



Subtropical pasture establishment – worth the wait

Brett and Bernadette Holz are making their first foray into subtropical perennial pastures with an EverGraze® Supporting Site and they recently shared their establishment experiences with Catriona Nicholls.

“Working with dryland pasture systems has been a steep learning curve for us, coming into the area from the Hunter Valley,” Brett explained.

“I grew up on a dairy farm, which relied heavily on irrigated pasture and without the water it wouldn’t work.

Learning to manage dryland pastures and how to get the best out of what is there is a real challenge.

Initially we’ve been cropping for the purpose of cleaning up the country, with the long-term goal of establishing permanent pastures for our cattle.

All the country is clean and ready now, but we need to take a step-by-step process to produce some winter feed.

We are running 280 breeders, 165 weaners and dry cattle, and 140 steers on a leased paddock. These steers are aimed at the feedlot market.

When we first got here, there was a ryegrass mix, which was totally impractical – great for about two weeks during spring, then a big storm would come and it would all fall over.

We’ve sprayed out the paddocks, cropped with oats and forage sorghum and slowly moved into perennials.

At this stage we have lucerne as pure stands for hay and are now venturing into summer-active subtropical grasses and tall fescue for grazing.”

farm info.

Case study: Brett and Bernadette Holz

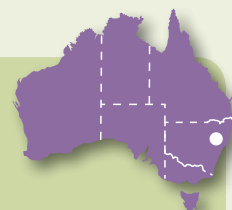
Location: Quirindi, New South Wales

Property size: 1130 ha (300 ha leased)

Mean annual rainfall: 750 mm

Soils: Black basalt ranging to chocolate loam

Enterprises: Cattle



Establishment of their new subtropical perennial pastures seems to have been a success for Brett and Bernadette Holz so far. INSET: The perennial mix includes Katambora Rhodes grass to help prevent erosion.

key points

- Subtropical grasses will provide summer feed to complement lucerne pastures
- Establishment requires patience, rainfall and careful grazing management
- Perennial pastures are a long-term investment.

Promoting perennials

“During late November 2008, I attended a Landscan course run through the New South Wales Department of Primary Industries (NSW DPI) in the Willow Tree area,” Bernadette said.

“They were promoting perennial pastures and looking for trial plots; so we got involved.

It was quite coincidental and good timing, the paddock at the top of our property was so well cleaned it had eroded. During Summer 2007-08 heavy rain caused wash and we were looking at planting lucerne. But because of the erosion, we thought we could try the subtropicals to hold the soil together.

Currently we have a six-hectare trial block and a 25 ha EverGraze Supporting Site with additional subtropicals pastures funded by Namoi CMA – the rest is fallow.

One of the fallow paddocks will go into tall fescue and the balance is sown to oats and wheat for winter grazing.

All going well this country will later go down to tall fescue and subtropicals.”

Lightly lightly

“This is our first experience with subtropicals and we were quite nervous. They have tiny seeds, and establishment is well known to be the hardest part of the process,” Brett said.

“But, the timing and amount of rainfall we received since they went in is unbelievable.

Everyone tells you the same story – watching it establish is so painful, but because we’ve been warned you accept that you need to be patient with these pastures.



Our agronomist said we had to put it in and not look at it. We sowed it with an agrodrill during November and we had good follow-up rain, so that has helped.

The ability of the pasture to thicken has been particularly impressive. When you walk in there you can still see patches of bare ground, but we're expecting that to be a different story by next year.

I think a key to our success so far has been the cleanliness of our paddock and we were fortunate with rain. The timing of the NSW DPI course and the introduction was very timely with the paddock.

We've added a tall fescue component to the subtropicals to provide winter feed, so this should be our last year of putting in oats and wheat.

Next year we'll have a good start with the subtropicals during summer and the fescues during winter.

Our chosen species include Bambatsi and Gatton panics (45 per cent each), Katambora Rhodes grass (10%) and floren bluegrass and Bambatsi in the second paddock.

Katambora Rhodes grass should help with erosion due to its prostrate growth habit.



Photo: Catriona Nicholls

The small seed of subtropicals makes establishment a challenging and expensive process, but Brett aims to have a productive perennial pasture for many years to come.

All in all, both paddocks seem to have established successfully.

Sowing the seeds of success

There are two different seed principles to choose from when sowing – coated or uncoated seed.

NSW DPI wanted to use uncoated seed in the trial block and it was blended with fertiliser at sowing to help flow.

When we went to buy seed for the top block there were many opinions. But the general

consensus was the coated seed is the safer, albeit more expensive.

And if establishment is so important then to us it seemed worth the effort.

At the time we looked at annual systems and the cost of chemical, fertiliser, seed and diesel on an annual basis – when we did the comparison, the cost was justified.

The thing we found ironic was that nobody seems to question purchasing oats seed at \$1000 plus and fertiliser annually and when you sit down and look at doing that anyway, compared with a one-off expense, it really made sense.

The advice is to graze them lightly for the first 12 months and let them go to seed.

That is where we are at now – the grasses have gone to seed and we about to graze with weaners.” 🌱

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science behind the story

By Lachlan Rowling, NSW DPI

- Recently, many 'tired' paddocks on the slopes of Northern NSW have been returned to permanent or phase pastures based on tropical grasses. However, Brett and Bernadette Holz have opted for tropicals based on their potential for impressive warm-season production and their capacity to contribute to landscape management through soil stabilisation, high groundcover, and litter and organic matter inputs that drive the soil biota interaction.

Achieving successful tropical pasture establishment can be a major hurdle. The Holz's made an opportunistic decision to sow during favourable warm-season rainfall into a paddock free of summer weeds.

The tropicals have been sown on a sloping landscape dominated by a basalt-derived cracking clay (Vertosol) soil. Bernadette pointed out that Vertosols tend to erode when bare, representing a management challenge.

The natural slaking process of cracking clays means that masses of soil can be stripped from paddocks in a single intense summer rainfall event. With sheet and rill erosion, you only need to lose the equivalent of one millimetre of soil to wash about 10-14 tonnes of soil from one hectare.

Tropical grasses were selected in preference to a lucerne monoculture for their potentially higher groundcover and longer growing season. Well-managed tropical pastures intercept rain and reduce surface run-off. Deep, fibrous root systems also anchor and stabilise the vertisol soils.

The Holz's chose a seed mix to suit the heavy soil landscape and for the potential of species including Bambatsi panic to boost overall pasture quality. Rhodes grass was included for its ability to spread laterally via runners or stolons.

The sowing rate for Rhodes was reduced to 10 per cent of the species mix to limit

its dominance – it can be a stronger, more competitive seedling.

The Holz's have made a great start to the successful establishment of their grasses. The next step in managing these pastures will be to establish a legume component and choose an appropriate grazing management strategy. This process will be assisted through funding and project coordination from the Namoi CMA and inputs from NSW DPI.

- *Lochie is an advisory officer with NSW DPI and contributes to the EverGraze project through extension work in Northern NSW.*

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