

GRAIN & GRAZE 2 CASE STUDY

Lifting whole farm profits at Howick



Written by Julia Ashby, South East Premium Wheat Growers' Association
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Profile

Fowler Family

(Andrew & Marie, Simon & Robyn, Tim & Kath, Richard & Elaine)

Location: 'Chilwell' Howick, East Esperance, Western Australia

Farm Size: 16,500 ha

Annual Rainfall: 500 mm GSR

Soil Type: Mainly duplex sand over clay, with depth of sand varying from a few inches to a few feet

Enterprises: Cropping 10,000 ha
Grazing 6,500 ha

ABOVE: Andrew Fowler standing in canola that has recovered well in 30 days following grazing. The paddock was grazed by 2300 ewe hoggets and 40 cows with calves for 7 days from 14th – 20th July. This equates to 40 DSE/WGH and Andrew estimated they took off 420 kg dry matter per hectare.

The Fowler family started grazing crops in 2008 as a trial before fully incorporating into their farming system in 2010. In 2011 they cropped 10,000 ha of wheat, barley and canola, of which more than half of that was grazed.

Andrew Fowler said grazing crops had delivered a major lift in the profit of their operation and that it was one of the best innovations they had implemented on the farm.

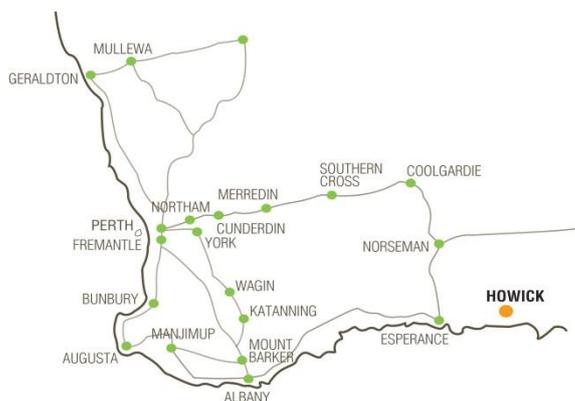
"We first tried it to make the pasture phase of our rotation more profitable and comparable with the cropping phase," Andrew said.

"Previously we were looking at about \$200/ha gross profit which wasn't much when we compared it to cropping, which was about \$500/ha.

"We needed to lift our stocking rate to increase our return per hectare to make grazing worthwhile, as well as to help recover some of the fixed costs associated with livestock and maintaining pasture paddocks."

By using grazing crops, the Fowlers have now managed to lift the pasture phase to \$350/ha gross profit and nearly double their stocking rate from 10 DSE (dry sheep equivalent) to 18 DSE.

In 2010 they increased their net profit by \$500,000 by growing an extra 1,000ha of crop and retaining their livestock numbers.



Grazing crops is a really important tool in matching the supply of feed to livestock demand, and it has helped the farming business to harness the synergies between livestock and crops.

“As a result we have had some great benefits with live-weight gains, higher stocking rates, cost savings, crop management advantages and more: all with little impact on crop yields at harvest,” Andrew said.

Benefits of grazing crops

“Grazing crops significantly reduces the levels of disease in barley (especially powdery mildew) when compared with ungrazed crops, which eliminates the need for an early fungicide spray,” Andrew said

“In our canola crops, the height of the crop is shortened which makes swathing and harvesting a lot easier. In 2010, the height of the crop dropped by a foot as a result of grazing.”

Yield and quality are not compromised as a result of grazing. In 2010 the Fowlers’ highest yielding paddocks were grazed, a wheat heat paddock went 4.7 t/ha and a grazed canola paddock yielded 2.1t/ha. The quality was excellent with 45% oil and 0.6% admixture.

Andrew said an additional benefit is less grain is required for supplementary feeding. We wouldn’t be able to maintain our livestock numbers if we didn’t graze our crops.

“We would have to feedlot the sheep and cattle, or decrease our numbers which would reduce the profitability of our pasture phase and this was the main reason for heading down this path in the first place”.

The Fowlers have had excellent live weight gains from grazing crops. For sheep, they average about 300 grams/head/day and 1.8 kilograms/head/day for cattle.

In 2011, their drop of crossbred Merino White Suffolk lambs only spent five days grazing pasture before the first draft was sold on 8th August at 18.1 kg for \$118 a head. (The rest of their lives were spent grazing crops.) The ewes lambed in stubble before grazing a barley crop at the three leaf stage. The lambs were weaned at six weeks, the ewes were sold, and the lambs continued to graze crops.

Challenges

Andrew said at the start, the hardest part was to open the gate and let the stock into a good looking crop. But he was amazed how quickly the crop recovered.



ABOVE: Sheep in canola – Sheep happily grazing in the canola.

Other challenges the Fowlers have faced and, that Andrew stressed, were very important for the system to work, were

- the early seeding of crops
- good weed control
- a good rotation.
- providing ad-lib straw for livestock, and
- not over-grazing the crops (important to know your crop growth stages).

Crop stages and management

Livestock are removed from crops at the first hollow stem (around Zadocks GS 30) in cereals, and with canola, stock are removed when the buds are about 10cm high and there are a few leaves left.

“The best results are achieved when you don’t take all the biomass away – you can graze to the white line (when there is no green left) but we have found that the crop is a lot slower to recover if you do this,” Andrew said.

They have found the early sown crops handle grazing well, but the flowering date of the later sown crops is pushed back a bit too far (and the yield affected) without careful grazing.



ABOVE: A trial at Fowler’s farm at Howick that shows grazed canola on the left, versus ungrazed on the right.

The Fowlers finish grazing most paddocks by end-July and the latest date is early-August.

After livestock are removed, the Fowlers immediately spray with a Nitrogen (N) application. Once a new leaf has fully emerged, barley crops are sprayed with a broadleaf and powdery mildew spray, and Roundup Ready Canola is sprayed (being careful to manage withholding periods if crops are to be grazed post-spraying).

The Fowlers admit the big advantage for them is the lack of frost occurrences in the region, which allows their crops to recover quickly.

Pasture tips

The Fowlers continue to strategically rest and graze their pasture paddocks while grazing crops.

“We don’t lock up our pasture paddocks otherwise the cape weed gets away on us,” Andrew said.

“If we continue to use our pastures, we find that it increases the quality and quantity of feed for August when we start fulltime grazing, and the pastures are able to support the higher stocking rate.”

Acknowledgments



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