



FILLING THE AUTUMN FEED GAP

Second Year Case Study



This Producer Demonstration Site is funded by Meat & Livestock Australia

Project Aim

To demonstrate the potential of autumn grazed fodder crops that will provide a lower cost and more productive (measured by pasture quality, quantity, animal performance and cost benefit analysis) alternative to supplement feeding with conserved fodder for beef in the high rainfall Lower South West region in WA.



This project was also made possible with assistance from the following sponsors:

- PGG Wrightson
- Bell Seeds
- Pioneer Seeds
 - CSBP

Thankyou for your support!



Project Structure

This is a four-year project which commenced in January 2020 and will complete in December 2023. In 2020, two strip demonstration sites were established at different locations within the Lower South West region. 15 different autumn fodder varieties (and 2 mixes) in total were seeded across the two sites to see how they performed. At one of the sites (situated in the Scott River area), pasture quality and dry matter were measured and at both sites season length, timing and persistence of each variety was observed.

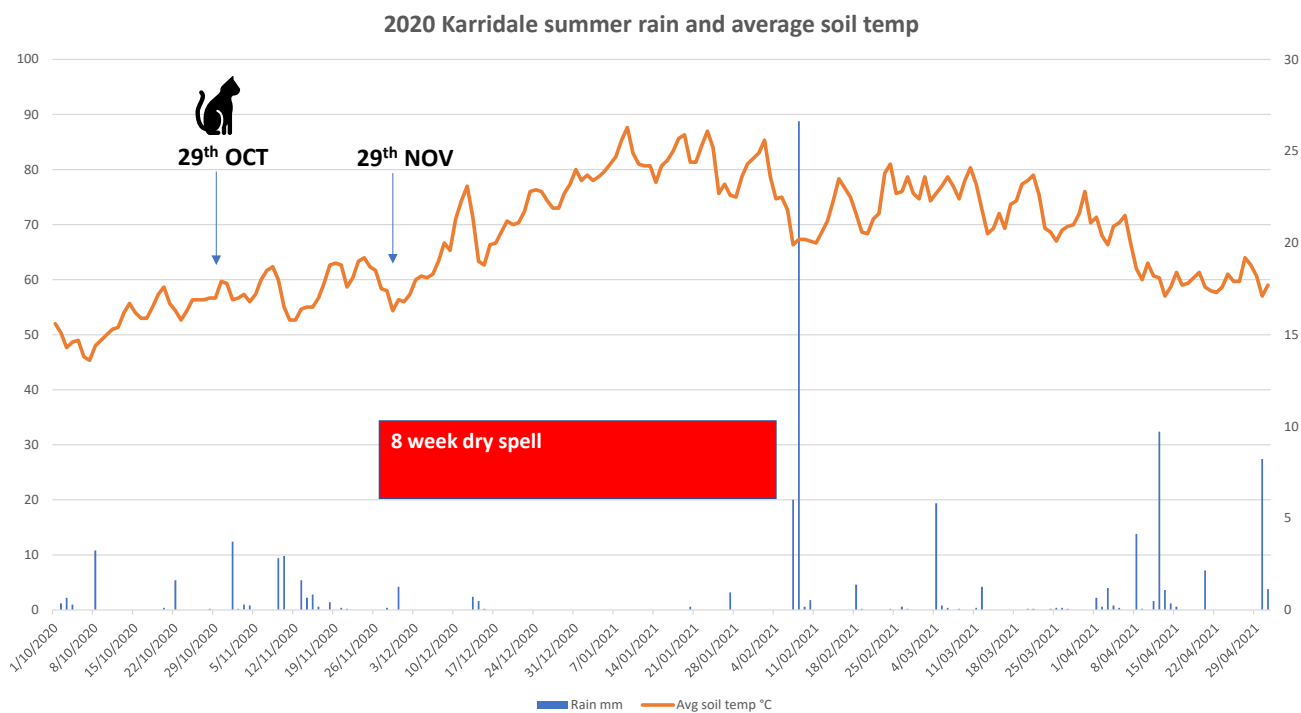
Year 2 saw 5 commercial grazing demo sites established across the Region. Each grower selected a mix of varieties to try on an area of paddock. Pasture quality and dry matter were measured at sites where possible and growers collected weight gain data from the animals that were grazed on the demo sites.



The project will also include a number of field days throughout the four years as well as case studies and a producer project guide to provide an information hub for Lower South West Growers on Autumn Fodder crops.

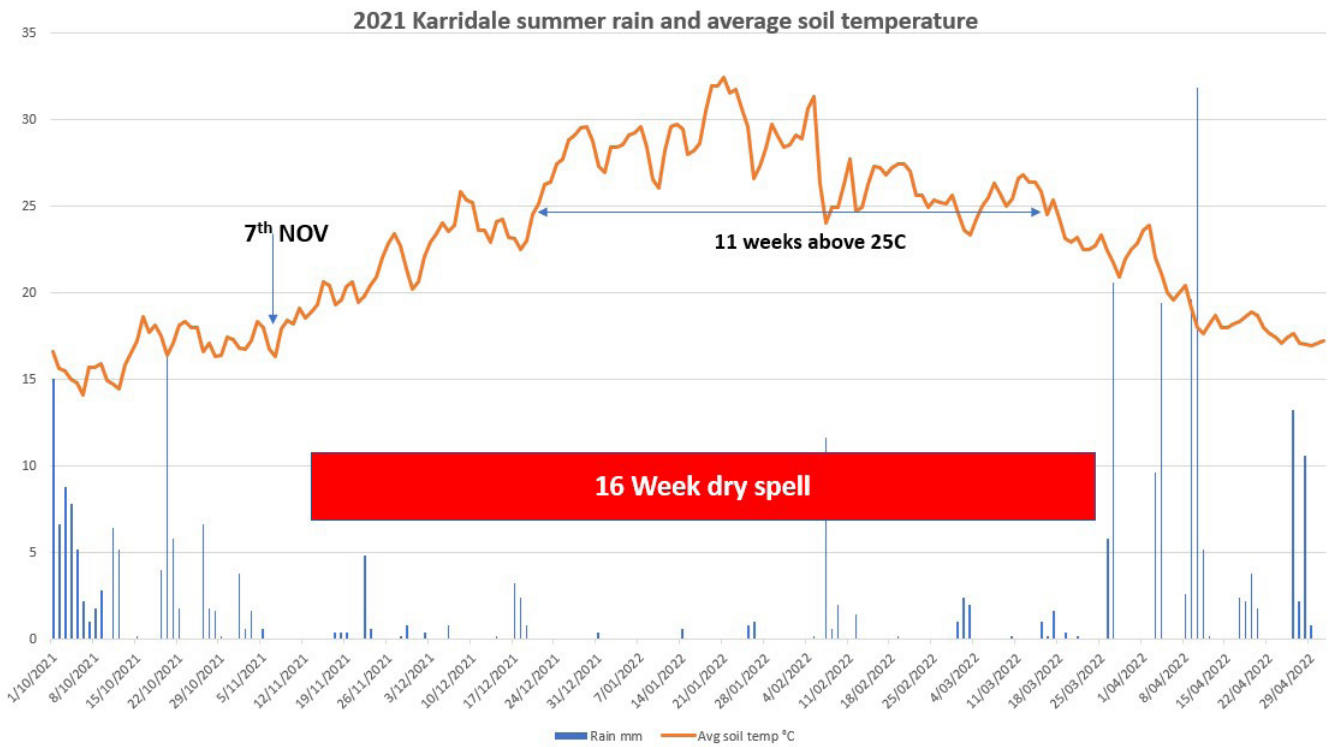
Rain and Temperature

The summer of 2021/22 was a very different season to that of the previous year's demonstration. As shown in the results in this case study, this had quite the impact on this year's demonstration sites.



The above graph shows the 2020 summer rain and average soil temp for the area.

Rain and Temperature



The above graph shows the 2021 summer rain and average soil temp for the area.

Site 1

Ben Sieber 4ha Margaret River



Seed type and rate	5kg/ha Millet + 1.6kg/ha Raphno + 1.1kg/ha forage rape + 5kg/ha ryecorn
Sowing date	18 November 2021
Cut yield (14 th FEB)	3.35t/ha
Feed Test ENERGY	9MJ/kg DM
Feed test PROTEIN	10.6%
Feed Test NDF	55%
Cattle growth rates	46 yearlings and dry heifers. 0.2kg/hd/day over 28 days in March



Ben Sieber's demo site in Margaret River - 10th March 2022

Site 2

Jeff John 8ha Karridale

The following seed was prepared for Jeff John's site:

6.25kg/ha Millet + 1.9kg/ha SSS + 2kg/ha red clover + 2kg/ha chickory + 2kg/ha buster radish

However, it was too dry to seed at the time and so this site will be postponed until the 2022/23 season.





Preparing the seed at Jeff John's site

Site 3

Simon Creagh 5Ha Nillup



The planned paddock was too dry to sow so the demo site was moved to a wet area of a different paddock.

Seed type and rate	12kg/ha Millet (50% germ) + 2kg/ha SSS + 2kg/ha forage rape + 2kg/ha red clover
Sowing date	2 nd December
Cut yield (19 th JAN)	0.48t/ha (ave) – 1.2t/ha (good)
Feed Test ENERGY	9.5MJ/kg DM
Feed test PROTEIN	16.6%
Feed Test NDF	57%
Cattle growth rates	17 yearlings. 0.8kg/hd/day over 30 days mid Feb to mid March



Checking the demo site at Simon Creagh's - January 19th 2022

Site 4

Andrew McNab 10ha Scott River East



Seed type and rate	4kg/ha millet + 4kg/ha SSS or 4kg/ha sorghum
Sowing date	13 th November
Cut yield (19 th JAN)	0.3t/ha
Feed Test ENERGY	9.3MJ/kg DM
Feed test PROTEIN	16.6%
Feet Test NDF	57%
Cattle growth rates	63 mixed weaners. 0.9kg/ha/day on Silage in Jan. Went backwards on millet would not eat silage provided. Removed after 2 weeks and back on silage only.



Andrew's demo was an interesting comparison site as he hosted one of the first year demo sites as well. It was very clear the impacts that very different seasons can have. These two photos show Andrew's demonstration site on the 19th of Jan 2022 (top photo) and Andrew's demonstration site the previous year on the 1st of March 2021 (bottom photo)

Site 5

Daryl Avery 55ha Scott River East



Seed type and rate	4kg/ha millet + 4kg/ha SSS or 4kg/ha sorghum
Sowing date	13 th November
Cut yield (19 th JAN)	0.3t/ha
Feed Test ENERGY	9.3MJ/kg DM
Feed test PROTEIN	16.6%
Feed Test NDF	57%
Cattle growth rates	63 mixed weaners. 0.9kg/ha/day on Silage in Jan. Went backwards on millet would not eat silage provided. Removed after 2 weeks and back on silage only.



Daryl's demo site - 19th Jan 2022

Cost/Benefit: Cost per tonne of Dry Matter

		Total Input Costs (\$/ha)			
		\$150	\$300	\$450	\$600
DM Yield (t/ha)	2	\$75	\$150	\$225	\$300
	4	\$38	\$75	\$113	\$150
	6	\$25	\$50	\$75	\$100*
	8	\$19	\$38	\$56	\$75
	10	\$15	\$30	\$45	\$60

*Above figures based on Silage costs of aprox \$100/t DM to conserve

Cost of Production & Profitability

Operation	Ben	Jeff	Simon	Daryl	Andrew
Spray	\$25	\$25	\$25	\$25	
Mouldboard				\$100	
Cultivate	\$20			\$40	\$40
Level				\$10	\$10
Drill	\$15		\$15	\$15	\$15
Seed cost	\$97		\$124	\$45	\$66
Fertiliser				\$225	
TOTAL (\$/ha)	\$157	\$25	\$164	\$460	\$91

Cattle production	Ben	Jeff	Simon	Daryl	Andrew
Kg/hd/day	0.2	0	0.8	1.26	0
\$/ha @\$6/kg lwt	\$332	0	\$596	???	0
Profit/loss \$/ha	\$175	-\$25	\$432	???	-\$91

Summary - 2nd year learnings

- In a very dry warm summer profitability was variable.
- Summer fodder species can be opportunistic or grown for the benefit of the following winter pasture production.
- Timing important to get the crop up and able access spring moisture as profile dries. Follow-up rains are needed to get big crops.
- Silage can grow animals at similar growth rates
- Work on seeding rates to reduce risk



