

## Pasture cropping boosts feed at Humula

*Bundle Lawson*

Pasture cropping is a technique of sowing crops into living perennial (usually native) pastures and having these crops grow symbiotically with the existing pastures.

Since the 1990s, Colin Seis has been perfecting this technique and achieving significant environmental health benefits and yields from the cereal crops.

The original concept of pasture cropping was to sow crops into a dormant stand of summer growing (C4) native grass, like red grass. This was particularly appealing to for producers in summer-dominant rainfall areas, as a cereal crop such as oats could be grown without destroying the perennial pasture base, providing year-round stock feed.

However producers in South Australia, NSW and Victoria have also achieved good yields when sowing oats into winter-active (C3) perennial grass pastures, sparking an interest in pasture cropping among southern producers.



*Col Seis (left) and Len Ellis taking questions at the “Practicalities of pasture cropping” workshop held in Humula, 2014*

### ***Local experience***

Humula Station property manager Len Ellis decided to experiment with pasture cropping during 2014, with the aim of increasing the paddock feed available for steers so they could be run through to feedlot weights.

The 890 hectare property is run as a beef breeding operation, turning off about 350 steers each year. The property has an average annual rainfall of 32 inches (800 mm), with a slight winter-spring dominance.

“We started pasture cropping last year really just to boost pasture production, rather than with the aim of harvesting the cereal crop for grain,” Len said. “We also hoped it would improve soil health in some of our more run down pasture paddocks.

### ***Sowing techniques***

“In mid-March 2014, we planted a mix of annual species into 80 hectares of phalaris and clover-based pastures. The mix included Bimbil oats at a rate of 60 kilograms per hectare, and a combination of Saia oats, winter ryegrass and various clover species at a total rate of 15 kg/ha.

“Rather than spraying out any of the paddocks before sowing, we instead used the stock on hand to heavily graze the paddocks, with the cattle grazing right up until the day the machine went in.

“We used a contractor to plant the mix using a disc machine, and all the pastures were sown with MAP fertiliser at a rate of 90 kg/ha. They were also sprayed at sowing with Talstar for Red Legged Earth Mite control.

### ***Pasture performance***

“The new pasture species established well after good autumn rain during 2014, and we were able to start grazing the first paddock after eight weeks with a mob of 300 steers. The paddocks were grazed under a rotational system, with the steers staying in each paddock until there was about 1,000 kg/ha of dry matter left.

“We top-dressed the paddocks with urea at a rate of 100 kg/ha after the second grazing in late July.

“Each paddock was grazed three times in the rotation until late September. The steers were sold during October at 12-14 months of age and weighing at least 450 kilograms. The average weight gain for the entire mob while they were grazing the pasture-cropped paddocks was 2.3 kilograms per head per day. Once the steers were sold, these pasture paddocks became part of the rotation for the breeding herd, as we didn’t cut any hay or silage as the property was going on the market.”

### ***Into the future***

Humula Station is now under new ownership, but on the strength of the performance of last year’s pasture cropped paddocks, Len says they will be planting annual ryegrass into about 120 hectares of established pastures which are predominantly phalaris and clover.

“I started planting winter ryegrass this year with a disc machine on the 8th April [2015] at a rate of 20 kg/ha. “Fertiliser was spread at 150 kg/ha as a mix of single super, 0.025% Molybdenum and potash. Lime was also spread at a rate of 2.5 t/ha.”