	9527	140.10	102.64	34.35				
10 Week Cut	McCrea	Salmon Gums	Leafmore Grazing Brasica	83.7	16.3	30.6	15.6	14.2	3.15	69.6	11.09	1480	24.26	19.41	4.83	2006	14.03	11.22	3.49
16 Week Cut	McCrea	Salmon Gums	Leafmore Grazing Brasica	71.5	28.5	21.3	19.7	21.8	4.54	65.5	10.32	526	6.41	5.13	1.28				

Medium Rainfall Zone (MRZ) ~ 450mm Average Annual Rainfall

	Grower	Location	Pasture variety	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	Walters	Cascade Site 1	Leafmore	87.4	12.6	20.2	20.3	22.6	3	70.0	11.15	2320	38.03	30.43	9.56	**3547**	**27.50**	**22.00**	**8.64**
16 Week Cut	Walters	Cascade Site 1	Leafmore	81.4	18.6	28	31.1	30.6	5.43	62.2	9.7	1227	18.04	14.44	4.54				
10 Week Cut	Walters	Cascade Site 2	RM4 Vetch	87.0	13.0	30.8	18.9	12.6	3.86	73.9	11.89	1026	16.82	13.46	4.23	5850	45.35	36.28	14.25
16 Week Cut	Walters	Cascade Site 2	RM4 Vetch	86.6	13.4	35.3	27.6	26.5	3.85	66	10.42	4824	70.94	56.75	17.84				
10 Week Cut	Epasco	Condingup 1	Oats, Barley, sub clover	86	14.2	30.1	23.8	26.1	3.22	70.6	11.26	3366	55.18	44.14	8.19	4693	36.38	29.10	6.75
16 Week Cut	Epasco	Condingup 1	Oats, Barley, sub clover	83.8	16	28.3	24.8	42.8	1.74	69.2	11.01	1327	19.51	15.61	2.90				
10 Week Cut	Epasco	Condingup Site 3	Pasture Mix 1*	86.1	13.9	24.5	25.8	31.4	3.72	59.3	9.71	1367	15.88	17.93	3.33	4073	31.57	25.26	5.86
16 Week Cut	Epasco	Condingup Site 3	Pasture Mix 1*	72.5	27.5	16.2	20.6	37.5	1.57	71.1	11.37	2706	39.79	31.84	5.91				
10 Week Cut	Wattledale	Scaddan Site 1	RM4 Vetch	79.2	20.8	34.1	20.4	21.2	2.97	73.1	11.74	500	8.20	6.56	1.68	2514	19.49	15.59	4.99
16 Week Cut	Wattledale	Scaddan Site 1	RM4 Vetch	67.9	32.1	16.1	29.2	33.9	4.36	59.6	9.21	2014	29.62	23.69	6.07				

* Pasture Mix 1 consists of: Abundant Ryegrass, Forrester Oats & Rasina Vetch

High Rainfall Zone (HRZ) ~ 550mm Average Annual Rainfall

	Grower	Location	Pasture variety	Moisture	DM %	Crude Protein	ADF	NDF	Lignin	TDN	ME	DM/ha	PGR	DSE/ha	DSE/ 100mm rainfall	Total DM/Ha (Kg)	PGR AVE	DSE/Ha	DSE/ 100mm 0-16 Week
10 Week Cut	Epasco	Condingup Site 4	Oats, Barley	***Insufficient biomass to measure***												1248	9.67	7.74	1.79
16 Week Cut	Epasco	Condingup Site 4	Oats, Barley	86	14	24.5	25.8	31.4	3.72	59.3	9.17	1248	9.67	7.74	1.44				
10 Week Cut	Epasco	Neridup Site 1	Planet Barley & Forester Oats	***Insufficient biomass to measure***												640	4.96	3.97	1.24
16 Week Cut	Epasco	Neridup Site 1	Planet Barley & Forester Oats	86.1	13.9	18.7	24.8	36.5	7.71	69.3	11.03	640	9.41	7.53	1.89				
10 Week Cut	Willing	Neridup Site 2	Illabo Wheat	86.9	13.1	31.4	21.6	34	2.21	73.1	11.73	996	16.33	13.06	2.42	4098	31.77	25.41	5.89
16 Week Cut	Willing	Neridup Site 2	Illabo Wheat	86	14	24.5	26.6	47.2	2.36	68.6	10.89	3102	45.62	36.49	6.77				
10 Week Cut	Willing	Neridup Site 3	Planet Barley	84.2	15.8	34.6	23.4	34.1	2.51	69.7	11.11	1427	23.39	18.71	3.47	6258	48.51	38.81	9.00
16 Week Cut	Willing	Neridup Site 3	Planet barley	75.6	24.4	22.1	27.7	49.3	2.71	67.8	10.75	4831	71.04	56.84	10.54				
10 Week Cut	Willing	Boyatup Site 1	Pasture Mix 2**	87.8	12.5	25.4	26.5	40.6	2.14	68	10.79	2053	33.66	26.92	4.42	4741	36.75	29.40	6.03
16 Week Cut	Willing	Boyatup Site 1	Pasture Mix 2**	86	14	25.8	24.1	35.3	1.04	70.2	11.2	2688	39.53	31.62	5.19				

** Pasture Mix 2 consists of: Pascal Wheat, Triticale, Illabo wheat, Planet barley, Abundant ryegrass, Bladder clover, Balansa clover, Eliza Seradella, RM4 vetch

Overall, given that it was a very challenging year for growers in the Esperance region, most sites were successful. The standout variety for biomass was vetch which performed well in all three rainfall zones, producing 11,080kg of DM/ha in the Cascade RM4 and Barloo vetch mix. At the same time, it produced an estimated 239 units of N. Pasture quality was suitable; however, in the aforementioned Cascade site, the consumption rate had to be adjusted to ensure that the minimum energy requirements were met. This was due to the high levels of lignin and NDF that were produced, presumably caused by the early senescence of the Barloo vetch in the mix. In this case, caution should be taken when grazing heavily pregnant or lactating livestock to ensure that energy requirements are met within their consumption limitations. RM4 vetch samples that were collected from other sites showed a consistency of quality between the 10 and 16-week cuts with improved growth rates beyond the 10-week mark. Vetches fit well in the medium to high rainfall zones with tolerance to moderate soil acidity and alkalinity (pH CaCl 5-9). Acidic soils will reduce vetch's root development, nodulation, and overall biomass production. Vetch offers some good in crop grass control options; however, broadleaf control is limited mainly to grazing management.

This trial reaffirms the fit for using vetch varieties in a cropping rotation, both as a break crop and to improve overall soil fertility and N fixation. It important to note that woolly pod vetches such as RM4 can cause secondary photosensitisation if grazed when flowering or during seed set. Livestock should be removed from the paddock immediately if photosensitisation is noticed and the vet should be contacted for advice. A well-timed pasture top application can be used to stop seed-set, control other weeds for the following season and lock in feed quality by hay freezing the pasture prior to the biosynthesis of lignin.

Cereal crops are a good fit to defer the grazing of pasture paddocks. Grazing pastures too early will directly affect the paddock's stocking rate potential and the pasture's ability to set seed for subsequent years. Worse yet, pasture grazed too early can cause plants to be uprooted or defoliated, stopping or inhibiting the plant's development. The Agricultural Department of WA recommends a pasture wedge of at least 1000kg DM/ha before autumn/winter grazing, with the optimum amount being 1400kg DM/ha (DPIRD 2020). The saying goes, "grass grows grass", meaning that the higher the DM/ha, the higher the leaf material, and therefore the faster the pasture growth (DPIRD 2020). This is obviously most applicable to pastures that are in a vegetative state but an important rule of thumb when deciding to stock a paddock. This is where crop grazing early seeded cash crops (cereals or canola) can be very useful. As noted in the 10-week NRI results, both the Planet barley and the Illabo wheat have sufficient ME and CP% with low ADF, NDF and lignin levels, indicating the suitability of crop grazing over this period.

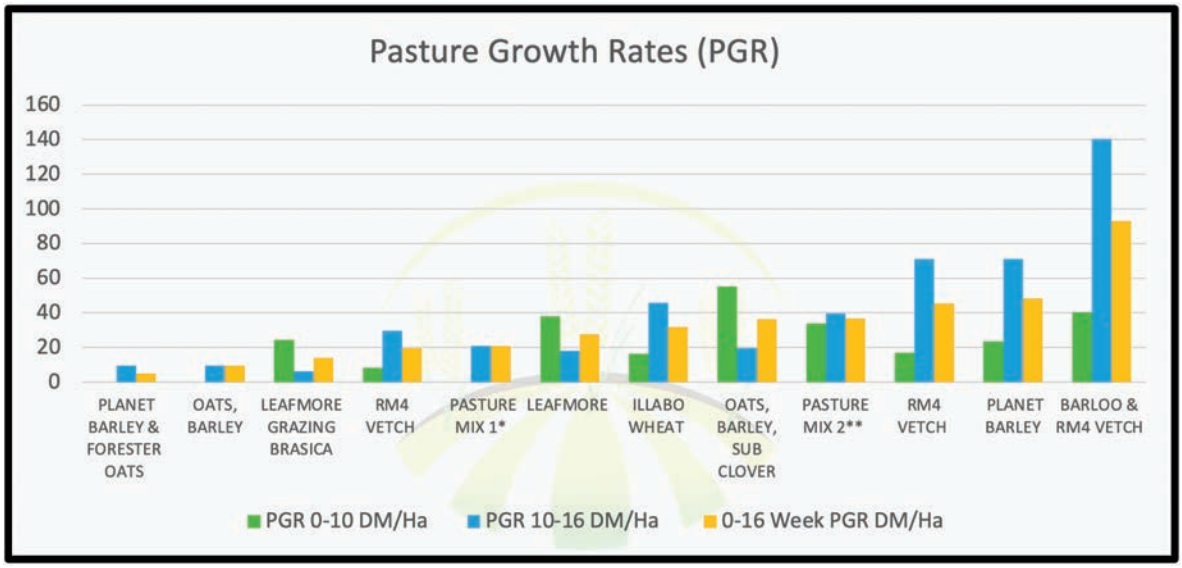
However, looking at the 16-week NRI measurements, the NDF increased quickly while the ADF had a slower rise, and lignin remained low. This suggests that the hemicellulose and pectin levels are increasing and is what is known as the "hardening" of the feed. Hemicellulose and pectin (good fibre fractions) slow the rate of passage, allowing the rumen time to extract nutrition from the green feed more efficiently. When crop grazing, you must consider the class of stock being grazed. A cereal crop like these two will be high in potassium and sodium, which will cause a tie-up of the calcium and magnesium that are already in low supply from the plant. This is a problem for pregnant livestock, causing hypocalcaemia or hypomagnesaemia, especially twin-bearing ewes. A calcium and magnesium lick could be introduced to ensure adequate mineral levels are maintained. Another key consideration for dual purpose crops is minimising the effect of grazing on grain yield. The timing that livestock are introduced and removed is essential to a successful dual-purpose crop. Livestock should not be introduced before the crop has suitable root anchorage to ensure that the plant isn't uprooted in the process of grazing. As a rule of thumb, a simple 'twist and pull' test can be used to assess plant anchorage. If the leaf breaks off and the plant remains anchored, stock may be introduced. However, if the plant is uprooted stock should not be introduced at that point.

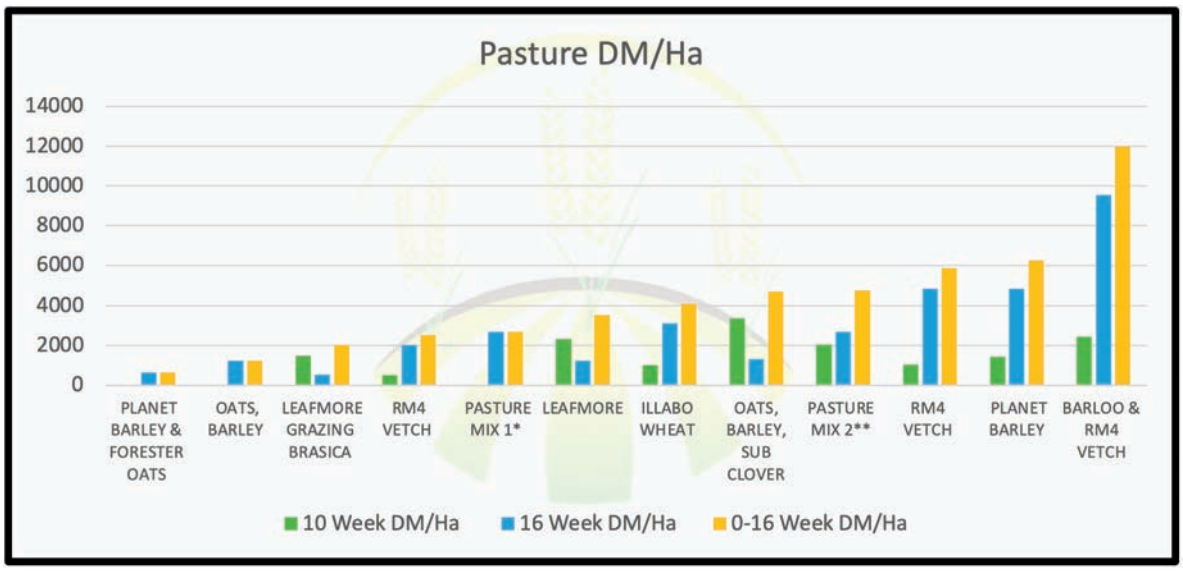
Continued over page.

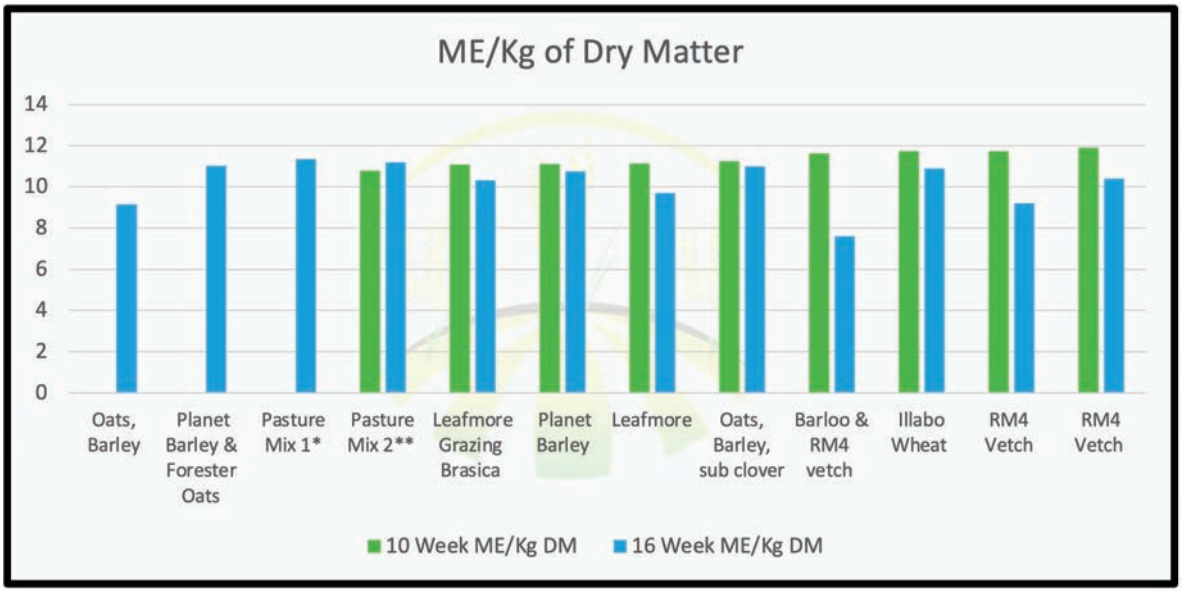
In considering when to remove livestock from the paddock there are two main considerations. 1. The growth stage: livestock should be removed when cereals reach stem elongation (GS30) or canola is beginning bud emergence (DPIRD, 2017). 2. Residual biomass and season length: it's important to ensure that suitable biomass remains to allow the crop to recover in time for grain production. Studies have shown that spring canola with 1.5t of DM/ha at stem elongation had a grain yield potential of 2.5-3.5t/ha and wheat with 0.5t of DM/ha at GS30 had a grain yield potential of 4-5t/ha (GRDC, 2019).

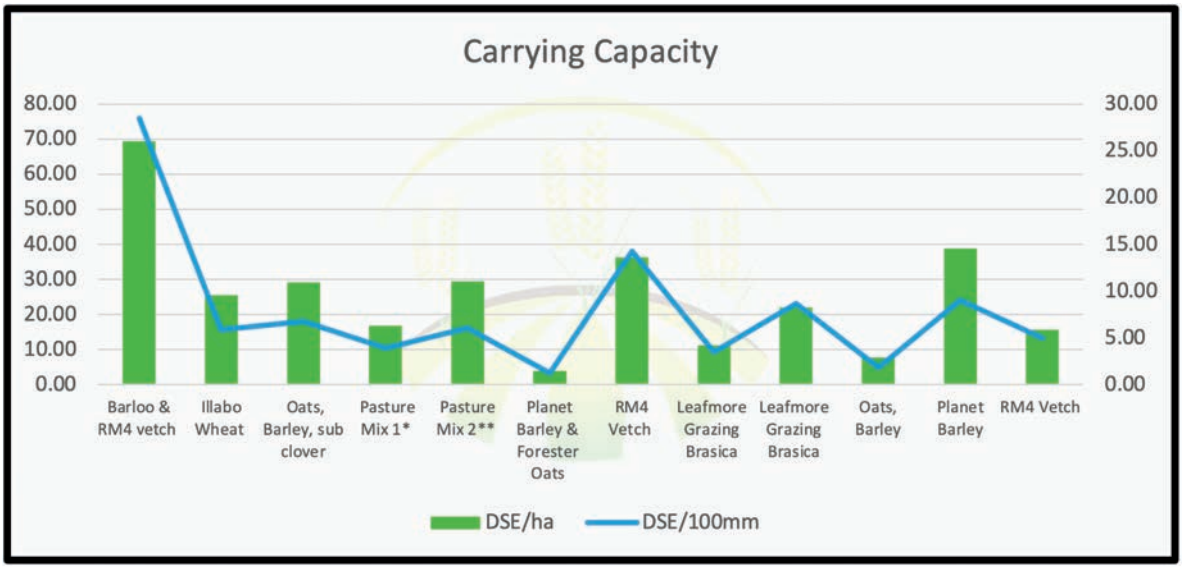
Through this trial, two Leafmore pastures were observed, one as a monoculture in an LRZ zone and the other with Santorini and Margarita serradellas in an MRZ. In both cases, the Leafmore produced good early feed, then appeared to run out of puff. Being a forage rape, Leafmore is hungry for nutrition, which would have been a limiting factor later in the season. Forage brassicas are also quite susceptible to insects such as aphids later in the season, making it wise to budget for an insecticide if you plan to see it through to the end of the season. Leafmore will be susceptible to many of the same diseases as canola, so it should be followed by a cereal crop when returning into the cropping rotation to ensure an adequate break in soil pathogens. This variety could be used alongside vetch to fill the autumn and winter feed gap created by vetch's propensity for delayed growth in cold conditions. Leafmore grown as a monoculture has the potential to produce a lot of biomasses. However, it requires a full nutritional package and a good insecticide program. An agronomist can assist in formulating the correct input package by considering soil constraints, seasonal potential and other potential limitations. Interestingly, Peter mentioned at the end of January, that his Leafmore was still green on his Salmon Gums site.

Pasture mixes that include several varieties are a great option for long-term pastures; they allow for biodiversity in the greater ecological system and provide a great risk mitigation strategy for the grower. By planning a diverse pasture mix, varieties will thrive in soil types and environments that suit them. From a nutritional point of view, as one plant becomes reproductive and less nutritious, a well-planned mix would have another variety to offset this by producing quality feed as it enters its vegetative stage later in the season. Because of the unusually wet conditions in the 2022 trials, the clovers didn't establish well. However, due to its particularly hard seed, the serradellas performed well, and the ryegrass thrived, producing large amounts of biomass.









2022 Demonstration Site Hosts - Grower Feedback

Epasco - Nick Ruddenklau's Feedback on the Project

The pasture mix of Abundant ryegrass, Forester oats, and Rasina vetch (Condingup Site 3) was an excellent fit for our system at Epasco Farms. The multi-species pasture had a great outcome with multiple applications and feed sources. Paddock B10 (Condingup Site 3) performed exceptionally well under heavy grazing with enough growth to be able to cut silage at 18T wet /HA, followed by a high level of growth to provide enough biomass for hay to be cut off at 2.2T/HA.

On reflection, providing an inoculant to the annual legumes would have been advantageous as the Rasina vetch did not nodulate to its full potential. The pasture mix required a high level of nutrition. It was a highly demanding "hungry" mix. The lack of nodules on the vetch could not provide enough nitrogen to support the pasture's rapid growth. The minimal nodulation of the Rasina vetch will also restrict the amount of nitrogen available for the following year.

Improvements for 2023

- Include an inoculation with annual legumes - vetch
- This was an unseasonably soft year with above-average rainfall that was beneficial to pasture growth. It was not under moisture stress
- When pastures were grazed hard, the legumes were targeted and grazed out, leaving a high % of grasses to dominate the pasture
- At moderate grazing levels, this allowed the legumes to compete evenly with the grasses and have a uniform species of pastures in the mix

Lortleaze – Simeon Roberts' Feedback on the Project

The combination of the two vetch varieties, RM4 and Barloo, was selected to extend the grazing window for Lortleaze's production system. This pasture variety provided a high level of biomass, recording 12 t DM/ha by the 16-week observations. In addition, high nitrogen fixation and nodulation levels of both vetch varieties were noted. This is highly beneficial in a rotational cropping program for the following year. An inoculant was not provided at seeding as there had been good background rhizobia history. This system will generally produce wheat yields of 5.5 tonne/HA on as little as 17 units of applied N/Ha.

Continued over page.

Reducing input costs of fertiliser, herbicides, and pesticides inoculants are critical to Lortleaze's production system to minimise risk and increase the profit margin. Barloo vetch in the mix became susceptible to grey mould Botrytis; the early sowing time of March in warmer conditions contributes to Barloo vetch's susceptibility to grey mould. RM4 seemed to show more resistance to grey mould. Whilst livestock was grazing the pasture, there were visual signs of photosensitivity on the nose and ears of the sheep. As a preventive measure, a mineral lick was provided to sheep consisting of gypsum, lime, salt, pre-made calcium sulphur lick, molasses, and magnesium oxide. The lick was to ensure the lactating sheep had sufficient calcium and magnesium whilst grazing green pastures to reduce the incidence of hypomagnesemia and hypocalcaemia. When sown in March, the vetch pasture was still producing viable biomass up to October.

Improvements for 2023

- Ensuring that the grazing cages are taller as the vetch climbed out of the cages – loss in biomass
- A control of each of the pasture varieties is used as a comparison to the mixes
- Research promotes funding towards more vetch species, exploring long seasoned variety for lower rainfall zones, warmer temperatures and aphid resistance

Future of vetch

- Increasing the use of regenerative farming to lower inputs
- Limiting the N inputs
- Decreasing pesticide and herbicide inputs with new resistance/tolerant varieties

Carnigup Farms - Ryan Willing Feedback on the Project

The trial as it was delivered was fantastic to be a part of. Having regular DM cuts and feed quality tests is precisely what is needed to correctly measure the value of a pasture. Unfortunately, despite my best efforts, my field failed to perform in this unusually wet year. Also, having to be re-seeded, it wasn't as profitable as it should have been.

The main positive from the mix was the rye grass that performed well in the wet. The other was that despite the struggle to keep this growing, the cattle did well on it, and I still met my goals of finishing them in September. The negative, apart from re-seeding, was that none of the legumes survived the winter. As a result, the stocking rate was lower than the same mix in previous years.

Improvements for 2023

- Increase sturdiness of the grazing cages, especially for cattle as they were very destructive; also, running a hot wire around the cages to reduce animals walking around cages.

Integration of Project Feedback

Feedback from 2023 site hosts will be considered to make improvements in the remaining years of the project, including adjusting the size of the grazing cages in vetch paddocks and their sturdiness in cattle paddocks.

In relation to capturing animal weights, unfortunately, whilst this information would be valuable, it is not deliverable within the scope of project resources – the increased level of complexity would require additional funding and also Animal Ethics Approval. However, this feedback will be considered by ASHEEP when planning future projects.

Re-establishment Sites (Sown 2020 & 2021)

The second aspect to this trial was to monitor the trial sites from 2020 and 2021 to identify which varieties would re-establish in following years under differing management systems and environments. It's planned to include this information in the next edition of the ASHEEP newsletter, but you can access it now in the full 2022 annual report via the ASHEEP website: www.asheep.org.au/pasture-variety-trials

2023 Plans

The ASHEEP Pasture Variety Trials project has two years remaining. In 2023 and 2024, the project will again follow pastures grown by farmers on a commercial scale (10ha minimum) throughout the Esperance region. South Coastal Agencies will continue to drive data collection and analysis. Members of the project team met recently to select sites, and ASHEEP looks forward to sharing these plans in the near future.

Above: Members of the project steering committee meet to plan for 2023, including producers David Vandenberghe, Nick Ruddenklau, Mark Walter, Esperance Rural Supplies agronomist Theo Oorschot, & South Coastal Agencies team members Chad Hall, Rachel Minett & Sarina Clawson.

Nick Donkin, Area Manager – Esperance East, 0428 715 045, ndonkin@summitfertz.com.au
Tim Donkin, Area Manager – Esperance West, 0408 092 355, tdonkin@summeitfertz.com.au

Safety Spot: Zoonoses

Reference: Worksafe Workplace Zoonoses www.commerce.wa.gov.au/worksafe/workplace-zoonoses

Zoonoses are infectious diseases that are transmitted between animals and humans. Worksafe has recently updated its information on Zoonoses including providing a checklist and creating an information sheet for farm workers.
Those most at risk from infection by workplace zoonoses include: abattoir workers, farm workers, fish workers, shepherds, shearers, wool sorters, veterinary workers, pelt and hide tanners, livestock handlers, including transport workers and animal laboratory workers.

Transmission usually occurs through bodily fluids (e.g. blood, saliva, urine) or faeces of infected animals, or through contact with other animals (e.g. cats, dogs, rodents). Contaminated items such as hay, wool, animal hair, hides and carcasses can also be a source of infection. The diseases can be transmitted from healthy or ill animals, and an infected animal may not appear sick.

For more information internet search for: "Worksafe Zoonoses" or go to the Zoonosis on farms information sheet: www.commerce.wa.gov.au/sites/default/files/atoms/files/zoonoses_on_farms_info_sheet_0.pdf

You will find the workplace Zoonoses checklist at:
www.commerce.wa.gov.au/sites/default/files/atoms/files/zoonoses_checklist_-_final.pdf

Occupational zoonoses are considered prescribed serious illnesses that must be reported under the Work Health and Safety Act 2020. The diseases are: Q fever, anthrax, leptospirosis, brucellosis, Hendra virus, avian influenza and psittacosis. The two most common zoonoses in Western Australia are leptospirosis and Q fever.

New ESI For Extinosad Aersols

David Howey, Elanco

Elanco has been advised that a Zero (0) day Export Slaughter Interval (ESI) has been formally approved by the APVMA.

Due to the long lead times for Extinosad Aerosol it is unlikely that the Zero (0) day ESI will appear on new stock of Extinosad Aerosol until mid-2024.

The Zero (0) day ESI now applies to all existing stock that is currently in circulation in the marketplace including warehouses, reseller stores and on farm.

Practical Advice

From a practical perspective we would warn producers against sending freshly treated flyblown animals either to a saleyard or direct for slaughter.

These sheep are at risk of being heavily discounted in the saleyards or condemned if sold direct for slaughter.

Our best advice is that, any freshly treated flyblown animals should be removed from the mob of sheep being sold and should only be sold once the flystrike wound has healed.

If you would like a copy of the new label please email David Howey at David.howey@elancoah.com.

Opportunity to check the Pestivirus (BVDV) status of your herd before joining!

Dr Enoch Bergman, Swans Veterinary Services

Hello Cattle Farmers!

ASHEEP has a new project giving producers the opportunity to check the Bovine Pestivirus (BVDV) status of your herd prior to joining and work out what to do next.

BVDV is an endemic disease present on the majority of Esperance beef farms. Its financial impact can be devastating. The virus causes disease in a cyclical manner with the impact being worse in some years compared to others, which makes affected producers often unaware that they harbor the disease or that their bottom line has been affected. We have observed outbreaks of BVDV that have impacted over half of the progeny born from some groups of breeders here in Esperance. Global estimates of the cost of the disease range as high as $100 per breeder per year on average. It is a disease worth understanding, both as a potential risk and in regard to a producer's own property's status.

The project was developed by ASHEEP in collaboration with Swans Veterinary Services, and is funded as part of the Meat & Livestock Australia (MLA) Producer Demonstration Site (PDS) program. The project is entitled: Utilising Heifer Pre-mating Serology to Manage BVD.

In the project we intend to each year screen your (and possibly every other Esperance producer's) heifers prior to mating, to see if they have already been exposed to BVDV. The goal is to make each producer aware of their unique BVDV risk, and to give them options to take steps to protect their investment in their next generation of breeders. In a nutshell, if the heifers are immune prior to mating, we will encourage you to ear notch each and every one of them to identify and remove any PI (Persistently Infected) animals. If they are naïve, we will encourage you to vaccinate them with Pestigard. The goal is for your heifers to be mated, both immune and PI free, in order to break the BVDV cycle and allow you to progress to herd level BVDV freedom.

The costs of screening are heavily subsidised by MLA, IDEXX, and Swans Veterinary Services. In order to keep the cost of screening as low as possible, we will be coordinating "blood drives", wherein some of our veterinarians will visit a number of properties in proximity to each other to collect a blood sample from 5% or a minimum of 6 of your replacement heifers. All of the physical costs of collection, testing, and interpretation are covered by the project, and if we work together, the costs of travel will be minimized.

Our goal is to screen every producer in Esperance to help us to control this serious disease. Maintaining freedom is not difficult, but key to it is understanding your own status and the status of any animals you may buy in.

Get in touch soon to be involved by contacting Swans Veterinary Services or ASHEEP, and we'll attempt to schedule an opportunity to blood test your heifers prior to this year's joining, with sufficient time to intervene appropriately. Knowing your own BVDV status is the key to managing your herd's BVDV future.

Thank you very much!

Dr Enoch Bergman, Swans Veterinary Services

CALL NOW!
TESTING UNDERWAY

Swans Veterinary Services
Dr Enoch Bergman or Dr Reuben Welke
(08) 9071 5777

Photo Credit: By Dan Paris, at Erica Ayres' & Phil Cleghorn's farm.

Department of
Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

**Protect
Grow
Innovate**

Moving from visual to eID - tagging which stock and when

Current: Visual NLIS year of birth tags for home bred sheep and goats, and additional pink tags in the earmark ear for brought-in stock.

Future: Electronic NLIS identification (eID) for all newborns and all existing older stock with visual tags prior to leaving the property.

Consider:

- Where you move your stock off your property, is it for sale, show or otherwise?
- When you move your stock off your property. Decide when it will be most practical to begin using eID to minimise double handling to re-tag stock with visual tags.

What will change?

- One eID per sheep at any time – the location and ownership details are transferred and recorded on the NLIS database.
- Apply the eID to the correct ear for gender – right ear for females, left for males regardless of whether the eID is year of birth colour or pink. This will allow for drafting when full implementation will see sheep with only one tag.

What will stay the same?

- Stock owners must maintain a current registration.
- All properties where stock are usually kept must have a PIC registered to the stock owner (may not be land owner).
- All sheep and goats must be NLIS identified by 6 months of age or before leaving the property, whichever occurs first.
- The NLIS database must be updated with the record of sheep or goats coming onto a PIC within 48 hours of arrival.

Goats

Dairy, miniature, earless goats

Dairy goats, miniature and earless breeds of goats can utilise the hock band option instead of ear tag eIDs. Year of birth bands will be yellow and brought-in goats without an eID will need pink. Apply to the same hock – left / right - as year of birth eartag for gender.

Harvested rangeland goats

Registered stock owners who harvest rangeland goats will only be able to send stock direct to abattoir, or to neighbouring property for aggregation for direct consignment to abattoir, without a permit from DPIRD. Please contact your local biosecurity officer.

Discounted sheep and goat eID tags now available

Department of Primary Industries and Regional Development

Discounted electronic identification (eID) ear tags are now available for the 2023 lamb and kid drop, as part of a Western Australian pilot to prepare for the adoption of the mandatory system for sheep and goats by January 2025. The Tag Incentive Payment discount is part of the WA Government's $3.4 million commitment to implement the nationally agreed eID system and enhance the State's traceability capacity in response to increasing emergency animal disease threats.

National Livestock Identification System (NLIS) traceability is vital for a rapid response to an emergency animal disease or food safety incident and to underpin valuable trade relationships and export markets.

Department of Primary Industries and Regional Development (DPIRD) Deputy Chief Veterinary Officer Chris Rodwell said the sky blue 2023 year-of-birth eID tags would enable the scanning devices to be tested ahead of the 1 January 2025 start date. "The 75 cents per tag discount reduces price difference between the visual tags currently in use and the new eID tags," Dr Rodwell said. "The Tag Incentive Payment discount will apply to fully accredited NLIS eID tags, available from rural merchandisers and online for lambs and kids born in 2023. As the discount is applied at the manufacturer level, no additional paperwork or online input will be required to purchase the eID tags. Early adoption of the eID tags will minimise the time and labour required to re-tag sheep and goats born in 2023 prior to being moved off the property after the new eID system commences."

The eID tags contain a microchip that is read via a scanning wand or panel reader, which is uploaded to the NLIS database to record an individual animal's movements between Property Identification Codes. DPIRD will work with saleyards, processors and export depots to help integrate the new eID technology into their operations.

"The plan is to have scanners installed throughout the post-farmgate supply chain by mid-2024 to test the complete system," Dr Rodwell said. "The department will work with industry to implement the new technology before the mandatory eID system starts."

DPIRD is collaborating with the Western Australian Sheep and Goat NLIS Advisory Group to facilitate the adoption of the eID tags.

Dr Rodwell said every tag had a unique electronic identifier, which would be scanned as the animal moved through the supply chain – providing an individual, whole-of-life passport. "It is important that all sheep and goats are tagged by January 1 2025 – irrespective of their final destination – to ensure the rigour of the new system," he said. "I encourage all livestock producers to consider how to best make the move to electronic identification to protect their businesses and the industry."

More information about the discounted sheep and goat eID tags and the transition to the mandatory national system is available on the 'Electronic identification for sheep and goats' webpage.

The Sheep and Goat NLIS Advisory Group is comprised of representatives from across the sheep and goat production, saleyard, processing, feedlotting and export sectors, as well as WA Farmers, the Pastoralists and Graziers Association, Sheep Producers Australia, Wool Producers Australia, the WA Goat Meat Industry Committee, Dairy Goat Society of Australia (WA), Livestock and Rural Transport Association (WA), WA tag manufacturers, livestock agencies, ASHEEP, the WA Livestock Exporters Association, Grower Group Alliance and DPIRD.

Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

More Information:
www.agric.wa.gov.au/livestock-movement-identification/electronic-identification-sheep-and-goats

zoetis

Virbac

PASTORAL AG®

ALOSCA TECHNOLOGIES

9071 9700

SCOTT WILLIS—MANAGER—0409 682 744

GARRY VARCOE—OPERATIONS MANAGER, ANIMAL HEALTH, —0460 684 943

BRUCE FRANCIS—OPERATIONS MANAGER, ACCOUNTS—9071 9700

SHONN CRUTTENDEN—ON ROAD SALES— 0427515383

KIM SLEE—PUMPS, WATER PRODUCTS,SPRAY EQUIP,GUNS & AMMO—0419 198 682

THEO OORSCHOT—AGRONOMIST—0427 715 166

How to optimize production in your first calvers

Dr Scott Jackson, Swans Veterinary Services

With this year's heifers painting the perfect picture of thrift and fertility, it is hard to imagine the same animals as scrawny passengers on the truck come preg-testing if we don't provide these first time mums with the utmost TLC.

As it is not in your financial best interest to be sending skinny first calvers to the meat works (this is where you want to send your fat empty maidens!), optimising fertility in these least of fertile animals is a necessary challenge.

The two key reasons why our first calvers struggle with fertility more than their maiden and multiparous counterparts are: (1) They are being hit with the heavy metabolic burden of lactation for the first time and (2) They have a longer return to service interval (RTSI) than the latter age groups.

Caring for you first calvers starts with caring for your heifers. To optimise fertility at their second joining, maiden heifers should be mated:

Early: Ideally a month before the cows to factor for their longer RTSI. In saying this, we still need to ensure heifers are not joined at less than 95% mature body weight (we have been pulling a few calves from very small heifers this season).

Fast: Fixed time AI or a mating period of no longer than 6 weeks will help to align first cycles in the subsequent joining and also weed out the less fertile animals.

Hard: Heifers are fertility machines! If they don't get in calf by pregging as a heifer, they most likely won't as a first calver. They are also one less mouth to feed and earn a pretty penny on the truck!

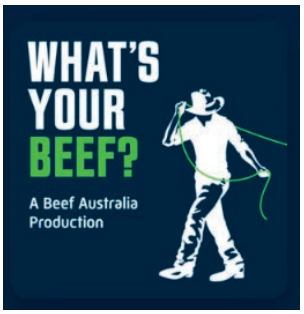
Amongst all the deficiencies that can result in suboptimal fertility, vitamin F (food) takes the front row seat. A steady or rising plane of nutrition should be maintained to achieve a BCS of 3/5 at joining. If spring pastures are plenty and the pendulum swings too far the other way (as was the case last year), well-conditioned cattle should not be retired to the "jenny craig" paddock. Starving fat cattle late in gestation will not only fail at making the calves smaller but will also predispose the mother to exhaustion during calving.

Also take note of your first calvers feet and udders. If you have the replacement heifers to spare, culling first calvers with poor feet and udder conformation may spare instances of suboptimal fertility and poor offspring growth rates in subsequent joining's.

As always, boost your vaccines (at least for clostridials) and address any trace element deficiencies that are relevant on farm to give your first calvers the best head start towards becoming profitable second time mums!

Swans Veterinary Services
(08) 9071 5777

Podcast Spot: What's Your Beef



"What's Your Beef" is a podcast by Beef Australia. It runs fortnightly, taking you behind the scenes of the iconic Australian beef event (Beef2024 Rockhampton is set for 5-11 May 2024), as well as around the country chatting "to anyone and everyone who celebrates our incredible beef community". This includes experts from all areas of the supply chain and some of the many characters involved in bringing Beef Australia to life since its inception in 1988. You can find all episodes of the "What's Your Beef" podcast on Spotify or Apple podcasts. Latest episode: "Making her mark, in and out of the paddock with Prue Bonfield" (beef producer).

If you have other podcasts to recommend let us know and we'll share them with group.

The Baseline Workshop Review

ASHEEP's "Carbon Neutral 2030 – Getting started on farm" project

Jan Clawson, ASHEEP

On the 15th March 24 people from 13 farm businesses came together to participate in "The Baseline Workshop!". The first event for our Meat & Livestock Australia (MLA) Producer Demonstration Site funded Carbon Neutral 2030 – Getting Started on Farm Project.

The day started with a presentation by MLA's Sarah Strachan. Sarah is Group Manager for Adoption & Commercialisation.

Sarah took us through how the CN30 target came about. The original Australian baseline was conducted in 2005 since then our emissions have reduced by 60%. This is predominantly from land management in Queensland and on farm efficiencies. Unlike New Zealand, our system is completely voluntary with no government enforcement. It is hoped Australian agriculture will be proactive and stive to achieve or at least work toward carbon neutrality.

Sarah finished by announcing MLA has launched an online, web-based greenhouse gas (GHG) calculator. The calculator is based on the Sheep and Beef Greenhouse Accounting Framework (SB-GAF) tool. Melbourne University developed the calculator and continue to update the excel version of the tool. It is often referred to as the PICCC tool.

Project consultant, Richard Brake from Richard Brake Consulting, then took us on a rapid learning journey on carbon baselines. Richard started with some of the terms like the Greenhouse Gases (GHG), Global Warming Potential (GWP) and Carbon Dioxide Equivalent (CO2-e).

Then we went on to understanding the various "Scopes" and how they relate to each other. Scope 1: is your business emissions, Scope 2: is emissions from the electricity used by your business, Scope 3 is broken into two, Upstream: emissions from purchase in goods and Downstream: emissions from post farm gate sources like meat processors.

Richard has completed a calculator comparison trail; he took us through how the various calculators preformed. The Melbourne Uni PICCC tool performed well. While it is available to use now, it is still in a development stage so is constantly being updated as more information becomes available, and feedback received.

We then went onto the information required to complete the SB-GAF PICCC tool. It starts with livestock numbers on farm each quarter, any livestock purchases or sales, the percentage of cows calving or ewes lambing, if mineral supplements were fed and urea fertiliser used on pastures and crop, fuel and electricity use and any feed purchases. There is also a section on wool production and feed availability. In the first instance Richard recommended completing the calculator using the default feed availability numbers, they can be changed later if you want to go into more detail.

This data all comes together on a summary page with your Net Farm Emissions. This is your baseline!

Enteric methane emissions is the big one in a livestock production system. Richard spoke on ways to reduce enteric methane. These include anti methanogenic pastures and pasture composition but probably the most important factor is production efficiencies like shorter turn off time.

Richard finished with information on Carbon Projects the process involved in setting up a carbon project, the rules around them, the issues to consider before signing any of your land up to a 25-to-100-year carbon project.

Rabobank's Crawford Taylor joined us via zoom. Crawford talked about the commitment Australia has sign along with 200 other countries to be Carbon Neutral by 2050. China & India are not part of the 200 countries. He said Rabobank are a member of the United Nations convened Net-Zero Banking Alliance which brings together a global group of banks which are committed to aligning their lending and investment portfolios with net-zero emissions by 2050. He also mentioned Partnership for Carbon Accounting Financials (PCAF) have a data quality score ranging from 1 to 5. Level 1 being audited. An unaudited GAF is regarded as a level 2. So, completing a SB-GAF baseline carries some benefits. Crawford finished with a great question and answer session which help everyone bring the information of the day together.

The next step for our workshop participants is to complete their own baseline. We will meet again as part of a tour to Katanning (25th - 27th of July 2023). Mandy Curnow will take us through the Katanning Research Station CN30 journey to date and the strategies they are implementing. We will look at their revegetation, pasture rejuvenation, the methane shed feed efficiency research, and the Feed365 project pasture trials.

Photo Credit: By Dan Paris, at Erica Ayres' & Phil Cleghorn's farm.

ASHEEP Katanning Tour

SAVE THE DATE

25 - 27 July 2023

ASHEEP is planning a trip from Esperance to Katanning, visiting the DPIRD research station to look at carbon neutral planning, revegetation, pasture rejuvenation, the methane shed feed efficiency research, and DPIRD's extensive Feed365 pasture trials. We're also building in farm stops, facility tours, and good food along the way. Keep an eye out for final plans and registrations closer to the time.

This tour is connected to ASHEEP's "Carbon Neutral 2030: Getting started on farm" project, a Meat & Livestock Australia Producer Demonstration Site.

Podcast Spot: Let's Talk Governance

"Let's Talk Governance" is a podcast by Grower Group Alliance. If you are on a committee, put it on your list!

The podcast provides guidance for "Not for Profit" groups in WA, supporting the people in these organisations to lead with high impact, confidence and compliance. There are six episodes and each is only 30-45min. It's a worthwhile investment of time if you want to better understand your responsibilities as a committee or board member.

- Episode 01 - Directors Responsibilities
- Episode 02 - Directors Responsibilities (Cont.)
- Episode 03 - Achieving Best Practice Board Performance
- Episode 04 - Achieving Best Practice Board Performance
- Episode 05 - The Board's Role in Strategy and Risk
- Episode 06 - Financial Responsibilities and Performance

Find it on your podcast player or listen here:
https://lets-talk-governance.captivate.fm

Westcoast Rural Real Estate Ups the Ante

Westcoast Wool & Livestock

With the property market not showing any sign of slowing down, new players Westcoast Wool & Livestock have entered the market to give farmers the personalised West Aussie approach they have been craving.

Westcoast Wool & Livestock (the brand we all know and love) are in a unique position, where they have more buyers waiting on the books than listed sellers, and are cold calling farmers to try and find the perfect farm for their interested customers.

Calling it a natural progression in their already existing successful business, the team is excited to take the next step into the real estate market, establishing Westcoast Rural Real Estate.

Heading the Westcoast Rural Real Estate team is real estate manager WA Peter Storch, a well-known face in the rural industry. With over 48 years of industry experience under his belt, Mr Storch was ready to hit the ground running and create a brand in real estate that was local and reliable. Being 100% West Aussie owned, agile and quick decisions can be made according to the customers needs, all within the comfort of the state. He hoped with time Westcoast Rural would become the “agency of choice” for real estate, just as it is with wool and livestock.

Mr Storch said he was looking forward to reconnecting to the farmers that know him well, as well as creating new relationships and networks with people who may not know him throughout the regions. “What attracted me to Westcoast Wool & Livestock was that it's local, independent and I see the future growth pattern for some very exciting times,” Mr Storch said.

Westcoast Rural have teamed up with Raine & Horne Rural to ensure that farmers get the country down-to-earth communication they know and love, combined with the back-office functions of a metropolitan real estate agent. With 330 offices worldwide, Raine & Horne has access to a worldwide network of buyers, connecting farmers to the rest of the world.

Mr Storch described the current market as “phenomenal,” with the environment suiting all sellers as record prices are achieved across the state. “In any given district, the last farm sold is actually making more money per hectare than the previous sale,” he said. He predicted buyer demand to continue for the foreseeable future in rural real estate, and believes now is the perfect time to consider listing your property on the market.

“I think we're in unprecedented times where there's so much interest in rural land, not only in Western Australia, but from all of Australia,” he said. “That's being created by investors, large institutions, and farmers in general. There's a huge appetite from people wishing to get into rural Australia or grow their existing portfolios through acquisitions of more country.”

The Westcoast Wool & Livestock team are in “growth mode” and actively recruiting anyone interested in joining the agribusiness world. According to Mr Storch, the Westcoast model is “proven, local and established,” and now they are putting more people on the ground to better serve their customers. They are known for their good agency practice in all facets of their businesses, and hope to continue this legacy into the real estate industry.

Westcoast Wool & Livestock was looking forward to having someone as skilled and diverse as Mr Storch joining their team, according to Westcoast Wool & Livestock general manager Geoff Geary.

“We see real estate as a natural progression of our existing business and we're excited to have Peter on board to help us grow and develop the business,” Mr Geary said.

The team currently includes 40 people across three different states, and they hope that number will continue to grow. Contact Peter Storch 0427 099 587.

Above: One of Westcoast Rural’s Directors, Geoff Geary (Right) and Westcoast Rural’s new Manager, Peter Storch (Left)

Cattle Workshop Wrap

Sarah Brown, ASHEEP

On 15th February, a swag of cattle producers, industry and students from Wongutha Caps got together in Esperance for a workshop that launched three new Meat & Livestock Australia Producer Demonstration Site projects that ASHEEP is running in collaboration with Swans Veterinary Services. The workshop was delivered by vet Dr Enoch Bergman who is facilitating the projects. The workshop covered a wealth of information, including condition scoring, critical mating weights, pre-joining nutrition, vaccines, worms, mating ratios, bull prep, weaning weights... the list goes on! A few takeaways from the workshop relating to the projects include:

Managing Bovine Pestivirus (BVDV)

- Check your heifers' BVDV status pre-joining (subsidy now available - call Swans!)
- Consider vaccinating if results confirm no exposure to BVD (Pestigard).
- If they have been exposed you can ear-notch to identify and remove persistently infected animals.

Preventing Bull Preputial Breakdown by Vaccination

- Vaccinating bulls for Bovine Herpesvirus (either Rhinogard or Bovilis MH + IBR) prior to mating can reduce the incidence and severity of Bovine Balanoposthitis and hence bull wastage in virgin British bred bulls.
- Subsides will be available via the project to investigate bull preputial breakdowns.

Optimising Time of Weaning

- Weaning earlier has the potential to improve pasture use efficiency allowing improved stocking density, conserve high value feed stuffs for finishing weaner cattle and conserve the body condition of breeding females improving their ability to both calve successfully and rebreed at the subsequent mating opportunity.
- If you would like understand if your herd could benefit from earlier weaning speak to Enoch about joining the project.

More information on these three projects is available at www.asheep.org.au/projects-activities or you can contact Enoch via enoch@swansvet.com or at Swans Veterinary Services on (08) 9071 5777. Producers have the opportunity to get involved as a "core producers", giving access to Enoch's knowledge along with a network of other interested producers. Many thanks to Andrew Kuss for hosting this workshop.

WA bucks national trend, with confidence up in state's farm sector

Rabobank

Right: Rabobank WA Regional Manager – Steve Kelly

Results at a glance:

- WA, along with Tasmania, are only states reporting increased farmer confidence this quarter.
- Still-strong commodity prices are a key factor driving positive sentiment, but concerns about prices easing are also fuelling concerns about the year ahead.
- Inflation and dry seasonal conditions emerge as a growing concern.

Western Australia's second consecutive record-breaking winter grain crop – delivered over recent months – has seen the state's farmers look to the year ahead with increasing optimism. WA, along with Tasmania, were the only states in Australia to buck the national trend, recording improved farmer confidence levels in the Q1 Rabobank Rural Confidence Survey.

Nationally, the survey found sentiment in Australia's agricultural sector had dropped to its lowest level in more than four years as farmers reported concerns about softening commodity prices, higher interest rates and the return of dry conditions.

For WA, the latest survey found 13 per cent of the state's farmers are expecting conditions in the agricultural economy to improve in the coming 12 months (up from nine per cent with that view last quarter), while 53 per cent expect the current economic conditions to be maintained. And, although 34 per cent of WA farmers surveyed anticipate business conditions to worsen in the coming 12 months, this was an improvement on 38 per cent last survey.

For those WA producers with an optimistic view of the year ahead, still-strong commodity prices were a key driver of their positive outlook (for 50 per cent), along with positive overseas markets and economies and lowering input prices. Concerns about commodity prices falling though also factored into the outlook for the state's farmers who expected conditions to decline in the 12 months ahead, cited by 70 per cent (up from 25 per cent last quarter). This quarter, inflation and dry seasonal conditions also emerged as a concern – nominated, respectively, by 19 per cent and 15 per cent of those farmers with a pessimistic view. Neither had rated a mention in the previous quarter. 'Too much rain' was also a concern for 18 per cent.

The survey, completed last month, found WA farmers were somewhat less concerned about high input costs this quarter – identified as a worry for 64 per cent expecting conditions in the agricultural economy to decline (compared with 79 per cent previously). And the number of farmers concerned about finding and retaining staff/labour was also slightly down.

Rabobank regional manager for Western Australia, Steve Kelly said the lift in agricultural sector sentiment reflects the positivity generated by WA grain growers harvesting and delivering the state's second consecutive record-breaking winter grain crop, which was "a significant achievement". "The state's grain growers faced some challenges in 2022 – dealing with high input costs, staff shortages and lengthy machinery delivery delays – to produce a bumper crop for a second time. And this demonstrates the resilience of our farmers," he said. Mr Kelly said as WA grain growers look to the year ahead, costs for fertilisers, chemicals and fuel continue to be a challenge. The survey found the state's grain farmers were particularly concerned about the impact of high input costs. Easing commodity prices and labour shortage challenges were also a worry for the grain sector.

For the state's beef producers – just under half surveyed believe agribusiness conditions will remain the same in the coming 12 months – similar to last quarter. Mr Kelly said northern WA beef producers have generally experienced fair seasonal conditions, with the Kimberley being an exception with widespread flooding in January. The survey showed easing commodity prices were the main cause for pessimism for those in the beef sector with a less bullish view on the year ahead.

Sheep producers in WA were found to hold a more optimistic outlook this quarter. However, concerns about high input costs, declining commodity prices, inflation and international economies were all listed as causes for concern by sheep producers. Mr Kelly said a lack of access to livestock-processing facilities in WA continues to be a major issue for the state's sheep producers.

This survey found the number of WA farmers expecting an increase in gross farm income in the coming year increased to 28 per cent (up from 19 per cent in the December quarter) while 30 per cent believe their incomes will decline. A total of 42 per cent expected incomes to remain the same.

The latest survey found WA farmers' appetite to increase investment in their businesses declined slightly this quarter – with 29 per cent expecting to lift investment levels (compared with 30 per cent last quarter) and 14 per cent planning to curb investment spending (up from just five per cent).

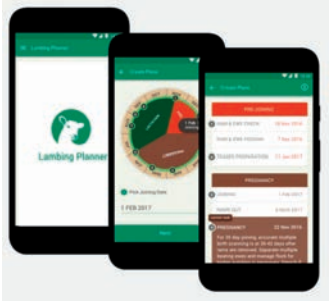
Of those WA producers planning to increase their business investment, 41 per cent intended to purchase additional agricultural land (down from 56 per cent last quarter). Mr Kelly said there continues to be strong interest in purchasing agricultural land and the property market is not slowing down, however, availability of land is a challenge for WA farmers looking to expand their business. "'Blue chip' properties always sell well, but the demand is so strong, second-tier properties are also selling quickly at present," he said. The survey showed there was also an increased appetite among those WA farmers planning to invest more in their enterprises to spend on on-farm infrastructure –fences, yards, silos and sheds –and machinery and plant.

A comprehensive monitor of outlook and sentiment in Australian rural industries, the Rabobank Rural Confidence Survey questions an average of 1000 primary producers across a wide range of commodities and geographical areas throughout Australia on a quarterly basis. The most robust study of its type in Australia, the Rabobank Rural Confidence Survey has been conducted since 2000 by an independent research organisation. The next results are scheduled for release in June 2023.

To find out more about other Rabobank research, contact the Esperance branch on (08) 9076 4200 or subscribe to RaboResearch Food & Agribusiness Australia & New Zealand on your podcast app.

Lambing Planner App: Updates in the wind

Sarah Brown, ASHEEP



The Department of Primary Industries & Regional Development (DPIRD) is making changes to the Lambing Planner. This is a tool developed by ASHEEP and DPIRD, allowing you to change a lambing date or a joining date to see the impacts of that on other key times in the reproductive year. It also features a short best-practice guide for lambing. It is available as a hand-held, paper based tool or as an App in both Android and iOS formats.

The app was recently revamped to remove a glitch affecting joining date selection. Unfortunately, DPIRD has advised that the glitch meant that the app had to be fully rebuilt using a different system.

The fix has now been pushed out to the Apple store and these users will be able to update the app to fix the date glitch, but when you update the app your old plans can't be transferred over. Android users may need to download a new version of the app and DPIRD will be releasing more information about this in the near future, which ASHEEP will pass on. The best advice right now is that if you need to keep your current plans, before you update note down the joining date and the plan name, so you can add them to the new version once downloaded.

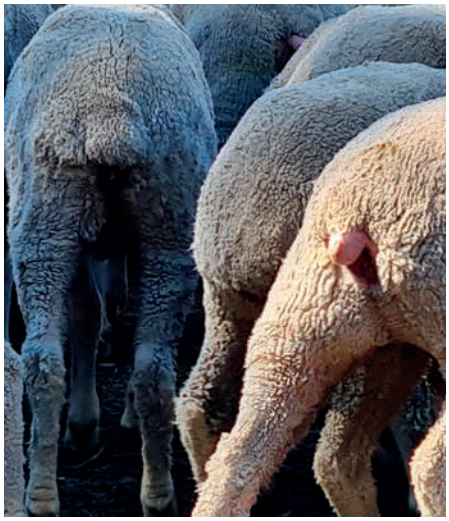
The next stage of the app's redevelopment is to implement new features based on user feedback. This is a great opportunity to take the tool into the future - potentially integrating new functionality and the latest best practice. Katherine Davies (DPIRD) is leading the redevelopment and has created a quick survey to collect information on what upgrades people would like to see: **www.surveymonkey.com/r/LambingPlannerApp**

We would strongly encourage those who use the app to complete this survey.

Contact: Katherine Davies, Katherine.Davies@dpird.wa.gov.au, 08 9690 2169.

Non-Mulesed Systems Meeting

Sarah Brown, ASHEEP



Ed Riggall, AgPro Management, has set the date for the next meeting of producers in the Esperance group of the Non-Mulsed Systems project. If you are not already involved, you are welcome to come along. It's funded by Meat & Livestock Australia as a part of their Producer Demonstration Site program.

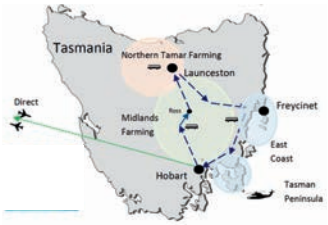
The meetings are an opportunity for producers who are interested in non-mulsed systems to learn from each other and experts. Networks are now set up in Esperance and around WA.

The next meeting is planned for the morning of **20th April 2023**, meeting at Mark & Liv Walter's in Cascade. If you would like to attend this free session, please contact Ed Riggall in advance for more information: 0428 299 007.

Above: The group with Charlie Downie at Glenelg farm.

27 Farmers Take On Tassie

Sarah Brown, ASHEEP



24th February to 3rd March 2023 saw 27 farmers from the Esperance region take an 8-day study tour to Tasmania, with a focus on sheep and cattle production, plus a decent hit of Tassie tourism, fine wine and food. At this point we must give a nod to ASHEEP member Liv Walter who came up with the concept and helped the ASHEEP team bring it to life, and to James Nosworthy (Ag Co Lab Study Tours) who organised the trip. Over the course of the tour, we visited 8 farming enterprises on a range of scales, looking at systems involving angus cattle, fine wool merinos, composite sheep for meat production, cropping, ag-tech, agritourism, dryland pasture, irrigation systems, value-adding, and business diversification.

Day 1 & 2: Things started off slowly on the farming front, with the first couple of days spent in Hobart wining and dining, and checking out the Salamanca Markets. We also spent an afternoon at the Museum of Old and New Art (MONA), an iconic tourist attraction of "unique and provocative" art covering 3.5ha. Feature pieces include the "poo machine" (Wim Delvoye's Cloaca Professional, a machine which turns food into excrement), and "The Great Wall of Vaginas" (151 porcelain vulvas sculpted from real women). Needless to say, MONA was a conversation piece, summed up by Glen Quinlivan when he said that he thought that John Hallum was "probably the only close-to-80-year-old to survive that joint", and "what happens in MONA, stays in MONA".

Top: McHenry Distillery barrel vault.
Above: Matt Dunbabin explaining the vineyard.
Below: Shearing shed at Glenelg Farm.

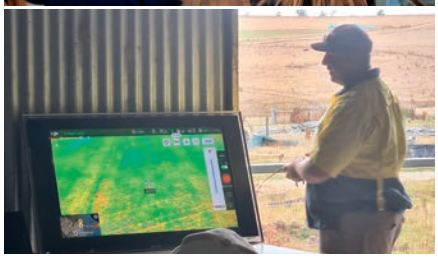
Day 3: Took us to the UNESCO world heritage-listed Australian convict site Port Arthur on a guided tour, followed by a visit to McHenry Distillery where Bill McHenry showed us around and gave us the opportunity to create our own gin. He later confided that our concoctions were decidedly average (as Dave Vandenberghe said, we obviously aren't distillers), but congrats to Cassidy Whiting & James Nosworthy who were judged to have created the pick of the bunch.

The day wrapped up at **Bangor**, a farm on the Forestier Peninsula with 36km of coastline running 6000 superfine merino sheep (15-16 micron in ewes & 12-14 in hoggets), 1000 crossbred ewes, lamb, prime beef, a vineyard, on-farm restaurant, native forests and grasslands, and 2,100ha of permanent forest reserves. Here Matt & Vanessa Dunbabin welcomed us with a delicious meal and impressive views of the bay. They are 5th generation farmers, predominantly dryland grazing with 15% improved pastures (perennial ryegrass, cocksfoot, sub clovers) and some fodder crops (brassica & short rotation ryegrass). The improved pastures run about 80% of the DSE. Rain is about 55mm per month all year round, but the season finishes quickly in January and they have introduced a couple of centre-pivot irrigation systems for finishing lambs. They are non-mules and achieve 100% lambing in merinos and 140-160% in crossbreds. The vineyard was added in 2010 as a way to cope better in drought. The diversity of the business was impressive, as well as their drive to adapt in an area where land (if it ever sells) is worth more as real estate than for farming. Conservation is very important to them; the farm is home to wallabies, possums, about 1000 wombats and 200 naturally disease-free Tassie Devils.

Day 4: We hit the road and started the trip north, with first stop near Gretna at **Glenelg**, where we were met by Charles Downie. The farm has been in the family since the 1820s. Charles and wife Sally run Glenelg plus another farm 70km north. Charles was clearly passionate about the farm and willing to take on new challenges. Their system includes fine wool merinos, Angus cattle, a vineyard, forestry managed for carbon credits and land leased to potatoes. Charles is undertaking a Nuffield Scholarship investigating how the increasing use of technology in the livestock industry is advancing the skills required for employees to be effective. He advocates for greater funding for training and simplification of available technologies to ensure industry is equipped with the skills and tools to progress. Tasmania is no stranger to Australia's labour shortages, with Charles noting difficulty finding livestock / vineyard managers and shearers. Glenelg receives around 475mm rain per year and some areas of land are irrigated with water from the River Derwent. Brassica is being trialled to finish lambs. Worms can be a problem and they test for resistance regularly to monitor drench effectiveness. Glenelg sheep are non-mulsed. All sheep are eID tagged and Charles focuses on recording the data that pays bills. The Downies have an eye to the future and hope that business diversification (e.g. the vineyard) will create pathways for future generations.

After swinging by a distillery, we then followed the scent of BBQ steak north to **Warringa**, where Richard Webster greeted us at a picturesque spot in the paddock with tongs in hand. The farm was purchased by Richard's grandparents in 1946, and after some tough times in the 1970s when the farm was leased out, two of their sons returned and took it in a new direction. They moved away from polwarth sheep to merinos, started cropping and became early adopters of centre-pivot irrigation. The infrastructure was quickly paid for by growing lucrative poppy crops, an area that Richard and his father Bill have since moved away from due to reduced demand. The irrigated areas have been expanded and now focus on grass seed crops, canola for seed and finishing pasture. Warringa's management now sits with Richard and wife Phillipa (an agronomist), and Bill looks after another farm south of Kempton which runs sheep and is also used to move stock to pending seasonal conditions. Rainfall at Warringa is 475-550mm and varies over the very hilly property, with different climatic zones resulting in earlier and later maturing country. Richard noted that rainfall has been tending toward drier seasons. Perennial pastures are largely made up of ryegrass and phalaris, some lucerne, with annual pastures in other areas. The merinos sit at 18.5 micron. The Websters previously incorporated Dohnes genetics to increase the size of the sheep, but having done that Richard has now moved to new merino genetics. By doing this he aims to "smarten" his sheep's wool to hold up better in the weather (although it still tests well).

The remainder of our afternoon was spent with Julian and Annabel von Bibra at **Beaufront**, near the town of Ross in the Tasmanian Midlands. Their energy and drive for farming was clear from the get-go, as they invited us into the shearing shed and gave an overview of the business. Julian is the 4th generation of von Bibras at Beaufront. He and Annabel now oversee 25,000ha at multiple locations from Ross up to the north-east corner of Tasmania in Gladstone. They run 50,000 sheep (including merinos and prime lambs) and Angus cattle. Merino wool is their passion, sitting in the 17.5 micron range and selling direct to mills in Italy and Germany. Clothing manufacturers have produced lines made solely from their wool. As a result, the von Bibras have put thought into how they share the story of their farm with the end consumer, and this, along with genuine desire, has led them to make management changes relating to animal welfare and environmental outcomes. They are now accredited under the Responsible Wool Standard, have ceased mulesing and have engaged an ecologist 2.5 days p/week to focus on land management including preserving native grasslands and eucalypt trees. When asked if there was a premium selling direct to a mill, Julian advised maybe, but it is hard to quantify as they are not selling to auction as comparison. He did see benefits in woolgrowers not being solely dependent on one dominant market. Julian is hopeful for the future of wool, highlighting its versatility and the fact you can go "three days hiking with no smell!", "we could be doing something else but we love sheep". As everywhere we visited in Tassie, Julian referenced challenges sourcing labour including shearers. The von Bibras focus on providing a good work environment in their shearing shed and Julian himself takes on the role of pressing which helps him engage with the team. Beaufront has 1300ha of centre-pivot irrigation allowing them to turn off crops and finish prime lamb. In past years poppy crops drove the establishment of irrigation and helped to pay off infrastructure quickly. Drought strategy is front of mind, with 500-600 tonne of barley kept on hand in case of need. Annabel and Julian are constantly looking at options to refine or expand their business model. They are moving into Wagyu beef by crossing their Angus maidens and have implemented systems to allow them to finish cattle. Julian's closing thoughts related to maintaining the right to farm and that we need to be careful as farmers as "we think we know best, but the customer decides". With that, together we headed to the Ross pub for a meal under the stars.



Top left: Richard Webster speaks over lunch, & the group at Warringa walking through a paddock. Above: 1) Julian von Bibra showing us native grassland at Beaufront, 2) Beaufront shearing shed, 3) Will Baxter with drone thermal imaging.

Day 5: Kicked off with a sparkling wine tasting at Bay of Fires Wines north of Launceston, where one of us earned a few digs when in the midst of a lofty discussion about grapes, the winery's very stately long-haired border collie succumbed to its primal urges and marked them on the leg. Neighbouring the winery was our next farm visit, **Greenside** with Brian and Will Baxter. The father and son run an 800ha property that has been in the family since 1905. 450ha is in pasture and the rest is in native bush and tree plantations. Will has returned to the farm in the last 7 years after working elsewhere and proudly proclaimed he "loves chops, not wool". With that in mind, he transitioned the flock away from merinos to maternal composite ewes, put the "fly and foot problems" in the rear-view mirror, and set up a rotational grazing system to maximise lamb production. The flock now consists of around 3500 ewes plus 120 Angus cattle run at about 17DSE. Pastures are predominantly perennial, with an average paddock size of about 3ha. Last year they marked 4000 lambs and Will's target is to increase that to 5500 by growing more feed. Will is passionate about ag tech and demonstrated how he uses a drone to check stock during lambing, as well as an EV buggy which runs silently and reduces stock disturbance. During lambing they run 12 ewes p/ha for twins and 10 ewes p/ha for triplets, set-stocked for eight weeks, in 60 separate mobs. By using the drone, EV and a good laneway system, it takes Will about 2hrs to check them. Cold lambs are identified via the drone's thermal imaging and are sent to Will's mother-in-law who raised 40 last season. The drone cost $5,500, which Will calculated had been paid back in 1 year with ewes and lambs saved. The Baxters join in February and lamb mid-July for four weeks, followed by the ewe lambs for six weeks. They have found that having bulk, high value Food on Offer is more important for lamb survival than shelter. Will also showed us a seeder he designed for sowing into established pastures, with a mix of 15 species being used to improve the pasture. Whilst at the Baxters we also heard from Dr Rowan Smith, who leads the Feedbase & Environment Cluster within Tasmania's Livestock Production Centre at the Tasmanian Institute of Agriculture. Rowan will be visiting WA between 4th-6th July 2023 for the Australian Grassland Association symposium at UWA.



Above Left: Landfall Angus heifers. Middle: Landfall irrigated pastures. Right: Cassidy Whiting and Wes Graham in irrigated fodder beat.

Next stop was **Landfall Angus** on the outskirts of Launceston with brothers Ed and Frank Archer. We were spoilt on arrival with beef from the farm in the form of five week dry-aged steak sandwiches. Their focus is their Angus seedstock herd run over three farms, but they have diversified the business to incorporate their own butchery in Launceston. Frank gave us an overview before taking us around the farm. The Archers are 5th generation farmers, with a presence at Landfall since 1876. They run 4000ha (3000ha effective), with about 750mm rain p/annum, most of which falls during winter and spring. They currently carry over 5000 registered cattle. These are grazed on dryland pastures plus 410ha irrigation and intensive rotational grazing. Irrigation has allowed them to increase stocking rates, an area they are still focused on improving. One of their strategies has been incorporating fodder beat which they start to graze in April, it's a fodder crop that they have found presents huge opportunity but also risk. It costs over $3000 p/ha to grow in an irrigated system, can produce 30t p/ha dry matter, but is high energy and low protein and can be tough on cattle if not grazed correctly. The Archers introduce the fodder beat to cattle in confinement to adjust. Next, we visited another irrigated pasture comprised of diploid perennial ryegrass with white and red clover. It was set in 1ha blocks grazed for approximately 3 days every 25 to 90 days depending on seasonal conditions and the leaf stage of the ryegrass. Winter is the biggest challenge for Landfall when it is hard to grow feed, but their system allows them to run 18DSE p/ha at that time (60,000 DSE total). They produce 1000 bulls per year, with two sales annually. Joining is for 42 days, calving in late winter / early spring, calves are weaned between mid-January to mid-February at an average of 240kg. They also run 3000 commercial composite sheep. Frank sited people as the most important part of their business. An impressive place to visit.

Day 6: We downed farm boots and headed for a clay target range at remote Currawong Lakes Lodge, touted to be one of the best in Australia. Perhaps that's why they were so hard to hit. Clays were thrown from overhead, up in the trees, across like rabbits, all over the show, and we teamed up in pairs in competition for the glory. Berettas in hand, we stood our ground against the clays, but none could top the winning efforts of Steve & Michelle Fowler, who you would not want to come across in a dark alley. After lunch by the lake, we travelled on to stunning Freycinet National Park, where some hiked and others enjoyed sparkling at the beach.

Day 7: Our final farm visit saw us head down the east coast to **Kelvendon Estate** near Swansea, run by father-daughter team Jack & Anna Cotton. The 3000ha property has been in the Cotton family's hands since 1829 and is home to what is thought to be the oldest operating shearing shed in Australia. It was pretty special to have the opportunity to look inside, where they had brought in some stud ewes. Anna explained that the farm runs 7500 self-replacing superfine merinos with a flock average of 16.5 micron. Adult sheep cut about 5kg each p/annum, fetching around $20 p/kg. The Cottons are accredited under the Responsible Wool Standard and Sustainawool. Lambing is in spring when mobs are reduced from about 300 to 100. Wethers are retained. Diversification in recent years has seen the Cottons plant a vineyard and establish their own wine label.

Top: Kelvendon Estate shearing shed (circa 1820s). Above: Kelvendon Estate vineyard and pastures with views across the bay to Freycinet.

Down the road a little further we stopped by Tasman Sea Salts, owned by Chris & Alice Manson based on farmland leased from Mayfield Estate. Water is drawn straight from the Tasman Sea and processed to become table-ready. We were shown through the refinery before moving up the hill to Mayfield Cellar Door where we had the "salt sommelier" experience. Following that, we were fortunate to have farm owner Bruce Dunbabin join us as we tasted the Mayfield wines. Bruce took us through his journey from sheep farmer to fine wines, was extremely frank, gave great insight, and this conversation was a highlight of the trip for many. Unfortunately, we had not expected this opportunity and my notepad was out the window. So I'll leave you hanging, with the hot tip that he's worth a chat.

Day 8: After a delicious farewell dinner, we woke up on our last day to finish the trip at the farm where we began, with a helicopter flight over the Tasman Peninsula to a remote costal spot on Bangor farm, where Matt Dunbabin met us with a cup of tea, a biscuit, very special views, and more good conversation. What a way to wrap things up and say farewell to Tasmania. A great trip, with even better company.

Below left: Bangor via helicopter. Below right: Freycinet National Park.


South Coastal Agencies

Esperance – Ravensthorpe – Salmon Gums

Livestock Planning & Pasture Evaluation Services

Sarina Clawson, South Coastal Agencies

South Coastal Agencies' involvement with ASHEEP on the MLA Pasture Trials, reaffirmed the value of information to the growers, especially when used for decision making.

There is a large variety of factors that can be measured or analysed, that are powerful tools to utilise when making decisions.

This can include the quality or quantity of feed and water on offer, the nutritional composition of your soils, micronutrient deficiencies in established pastures and crops, pasture growth rates, carrying capacity, drench efficacy and numerous others.

The SCA Pasture Evaluations and SCA Livestock Planner are documents developed in house, tailored to you and your livestock system, incorporating a combination of tests and analysis', relevant for your operation, in an easy-to-read format that you can refer to throughout the season.

In an industry with emphasis on adhering to best practice, the dedicated Farm Services Team at South Coastal Agencies are in your corner to support you with the information and knowledge to make educated decisions that fit within your operation.

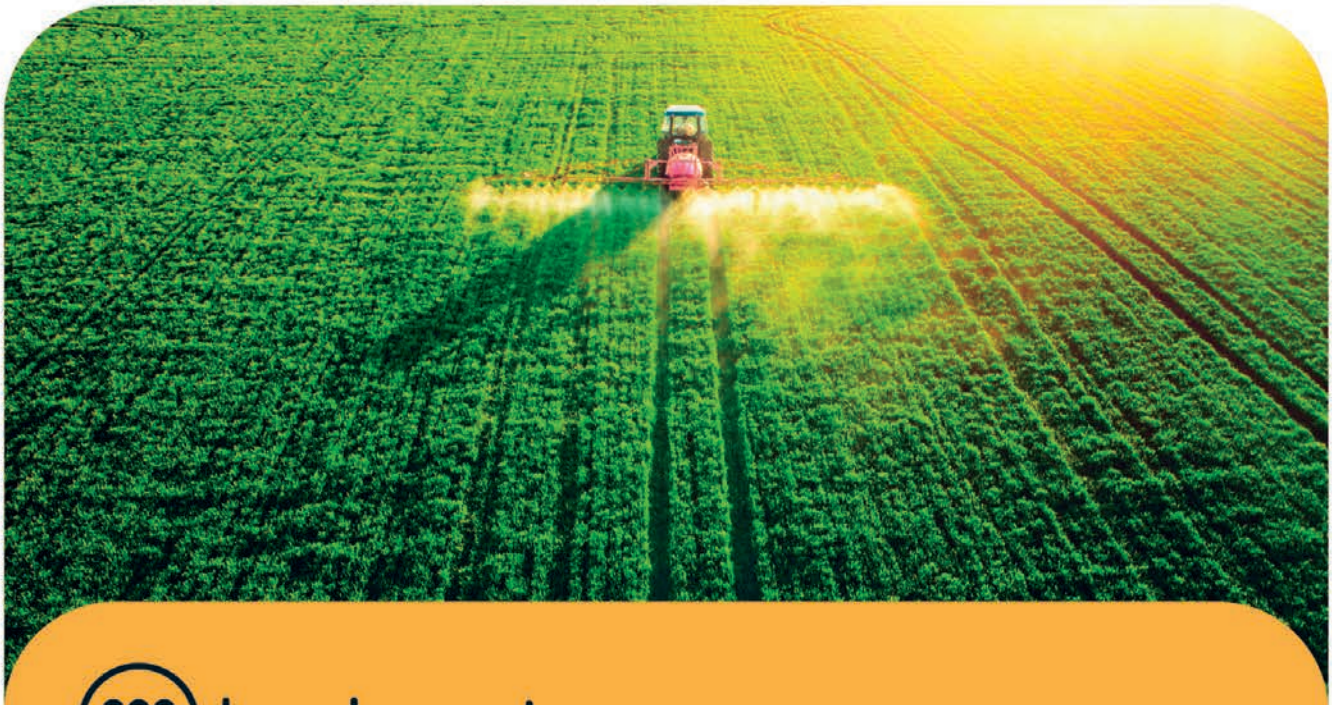
If you would like more information around these services, call one of our team today!

Chad Hall - 0448 404 614 | Mark Paini - 0438 979 988 | Sarina Clawson - 0436 123 934

- Feed & Forage Testing
- Feed Budgeting
- Water Quality Testing
- Pasture Monitoring
- Soil Testing
- Worm Egg Counts
- Plant Tissue Testing
- Laval Differentiation
- Stocking Rate Analysis
- Drench Efficacy Testing

Agronomy | Rural Merchandise | Chemical | Animal Health | Fertiliser | Real Estate

Find us on Facebook



bankwest
for business

Understanding local business.

Whether you require day-to-day banking support, or a customised banking solution - we're here to help.

Our Bankwest Business Relationship Managers have an in-depth understanding of the local areas and industries they work in. Working closely with you, they are committed to delivering innovative banking solutions to help you reach your business goals.

Speak to your local Business Relationship Manager today

Anna Voice
Relationship Manager
Rural & Regional

Shop 20, Level 1 Dutton Arcade,
Esperance WA 6450
0472 863 563
anna.voice@bankwest.com.au
bankwest.com.au

Rebecca Cole
Relationship Manager
Rural & Regional

Suite 20, Level 1, Dutton Arcade,
Esperance WA 6450
0472 879 085
rebecca.cole@bankwest.com.au
bankwest.com.au

Changes to pain relief availability for lamb marking

Katherine Davies, DPIRD Northam, WA, katherine.davies@dpird.wa.gov.au

The poison scheduling for some pain relief products used in lamb marking have changed, making them now available through agricultural resellers in addition to remaining available through veterinarians.

Meloxicam and lidocaine pain relief products for lamb marking were previously Schedule 4 poisons and only available via prescription from a veterinarian who has a bona fide professional relationship with the producer.

Oral transmucosal (OTM) preparations containing 1% meloxicam are now Schedule 6 poisons. These products include Buccalgesic®, which remains available through a veterinarian, and a new product, Butec®, available through agricultural resellers both in store and online. Meloxicam is a non-steroidal anti-inflammatory drug (NSAID) and works by blocking an enzyme involved in inflammation, providing all-over pain relief. OTM meloxicam is used for pre-surgical treatment and pain management in lambs during routine husbandry procedures including castration, tail docking and mulesing. It is administered orally into the cheek pouch and absorbed through the inside of the cheek.

NumOcaine® is now a Schedule 5 poison, containing 2% lidocaine and is packaged in a container with a tamper resistant cartridge which can only be dispensed through a rubber ring (NumNuts®) applicator. NumOcaine® remains available through veterinarians but is now also available through agricultural resellers both in store and online, or through the manufacturer's website. Lidocaine (also known as lignocaine) is an anaesthetic drug and has a numbing effect on the area it is injected, either the tail and/or the testicles. NumOcaine®, used with the NumNuts® applicator is suitable for tail docking and castrating lambs using rubber rings.

Scheduling for Tri-Solfen® remains unchanged, and it is still available through agricultural resellers. The scheduling for injectable meloxicam products (available under various brands) also remains unchanged, and these products are only available via a prescription from a veterinarian who has a bona fide professional relationship with the producer.

Painful husbandry procedures, such as mulesing, castration, tail docking, earmarking or ear tagging, may be performed at the same time. In this situation, the best pain relief strategy is to use a 'multi-modal' approach which is a combination of a local anaesthetic product (for example Tri-Solfen® or NumOcaine®) and a NSAID. If using a NSAID, use either an injectable meloxicam or oral meloxicam – but not both.

Products should be applied according to the manufacturer's recommendations, before, during, or immediately after the painful procedure. This 'multi-modal' strategy relieves immediate pain associated with the procedure as well as longer lasting pain associated with inflammation and healing.
For more information, visit the department's Best practice marking of lambs webpage.

Autumn Field Day

Sarah Brown, ASHEEP

The year seems to have rolled around quickly after the delays in last season's harvest, before we knew it we were gathered in the paddock on 30th March for ASHEEP's Autumn Field Day, with seeding knocking at the door.

The day started off at Condowie Park in Coomalbidgup, where Tihan Gilliomee ran us through how he had been incorporating lucerne in the program to produce high protein pastures over summer until early winter. This means that they can drop crossbred lambs in February/March on green feed, and market them at the end of July/early August. Tihan showed us a paddock of the Q31 variety established in 2020, sown on the 05/09/20 at 5kg/Ha and 10kg/AL alosca. It was established with a clearfield canola (44Y94). Mid-winter they clean the lucerne with a Paraquat or a selective chemical.

We then had a follow-up discussion on lucerne with agronomist Theo Oorschot (Esperance Rural Supplies) who covered autumn sowing vs spring sowing, seeding depth, herbicide options, the new acid tolerant rhizobia, winter active vs summer active varieties, fertiliser requirements and options for bulking up with grasses.

Above: Lucerne at Condowie Park. Left: Theo Oorschot discussing lucerne. Bottom left: Brad McCormick & Andrew Longbottom speak on the coming introduction of compulsory eID tagging in sheep.

Next stop was at the Esperance Downs Research Station, leased by Josh & Tegan Sullivan, who set us up in their shearing shed for lunch and presentations. Thanks to the Sullivans, and to Gibson Football club for lending us chairs.

Here we heard from Andrew Longbottom (DPIRD) who gave an update on WA's progress toward the introduction of compulsory Electronic identification (eID) tagging in sheep and goats by 1st January 2025. From that date, under the current implementation timeline, newborns and animals leaving the property will need to be eID tagged with an NILS approved tag. This means that producers are looking at eID tagging those lambs they plan to retain this coming marking. Andrew explained that DPIRD has commenced a Tag Incentive Payment discount (75 cents per tag) to support producers with the transition. It will be applied by the tag manufactures (more info on page 16 - 17).

Concern was raised by producers who have already been using eID tags that they would have to cut old tags out. DPIRD confirmed that anyone ... [cont'd]

with existing accredited NLIS eID tags of any colour in older sheep at 2025 do NOT have to remove and replace them. Anyone with UNACCREDITED eID tags in their sheep will need to remove and replace them. A list of eID devices that are currently fully accredited for use in the NLIS can be found on the Integrity Systems website www.integritysystems.com.au. For other questions and more information visit the DPIRD website and search for the "Electronic identification for sheep and goats" page, call 1300 926 547, or email nlis@dpird.wa.gov.au.

Next up was a presentation by Brad McCormick from eID tag supplier Shearwell, who has recently joined ASHEEP as a Gold Sponsor. Brad advised that Shearwell had been gearing up for increased demand and had plenty of tags available with a quick turn-around, but encouraged producers to order early as it was anticipated that wait times could increase up to a few weeks as marking season arrives.

Pasture researchers Dr Daniel Real and Dr Angelo Loi (DPIRD) then took the floor and gave an update on the FEED365 Project, alongside Josh Sullivan who is hosting two demonstration sites at the Research Station targeting early feed. This year one of the sites is going into crop and may be used for crop-grazing. The second site was split in half and sown into two experimental pasture mixes on 22/02/23 (see page 34). Agronomist Giles McMeikan (Farm & General) shared details of the trial they have sown in that paddock to show performance of individual varieties in the mixes alongs side other early feed options. Our thanks to Farm & General for setting this up. We had hoped to swing by the paddock and take a look, however the rain gods had not played along with our field day planning and there was minimal germination at that point.

Our final farm visit took us to The Oaks in Dalyup, where Mitchell Greaves met us to look at the FEED365 tedera demonstration site being hosted there (see page 34). The tedera was starting to lift and will be grazed soon.

Whilst at The Oaks we heard from producer Alan Hoggart and David Howey (Elanco). They shared the results of a 2022 pre / post drench check, that had led them to conduct a full drench resistance test in January 2023, completed as part of the Elanco "Zolvix Plus Challenge". Alan runs Ultrawhite sheep on kikuyu based pastures on the coast in Condingup. He explained that he rotates drenches, but that the test results came back showing worm resistance to a range of actives. Armed with this information he saved a lot of money and production loss by avoiding using an ineffective drench. They encouraged others to check drench performance. Elanco is running the Zolvix Plus Challenge again in 2023 and will cover the cost of testing regardless of the drench you use.

Sophie Willsher from South Coast NRM then gave an update on their projects and ASHEEP thanked her for supporting the Autumn Field Day with a $500 grant.

The day wrapped up at the Gibson Soak Hotel where Tori Kirk (Australian Wool Innovation) updated us on AWI's latest biological defleecing research showing promising results that they hope will have a commercial application in five years' time. Tori advised that AWI is pushing hard to progress this research to alleviate the challenges placed on wool producers due to the shearer shortage. Tori also spoke on shearer training, modular raceway designs and the latest wool marketing campaigns.

Below: Dave Vandenberghe (ASHEEP Chair) introduces Tori Kirk (AWI). Below right: Alan Hoggart & David Howey present on drench resistance. Right: Tedera site in Dalyup.

Feed365 Sites: 2023 plans

Sarah Brown, ASHEEP

The Feed365 Project is a collaboration between the Department of Primary Industries & Regional Development (DPIRD) and Meat & Livestock Australia. The purpose is to research and redesign livestock forage systems to fill feed gaps, develop new feed base options and integrate them into grazing systems. ASHEEP is coordinating three demonstration sites in the FEED365 Project between 2022-2024. Two are hosted by Josh & Tegan Sullivan at the Esperance Downs Research Station in Gibson and the third site is hosted by Mitchell Greaves & Demi Vandenberghe at The Oaks in Dalyup. Following is an outline of the demonstration site plans for 2023. You can find more information and a report on 2022 results at www.asheep.org.au/feed365.

Esperance Downs Research Station Demonstration Sites - Gibson

Demonstration Site 1 (Paddock "E2")

- **Profile**: Soil samples 0-40cm, sand to sandy loam, 5.9-6.4 pH(w)
- **Paddock History**: Regenerating pasture of rye grass, sub clovers, capeweed.
- **2022**: This site was split in half and sown into a pasture mix with two different seeding rates.
- **2023**: The site is to be cropped into cereal as part of the Sullivan's cropping program. There is potential for a crop grazing demonstration depending on seasonal conditions.

Demonstration Site 2 (Paddock "N4")

- **Profile**: Soil samples 0-40cm, loamy sand / sand, subject to waterlogging, 5.7-6.2 pH(water)
- **Paddock History**: This was a long-term regenerating pasture paddock including brome grass, silver grass, geranium, rye grass, sub clovers.
- **2022**: The site was sown into a pasture mix (37 kg/ha plus 20 kg/ha Alosca rhizobia inoculum, varieties included Vortex Tetraploid Ryegrass 10kg, Balansa Clover 2kg, Express Forage Oat 15kg, RM4 Vetch 10kg, Alosca FE 10kg, Alosca C 10kg). The paddock was split in half, with one half grazed and the other kept for hay.
- **2023**: Site split into halves (7ha each) with an electric fence, with the fence running the opposite way to how the paddock was divided in 2022. Two experimental pasture mixes were sown on 22nd February, ideally to provide autumn feed, spell over winter and then graze again through late spring. Sheep measurements (weight, condition score) will be taken at the commencement of the grazing and every six weeks until grazing is finished, pending seasonal conditions. A final weight and condition score will be taken at the end of the grazing. Pasture cuts will be taken at the start and end of grazing. Mix 1: Express Oats @ 32kg/ha, RM4 Vetch @ 26kg/ha, Balansa @ 1.4kg/ha, Alosca C & F/E - not applicable. (Alosca Group C for balansa & Group F/E for vetch not needed as residual from previous year's application). Mix 2: Tetila ryegrass @ 10.7kg/ha, Margurita / Cadiz serradella pod mix @ 20kg/ha, Express Oats @ 43Kg/kg, Balansa @ 5kg/ha, Alosca Group G/S @ 14k/ha (for serradella), Alosca Group C not applicable (Alosca Group C for balansa not needed as residual from previous year's application).

The Oaks Tedera Demonstration - Dalyup

- **Profile**: Soil samples 0-40cm, loamy sand to clay loam, 5.5-8.2 pH(w)
- **Paddock History**: 5 ha creek-side paddock in pasture, unsuitable for a crop rotation with a sloping topography, higher rainfall and little by way of drainage issues.
- **2022**: Sown in June 2022 with Lanza Tedera 10 kg/ha, Nodulaid Tedera inoculumn. Intent was to establish tedera as a permanent pasture to graze over the summer-autumn feed gap. First establishment failed, knockdown applied, second attempt sown in September 2022.
- **2023:** Expect to graze in April 2023. Sheep measurements (weight, condition score) will be taken at the commencement of the grazing and every six weeks until grazing is finished, pending seasonal conditions. A final weight and condition score will be taken at the end of the grazing. Pasture cuts will be taken at the start and end of grazing.

Our Thanks

- Josh & Tegan Sullivan, Mitchell Greaves & Demi Vandenberghe, Mark Walter and David Vandenberghe for the time and resources they have contributed to the project.
- Neil Wandell & Esperance Quality Grains for donating the Margurita / Cadiz serradella mix.
- Nutrien Ag Solutions for donating the Tedera seed.
- Monica Field & Giles McMeikan, Farm & General, for seeding individual plots of the varieties in the mixes in 2023.
- Jake Hann, Nutrien Ag Solutions, for assisting to weigh and condition score sheep in 2022.
- Sinead O'Gara, South Coastal Agencies, for pasture analysis in 2022.

ASHEEP'S CATTLE SUB-COMMITTEE

Chair

Ryan Willing
0447 075 650, ryan.carnigup@gmail.com

Members

Enoch Bergman - 0427 716 907, enoch@swansvet.com
Simon Fowler - 0428 750 012, simonrobynfowler@bigpond.com
Wes Graham - 0427 992 793, wes.monji@hotmail.com
Jake Hann - 0429 871 707, jake.hann@nutrien.com.au
Ian McCallum - 0427 715 205, murra-murra@bigpond.com.au
Nicholas Ruddenklau - 0488 070 065, nick@epascofarms.com

UPCOMING EVENTS

- 20/04/23 - Non-Mulsed Systems producer meeting (Cascade)
- May / June - ASHEEP Cattle Field Day (date pending season)
- 22/06/23 - ASHEEP AGM & Conference (Esperance)
- 23/06/23 - WARLC Livestock Matters Forum (Nannup)
- 25-27/07/23 - ASHEEP Katanning Tour
- 4-6/7/23 - Australian Grassland Association Symposium "Pasture legumes for sustainable, productive systems" (Perth)
- 26-28/7/23 - AAABG Conference (Perth)

WALRC Newsletter

Subscribe to the WA Livestock Research Council newsletter

www.walrc.com.au
admin@walrc.com.au
0418 931 938

JUNE

Next ASHEEP Committee Meeting is scheduled for June 2023.

Contact a committee or staff member to raise an item.

YOUR ASHEEP COMMITTEE & STAFF

PRESIDENT
Dave Vandenberghe
0427 786 049
wattledale@vandenberghepartners.com.au

VICE PRESIDENT
Nick Ruddenklau
0488 070 065
nick@epascofarms.com

TREASURER
Alan Hoggart
0428 320 755
alan.hoggart@bigpond.com

COMMITTEE MEMBERS

Enoch Bergman
0427 716 907
enoch@swansvet.com

Simon Fowler
0428 750 012
simon-robynfowler@bigpond.com

Thomas Pengilly
0438 657 739
penrosepollmerino@hotmail.com

Ashley Reichstein
0427 767 020
reichsteinmcdowall@gmail.com

Josh Suillvan
0427 754 046
josh_tegs@bigpond.com

Mark Walter
0427 951 417
mark@walterag.com.au

Scott Welke
0427 792 044
scottwelke@bigpond.com

Karina West
0447 765 040
leighnkarina@bigpond.com

Ryan Willing
0447 075 650
ryan.carnigup@gmail.com

EXECUTIVE OFFICER
Sarah Brown
0409 335 194
eo@asheep.org.au

BOOKKEEPER
Jan Clawson
0407 990 497
janclawson@bigpond.com

PROJECT OFFICER
Courteney Pengilly
0450 036 093

ASHEEP SPONSORS

PLATINUM

GOLD

BRONZE

ANZ Bank | Alsoca | Aus Stock Transport | Ballard Seeds | Barenbrug
Bedford Harbour Engineering | Clearwater Motel Apartments | CSBP | Elders
Esperance Quality Grains | Farm & General | Farmanco | Clarke & Stokes Agriservices
Swans Veterinary Service | Troy Animal Healthcare | WAMMCO International | WSD Agribusiness

asheep Esperance

Association for Sheep Husbandry, Excellence, Evaluation and Production Inc.

POSTAGE PAID

PO BOX 2445, Esperance WA 6450
Contact: Sarah Brown | 0409 335 194 | eo@asheep.org.au