

A case for conservation farming

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GROUNDCOVER AND FLEXIBILITY THE KEY TO LANDSCAPE REGENERATION AT BOOROWA



**Gary Johnson on farm with CANFA's
Neville Gould**

Gary and Anne Johnson of Boorowa were the Lachlan catchment finalists in the 2012 Conservation Farmer of the Year (CFOTY) Award; a surprise to some perhaps because of their non-cropping operation and the assumption that this award goes to croppers.

The Award recognises environmentally sustainable and profitable farming and the willingness of farmers to contribute to the well being of the local and greater farming community. It does not specify that entrants be croppers. This is the second time in the recent history of the award a non-cropping operation has been in the running; John and Robyn Ive of Yass took out the title in 2009, whilst the Johnson's immediate neighbours, David and Mary Marsh, also non-croppers, took out the title in 2004.

The Johnson family's ongoing commitment to the long-term productivity and biodiversity of country, that Gary Johnson describes as being "not very good soils", is far from conventional and it shapes their operation today.

Situated on the South West Slopes near Boorowa, the Johnson's 1,352 ha property "Tulangi" was purchased in 1999. Since that day there has been no cropping on the property, which is built on a mix of 'spewy' pipe clay soils and granite hills with 'silty' flats – light grazing country. The annual average rainfall is 650mm.

Since 2006, the Johnsons have been agisting cattle, currently running 230 Angus cows and calves and 400 Angus weaners. Gary says they do some trading along the way in cattle and sheep, but the main grazing operation is the agistment cattle.

"We had to destock several times during the drought. Our main enterprise is environmental stewardship and the agistment cattle fit in around that very well – it is the simplest operation for us."

The idea of 'locking up' country under an agreement is not one that sits comfortably with some farmers. However, after some negotiating, Gary says they have found a way of making

the environmental stewardship program (ESP) work for them. Almost 80 percent of “Tulangi” is locked into the ESP, which runs for 14 years. “The restrictions of the environmental stewardship agreement mean we’re not allowed to fertilise, we’re not allowed to plough, we’re not allowed to pick up paddock rocks or touch dead or fallen timber and cut firewood on the property.”

“When we first went into the scheme there were grazing restrictions but we’ve had those changed because we’ve got such a large area in the environmental stewardship program that the grazing restrictions were going to create a fire danger for our neighbours, ourselves and the species they’re trying to protect. They decided a patchwork of grazing going on all year round was more sustainable and environmentally sensible than the grazing restriction we had initially,” says Gary.

The ESP is part of the Caring for our Country initiative, aiming to maintain and/or improve the condition and extent of targeted matters of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999*.

Gary Johnson questions the term conservation when considering what it is he is trying to achieve, preferring the term ‘regeneration’.

“I’ve taken over country that had incredibly high levels of bare soil and we’ve gone about building up the litter on the landscape by working with the four cycles – the water cycle, solar cycle, mineral cycle and a shift into higher successional species. We’re using those four natural cycles to get our country into a healthier state.

“The biggest change has been the level of litter. We’re aiming for 100 percent litter 100 percent of the time and we’ve pretty much achieved that. We’d be about 95 – 100 percent groundcover all the time and we aim to keep it at that level.

“The other big change is the regeneration of the perennial grasses that were on the place but in very small numbers. With our planned grazing we set about giving those perennial grasses the time required to recover. It’s amazing now how widespread and thick they are on the landscape.”

Native perennial grasses such as Weeping Grass *Microlaena stipoides*, Red Grass *Bothriochloa macra* and Wallaby Grasses *Austrodanthonia* spp. are starting to recolonise these areas. The remainder of the property’s pasture is native and dominated by Weeping Grass, Red Grass, Wallaby Grasses, and in heavily over grazed places, Wiregrass *Aristida ramosa*. There is a mix of other native and introduced grasses and forbs providing a diverse mix of plants for grazing.

The mantra familiar to no-till farmers of “groundcover is king” is the same for grazing operations says Gary.

“It is so important. Even though I’m in the South West Slopes, suggestive of rolling hills, my country is quite steep. If we get heavy rain, which we do get in summer storms - people dread the gully raking storms of January, February, March.



Gary Johnson receiving his award as a regional finalist in the CFOTY Award from Lachlan CMA's Dom Nowlan

“If you’ve got high levels of litter it soaks in and you can benefit from the rain all year round rather than only in the cooler months. The litter holds things together in those big storms. It holds the moisture where it falls and you grow more grass up the hills.

“There were some pretty badly eroded spots when we bought the place, but they’re healing themselves. The thing we have to focus on is that the erosion is caused by water coming from higher up. So by holding the rain where it falls, over time the lower lying and erosion prone areas get a chance to heal up.

“We’ve been here 13 years and it’s not going to heal itself in a short period of time. It’s taken many years for it to get to the state it is in, so it could take as long or more for it to completely regenerate. But I’m very happy with how the higher country is progressing, which has to help the lower country.

Gary says the family has a long way to go before they are satisfied the country has been restored to full health. However, he admits, it is significantly better than what it was.

“We’re carrying more stock so I’m spending more time on the farm than what I was a few years ago when I took a part-time job at the school in town during the drought.

“What I’m hoping to achieve is a ‘safer’ operation where we’re not being jerked around by six month dry periods, necessitating hand feeding, having to send stock away or sell them. I envisage a landscape that with planned grazing I can ride out those tougher periods, having feed in front of the livestock. You’ve then got time to make decisions rather than have to react to another drought.

“Nothing is worse than running out of feed. I’ve spent my whole life going from excessive feed to no feed and rationing out of that feed is the key to making life a lot easier for myself emotionally as well as physically.

“The major threat a few years ago to our operation was bare soil and water. We regularly had dams going dry due to them being full of silt. In the 13 years we’ve been there we’ve cleaned out and enlarged 30 of the 35 dams. They will never go dry now in my lifetime. We have also laid 10 kilometres of poly pipe with an extra 31 water outlets.

“Today, the main threat to our operation would be not being able to get enough livestock. Getting enough stock to eat the feed, being able to harvest the grass we’ve had, has been my biggest problem.”

After running cattle for several years now, Gary has also come to realise he may need to start thinking of diversity in his livestock enterprises if he is achieve the results he is after.

“I really believe I need other animals in the mix to utilise different grasses. I’m looking at buying some wethers to compliment the cattle.

“This year has been a heavy frost year and a lot of grasses have been frosted off and the cattle haven’t been interested in eating these grasses. I think having that diversity of grazing animals may make the management of the grasses across the landscape better.”

The big job to tackle in the short-term is fencing. There are 29 permanent paddocks on “Tulangi” and temporary fences within those paddocks using polywire. Grazing blocks range from 10 – 20 hectares, with planned grazing periods of one to six days.

“We’ve done a lot of fencing already, but we’ve got more to do. There are also more gateways to put in so when you’re in time-controlled grazing you don’t develop patterns of grazing. We’ve got 20 extra sets of gates to put in so we’re not following the same path every time we go around the farm.

“It’s important to maintain the permanent fencing even though we use planned grazing because when we have very wet years it has necessitated just letting the cattle go within an existing paddock. I need the flexibility to either break the paddock up or just let the cattle go within the whole paddock,” says Gary.

T: 02 6385 1000 or 0427 385 100

E: tulangi81@bigpond.com