

GRAIN & GRAZE 2 CASE STUDY

Grazing crops a winner for supplementary feeding

*Written by Sam Taylor, AgVivo farm consultant
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Profile

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Name of farmer/s: Owned by Julian Walter and managed by Mike Cameron

Location: "Cherylton Pty Ltd", Kojonup WA

Farm Size: 9500ha

Annual Rainfall: 450 mm

Soil Type: Gravel loam

Enterprises: cropping and sheep

"Strategic supplementary feed" is how Cherylton farm manager, Mike Cameron describes the feed he has utilised from grazing crops.

Cherylton Farms is a 9,500ha mixed farming business in the Kojonup Shire in Western Australia. With such a large land base and significant cropping and sheep enterprises on the farms, it means the various components of the business need to be complimentary in order to maximise profit opportunities in today's economic farming climate.

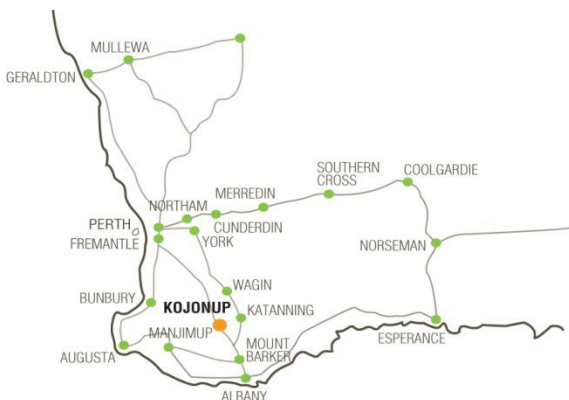
"Supplementary feeding even one class of our sheep flock can mean a significant volume of grain is required, so if we can utilise feed in the paddocks, and not impact on the success of the cropping business, it's a win-win situation," Mike said.

Mike first began to graze crops in 2011, a season in which barley, wheat and canola were grazed. Mobs of ewes were combined to enable the appropriate grazing pressure to be applied to the larger paddocks found on the property.

"We had mobs of 3000-5000 sheep grazing crops for 7-10 day periods, and we learnt a lot from the exercise," said Mike.

Grazing cereals brings out the ryegrass

"Cereal crops certainly gave us the ability to reduce supplementary feeding prior to lambing, and allowed the pasture feed to get away, but we discovered some unexpected problems too.



Unfortunately we stirred up the ryegrass seed between the crop rows with the higher stocking rate from the larger mobs, and this has made the ryegrass difficult to control and hence keep the crops as clean as we would like them,” Mike said.

The Grain and Graze 1 project identified that crop grazing should only occur in weed free paddocks for this reason, but in some cases, the extra grazing pressure reveals a higher weed pressure than is thought to exist in a paddock.

Canola grazing suits system

Grazing canola was more successful for Mike, and the strong weed control options available in the Triazine Tolerant canola system enabled grazing to be easily implemented.

“We manage to keep the canola crops a lot cleaner and we have better herbicide options, stated Mike.

“We also like the early vigour of some canola lines, which in turn produce large amounts of feed when we need it most.”

In 2011, with the expertise of a local farm consultant, a Grain and Graze grazing crops demonstration site was also established in a TT canola crop which consisted of two 8 hectare paddocks side by side.

The sheep move in a little late

Grazing commenced later than the recommended timing in this demonstration, as the animals were introduced after early spikelet development was occurring in the canola plants. Early spikelet development is the recommended time to withdraw sheep from the crop.

The 1700kg/ha of feed on offer when the stock were introduced provided good grazing for 300 pre-lambing 2 year old ewes for a period of 7 days. This was grazed down to a residual value of 550 kg/ha of dry matter.



ABOVE: Measuring dry matter prior to the putting the sheep onto the canola.

There was evidence of a lot of wasted plant material that had been trampled by the stock and hence the utilisation of the dry matter would not have been as high.

Crops grazed at the correct stage (5-6 leaf onwards and well anchored in the soil) will offer a lot higher level of utilisation and less crop wastage.

In total there were 373 grazing days per hectare achieved, which could have been greater if the sheep were introduced earlier and they were not damaging the flowering spikelets while grazing.

Where the flowering spikelets were grazed or damaged, the plants responded by increasing the number of spikelets per plant from 1, to between 2 and 4 and the increase helped compensate the grain yield.



Grazing had little impact on yield

Plant height was visually assessed two months after grazing, and there was no observable difference. What was evident at this stage was a slight delay in crop maturity which was estimated to be 7-10 days later.

Due to favourable spring conditions and good season ending rain, there was no significant difference in grain yield between these paddocks, although the grazed area yielded 80kg/ha less than the ungrazed.

ABOVE: The canola post grazing. A farmers' worst nightmare, if it wasn't planned.

Table 1 Grazing days achieved during the year from the canola paddock and calculated returns from this grazing

Area Grazed (ha)	Sheep Type	Date in	Date out	Grazing Value*	#	days	DSE Grazing Days/ha**	Grazing Income (\$/ha)***
9	Ewes (Late Pregnancy)	Jul 6th	Jul 13	1.6	300	7	373	\$ 51.10

*= A grazing value of 1 equates to a full grown sheep (1 DSE)

**= 365 DSE Grazing Days/ha = 1 DSE annual carrying capacity.

*** = Costings were based on canola price of \$540/t and sheep profit of \$50DSE

The economic analysis revealed that the grazed area achieved a slightly higher gross margin at the time, but the recent decline in sheep prices may lead to a different result. Careful analysis of the scenario on individual properties is required to determine if grazing crops will be profitable for the business.

Table 2 – The economic analysis of the grazed canola crop versus ungrazed

Yield kg/ha & Grain Income(\$/ha)		Variation (\$/ha)	Costs (\$/ha)	Grazing Value	Ungrazed Profit (\$/ha)	Grazed Profit (\$/ha)	Variation (\$/ha)
Ungrazed	Grazed						
1730 kg/ha \$934.20	1680 kg/ha \$891.00	\$ 43.20	\$ 363.73	\$ 51.10	\$ 570.47	\$ 578.40	\$ 7.93

Upon reflecting on the trial, Mike said he gained a greater understanding of the resilience of canola in the ability to recover from grazing and indicated next time he would introduce the sheep at an earlier stage of the crop.

He said he would not graze cereals again but would continue to graze canola where necessary in future years.

Mike found that hosting a Grain and Graze demonstration site was a great way to learn more about grazing crops with access to the latest information from program along with adviser support throughout the season.

He said the field walks during the year were really useful as they allowed other growers from the region to challenge him with some of the aspects of crop grazing that he may not have anticipated himself.

“I now have a lot better understanding of the do’s and don’ts in grazing crops and the confidence to graze them when the opportunity arises, and if extra feed is required”, Mike said.



LEFT: Farmers discussing grazing crops at Grain and Graze field walk.

Acknowledgments



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