



Grazing management makes the difference

A keen interest in managing native perennial grasses as part of a larger perennial-based system has seen Judy Griffiths establish an EverGraze® Supporting Site to test the practice behind the theory.

“Over the years, I have become increasingly interested in managing our native grass pastures on our hilly country, but information has been lacking,” Judy said.

“We have about 120 hectares of undulating to rising country, which is dominated by native perennial species such as microlaena and wallaby grass.

After years of intensive grazing under sheep in my father’s time, followed by the recent drought, the hills have been decimated.

Perennial beginnings

Our farm has long been a perennial-based system – we have some old phalaris pasture my father planted perhaps 40-50 years ago and the hill country has a native pasture base.

Our country had been fertilised for many years since the 1960s-1980s, and even the hill country, except for some steeper slopes. But in tough years the hill country started to deteriorate under the sheep.

I think the addition of super, on top of constant grazing, takes the tops out of the grasses, with set stocking allowing rubbish such as capeweed to flourish.

At one stage after a run of tough years during the 1970s, the whole hilltops, maybe a sixth of the way down the hillslope, had nothing on it at all.

We backed off the super and the sheep, and started to run cattle in that country a bit

key points

- Native perennial grasses benefit from deferred grazing after seed set
- Fertiliser can promote competition from weeds to the detriment of native species
- Group learning with on-farm trials allows producers to test theories in a practical environment.

farm info.

Case study: Judy and Chris Griffiths

Location: Wangaratta, Victoria

Property size: 400 ha

Mean annual rainfall: 710 mm

Soils: Highly dispersive clay loams on steep hills through to more fertile valley floors

Enterprises: Cattle



Photos: DPI Victoria

Judy Griffiths, pictured second from the right, has found great value in group learning, where producers get the opportunity to share ideas.

more and with the summer rains the natives started to regenerate.

Seeking information

I took over part of the farm during 2000 and since then we have never had a sheep on the place. I could see the value of the native pastures and wanted to find out more but there was no information about how to recruit and keep them in our system. Information was coming out suggesting microlaena and wallaby grass were of value, but no advice on how to manage them.

Our initial investigations were through our Landcare group and it became evident a low input, low output approach might be a better way to go.

Information from the group brought our learning to the fore – Landcare has been amazing thing for learning and the group situation is great for sharing ideas.

Putting theory to practice

I’ve sort of bumbled along trying to find information and trialling several approaches.

During the past few years, we have destocked the native pastures at different times to allow it to set seed.

The most valuable are the summer-active species, as now we are starting to get summer rainfall which benefits their growth.

Microlaena has been the main species we have been chasing as it has some of the best feed quality.

I don’t practice the theory to a tee – you learn different things as you go along.

Originally, the theory was to lock the hill country up from spring until the autumn break.

But I’ve found that if you continue to graze the native species, it’s not necessarily a bad thing. During late spring and autumn, if you get summer rain, are good times to let the grasses go to head and seed.

On one of our EverGraze Supporting Site paddocks, after being locked up for six months, I only got a fortnight’s grazing out of it.

But on the control paddock, I lightly grazed it through spring, summer and autumn.

The other thing I’ve learned through a test strip approach is not to lime the native pastures – not because they don’t do well, but because the weeds do better! Silvergrass on the lime test strip outcompeted the natives completely.



Rotational approach

This year we started a rotational grazing system and we've been having a reasonable amount of success. I can now start to see the value of doing that.

Both innovation and the control paddocks are 15 ha each and above them are two 30 ha blocks on a 66 per cent slope, and as part of our four-paddock rotational grazing system, they are grazed for a similar time.

So we've got that as our first-block rotation, but we've been held up due to a lack of water over recent dry summers.

But this last year, we have been able to continue and you could see where the cattle had eaten down the hill blocks. The cattle have come away looking healthy.

I have an autumn and spring calving herd. Through spring, I can put my autumn cows and calves and my maiden heifers in a big group and use them through the rotation.

But when you hit spring, to keep the valuable effects of rotation grazing, you need a huge amount of stock, about 2000 dry sheep equivalent (DSE) doing the circuit on these blocks. Come December, I flicked the cows and calves out of that site, took the calves

off and put the cows and heifers back. There were less stock and the cows had to calve and come off.

Since then we had 150 mm of rain during February and the phalaris really took off.

I had plenty of feed on the phalaris country to rotate my spring cows and calves and they are just now coming up to weaning and the cows will go up on the hill country.

The autumn cows calve down on the better pastures in the valley floor – the hill country suits the dry stock and the cows and calves do better on the phalaris.

During spring the annual species go mad up amongst the natives and you get stock to eat them so the natives grow out later in the spring rather than the annuals choke them out.

Paddock approach makes practical sense

The information is just starting to come through on the *EverGraze* site, but we've only had three seasons, which is not near enough.

I think there is really something to have learned, there is no doubt about it. I wanted

paddock-scale information and I can't get my mind around small research trials.

I understand the trial sites for research data, but farmers need a paddock-scale site so they can say "so that's what happens in reality".

Producers need to match research information with what fits into a whole-farm system.

We don't get the uptake in the general farming population without them seeing it on farm first. That's what holds back a lot of research adoption; the key is to get people out here looking at it." ↓

EverGraze – More livestock from perennials is a Future Farm Industries CRC, Meat and Livestock Australia and Australian Wool Innovation research and delivery partnership.

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science behind the story

By Jeff Hirth, Agronomist, Springhurst

- There are two *EverGraze*® paddocks on Judy's property – both contain native pastures and the intention was to rotationally graze them, with one to have a strategic rest when the natives were flowering.

Judy grew up in this area and her knowledge about how to manage and use native pastures is phenomenal.

The paddocks are on south-east facing mid-slopes of the Murrumgee basin, which don't dry out so quickly and favour the persistence of microlaena.

It is reputed glacial activity has left a large semi-circular basin several kilometres across, with steep hills on three sides. Most people farm the valley floor but the steep slopes contain native pastures.

Judy's approach has been to graze the native pastures during winter and spring, and bring stock down to lower country with exotic pastures during summer.

We wanted to investigate year-round rotational grazing of the native pastures in a four-paddock rotation.

But when the project was set up the innovation was to ensure the natives

(basically microlaena) thickened up by removing stock at the start of summer, allowing them to set more seed.

We first removed stock at the start of December 2007 to allow the microlaena to flower. Grazing resumed after the autumn break during mid-May 2008.

Rain during December 2007 and again during February 2008 saw the microlaena flower four times during this period.

As such, the livestock production for the control paddock, which was rotationally grazed during the six months the innovation paddock was shut up, benefited greatly from the summer growth of the microlaena.

With the four flushes of new growth during the summer, Judy felt locking it up did not make sense, because the new growth was palatable and nutritious and would be of poor quality when the autumn break arrived. She believed the pasture needed to set seed once and could then be grazed during summer to utilise the quality feed and to open up the sward – she was right.

To increase the density of natives, producers need new seed and space to establish. Grazing shortly after

flowering creates such spaces and provides opportunities for germination and seedling establishment, should there be summer and/or early autumn rains.

In a dry season, the seed remains viable and can germinate as late as the following spring.

Grazing native pastures hard during early spring to reduce competition from annuals also has the benefit of opening up the sward for any germinating native seed.

In a sense the innovation didn't work as it focussed only on increasing the native grass seed bank without establishing the complementary conditions that then favour seed germination and establishment.

- *Jeff Hirth is a private consultant who has more than 30 years experience in pasture agronomy and editorial work.*

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