

## Case Study

### Summer-active pastures provide flexibility

#### farm info.



**Producer:** Craig & Woody Oliver

**Location:** 'Wandobah', Dunkeld, south-west Victoria

**Property size:** 930 ha

**Soils:** Basalt loams over buckshot clay and some Grampians sands

**Enterprises:** 6000 fine wool Merino's, 850 Merino's for 1st cross lambs, 600 Friesian bull calves (for bull beef)

**Pastures:** 300 ha of native pasture, 450 ha of improved pastures - plantain, sub clovers, chicory and tall fescue

**Integrating summer active grasses and herbs into phalaris and sub clover pastures has enabled Craig & Woody Oliver to increase the farms stocking rate and reduce the workload. Utilising out of season rainfall with summer active perennials has improved live weight gains for weaner stock in all three enterprises at 'Wandobah' in south-west Victoria**

"Wandobah is situated south of Dunkeld. We are lucky to have picturesque redgum woodlands with Mt Sturgeon, Mt Abrupt and the Grampians Ranges as a permanent backdrop. The property is densely timbered with around two mature redgums (*Eucalyptus camaldulensis*) per hectare across the paddocks.

The ongoing health of our natural resources factors significantly in farm decision making and planning. We think it is important to manage our property to improve profitability and labour efficiency whilst simultaneously improving the health and diversity of the farm ecosystem.

Sowing summer active perennials has achieved both these aims by increasing stocking rate and reducing the need for supplementary feeding over the summer to autumn period.

Grampians sands make up 25% of the property, the remainder being basalt loam over buckshot clay, with perched water tables and water logging common in wetter years.

Prior to the improvement program, pastures predominantly contained annuals and were highly degraded by large amounts of onion grass (*Romulea*

*rosea*) and silver grass (*Vulpia spp.*).

The property also contains areas of native grasses which are managed with rotational grazing.

Being involved as an EverGraze Supporting Site from 2008 has given us the opportunity to trial Summer Active Tall Fescue. We sowed it in spring 2008.

It carried 15 DSE/Ha in 2009. In comparison, our degraded native pasture only carried 8 DSE/ha and an established chicory, plantain and sub clover pasture carried 18 DSE/ha in 2009.

There is usually significant rain from a thunderstorm at some stage over the summer period and the plantain and chicory really respond to this.

Last summer in 2010, we had good rains and by the time we had trained the Merino weaners to barley, we had no need to continue supplementary feeding them as they had 2500 kg of chicory, plantain and tall fescue in front of them.



Craig and Woody Oliver

#### key points

- Summer active perennials provide high protein and energy green feed during the November to March period.
- A permanent perennial pasture mix can take advantage of rain whenever it falls
- Summer active perennials has improved live weight gains for weaner stock.

*“Utilising out of season (summer) rainfall with summer active perennials has improved live weight gains for weaner stock in all three enterprises at ‘Wandobah’ in western Victoria.”*

The pasture growth over these summer to early autumn periods has also allowed us to finish our store first-cross lambs to domestic processor weights. We have also maintained growth rates during this time in our Friesian Bulls at 0.6 – 0.7 kg/hd/day, when normally they just hold their weight or go backwards.

Phalaris, plantain and sub clover is the basis for all new pasture mixes. We found that these were the plants that survived the recent drought period and came back

strongly after rainfall whereas the only thing permanent about the newer ryegrass species that had been sown was that they were gone – permanently!

We will continue to evaluate the tall fescue and are encouraged by the production from lucerne at another local EverGraze Supporting Site at ‘Tooronga’.



*Innovation trial of plantain chicory*

We are now looking to sow lucerne this spring. We are looking forward to having more of the property developed with the EverGraze systems, with another 60 ha of new pasture being sown this autumn”.

## science behind the story

In south-west Victoria, pasture shortfalls often occur during summer and early autumn requiring livestock producers to incur the cost of supplementary feeding.

These costs can be reduced by sowing pastures that extend the growing season by responding to summer rain or being quick to respond after the autumn break.

The Hamilton EverGraze experiment examined the water-use and productivity of pastures such as Sardi 7 lucerne, Puna chicory and Quantum tall fescue. Each of these cultivars contributed extra feed at a time when perennial ryegrass pastures were growing more slowly or dry.

All three pasture species are deep rooted. Lucerne and chicory have been found to draw water from a depth of more than three metres. This feature aids in the reduction of recharge but also in the persistence and production of these species in a drier environment.

The summer-active tall fescue is deep rooted but unlike chicory and lucerne is better suited to heavier soils types that hold moisture for longer. Summer-active tall fescue is more heat tolerant and can

withstand water logging to a greater extent than perennial ryegrass. This makes it suited to a grazing system that requires summer/autumn feed but the land is lower lying with heavy soils.

At the Hamilton EverGraze Proof Site, summer-active tall fescue has produced between 10 and 15 tonnes of dry matter per hectare each year for the last four years. Depending on the year, 1 to 4 tonnes of this forage was grown during the January to May summer-autumn period.

Lucerne has persisted well and consistently produced between 2 and 4 tonnes of quality green feed during the summer-autumn period. With a large rainfall event in January 2007, the Sardi 7 lucerne grew over 30 kg/ha/day for much of February and March 2007. This resulted in an estimated saving of \$20 per head in supplementary feed costs for the sheep grazing that pasture system at a time when the perennial ryegrass pastures were destocked for drought feeding. Both the lucerne and chicory were able to provide high quality green feed at a time of year

when the perennial ryegrass feed was predominantly dry.

Tall fescue and lucerne have persisted well, despite high stocking rates up to 30 DSE/ha and tough growing conditions. The Puna chicory produced 1 to 2 tonnes of green dry matter during the summer-autumn period each year but its presence in the pastures has decreased over the trial and it appears to have come to the end of its stand life at 3-4 years.

Based on the Hamilton EverGraze experiment summer-active species provide valuable out of season feed by responding to rain that would be otherwise unutilised. This can reduce supplementary feed costs in grazing systems.

*A series of fact sheets on perennials, such as chicory and lucerne, is available at [www.evergraze.com.au](http://www.evergraze.com.au)*

## contact

**Anita Morant**

**P:** (03) 5573 0732

**E:** [anita.morant@dpi.vic.gov.au](mailto:anita.morant@dpi.vic.gov.au)

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