EverGraze
More livestock from perennials

More perennials
Better livestock
Healthier catchments

Case Study

Changed management of steep gorges

Scott Young runs a 780 hectare mixed cropping property with his father near Ballan in Victoria. He has an EverGraze Supporting Site investigating management of steep gorges as a way of achieving better production and to help control serrated tussock. He spoke to Lisa Miller about the changes he plans to make as a result of the trials at the Supporting Site.

farm info.

Producer: Scott and Peter Young

Location: Fiskville, Victoria

Property size: 780 ha

Soils: Gorge and flats are fine brown clays volcanic in origin with Ordovician sedimentary hill country.

Enterprises: Lamb and wool production and cropping

Pastures: Phalaris and cocksfoot, perennial ryegrass, oats and native perennial grasses.

"We have 100 hectares of steep rocky gorges and hill country where serrated tussock has become a problem.

We had the opportunity to have an EverGraze Supporting Site that looked at grazing management as a way of helping control serrated tussock. My father thought it was a good idea. He had been spraying for 30 years and we are still spraying, but are no better off.

Six years ago we had trees planted in the gorge but serrated tussock still grows under them. Some neighbours think I should tree the whole gorge but if we can get the pastures competitive again then I think that's the answer.

I split one 30 hectare gorge in two. In one half we are trying to increase the amount of native grasses. The other half is even more degraded and last year I had to spray it with Flupropanate to kill serrated tussock. It does a terrific job on the tussock but takes with it all the competition and within five years the tussock is back and it needs respraying.

We stop grazing in October and spell the paddock to the autumn break or at least April if I really need the feed. Then we graze for a few weeks at a time with sheep. This also means we can rest some of the other paddocks. We have been running the equivalent of 3 DSE/ha over the year. Our food on offer (FOO) has been lower than we would have liked, averaging around 500 kg DM/ha over winter. But the groundcover has stayed at about 90%, which is where it needs to be to help stop erosion and serrated tussock seedlings.

The gorge is well sheltered and the stock always do well. We use to graze the gorge over spring when stock came off the crops but I can see now that only helped the serrated tussock seedlings survive.

Scott Young

The control paddock hasn't got much of anything in it but weeds. After we sprayed it with Flupropanate the feed on offer dropped from 520 kg DM/ha to 400 kg DM/ha in the following winter and we hadn't even grazed it.

Cocksfoot has self seeded in parts from a nearby sown paddock. We know we have to get some competition in there otherwise we will need to keep broad-acre spraying.

We had planned to aerial sow the paddock but it was so dry at the end of June that we decided to aerial sow only

key points

- Degraded native pastures can be improved with strategic spring spelling.
- Competitive pasture species are needed for serrated tussock control.
- Broad-acre spraying of serrated tussock alone is not the answer.

" I feel like we are headed in the right direction, away from being locked into broad-acre spraying serrated tussock and into a system where we maximise pasture production and competition."

Field day at the recently direct drilled cocksfoot and clover site

small demonstration plots. A more arable 10ha paddock was direct drilled with cocksfoot. The Spanish cocksfoot, Uplands was chosen for its ability to survive in low rainfall and Yarck for its improved seedling vigour.

We sowed cocksfoot instead of phalaris because it had naturally self seeded in parts of the gorge, indicating its suitability to the site. It also has better seedling vigour and establishes more readily from aerial seeding.

I was late sowing in July but it's established really well. The cocksfoot establishment from aerial seeding was surprisingly good. I think that reasons for the success were good weed control and the fact that it rained just after sowing for three weeks. I'll wait to see how it goes but it's shown me another way to sow down the gorges.

I feel like we are headed in the right direction, away from the being locked into broad-acre spraying serrated tussock and into a system where we maximise pasture production and competition.

The money we would normally spend on broad-acre spraying serrated tussock will be better spent on pasture establishment and fertiliser.

science behind the story

Grazing management of native grasses is being researched at EverGraze Proof Sites located at Albury/Wodonga and Orange.

In these research trials, the native grass content is at desirable levels of 20-40%.

The difference with Scott's site is that the native grass content is much lower at around 5% of the pasture composition.

We are basing our techniques on the findings of the "Steep Hills" research project at Ararat, where we hope to quickly restore ground cover and build up native grass seed reserves.

The innovative treatment involves spelling the paddock from October until the autumn break.

This aims to maximise groundcover density and seeding of native grasses.

If we get suitable summer rainfall we hope to get regeneration of native grasses from seed reserves.

The innovation paddock is grazed throughout winter and early spring, aiming to maintain high ground cover of 90%.

We need high ground cover to prevent erosion but we are also conscious of trying to exert pressure on serrated tussock seedlings so they are weak going into summer and unlikely to survive.

The results at Scott's property have been promising to date. The innovation grazing treatment allowed the producer to utilise the gorge when feed was in short supply during autumn and winter without any detriment to the native grasses and showed no increase in serrated tussock recruitment.

Also native grass persistence measurements showed that their density increased slightly from 2008 to 2009 under unfavourably dry conditions.

A series of fact sheets identifying native grasses and their management is available at www.evergraze.com.au

contact

Lisa Miller

P: (03) 5226 4070

E: lisa.miller@dpi.vic.gov.au

www.evergraze.com.au

EverGraze is a Future Farm Industries CRC, MLA and AWI research and delivery partnership

FUTURE FARM INDUSTRIES CRC

awi Australian Wool Innovation Limited

mla MEAT & LIVESTOCK AUSTRALIA