

CASE STUDY

Northern Agricultural Catchments Council



Increasing Ground Cover and Protecting Bush

Introduction

Mick O'Brien runs a mixed farming enterprise between Northampton and Chapman Valley. His property has some good soils used for cropping as well as some poorer sands which are now mostly planted under perennial pastures. The land on these poorer sands (Nabawa sandplain) was bought a couple of years after Mick and his mother purchased the initial block. Although not as productive, they were also interested in the neighbouring property "Nina Springs" – as it has very good water quality and quantity.

"They say Nina Springs is actually derived from 'Nine Springs' which does make sense – as there are some very nice soaks and creek lines, and we use our bore water in the house and my family prefer it over the rain water," said Mick.

The Process

Mick has been involved in NACC projects under both NACC's Biodiversity and Sustainable Agriculture Programs. He first took-up a landholder incentive in 2009 to plant perennial pastures. The sandy paddocks did not carry stock very well over summer and were prone to wind erosion. Mick was also interested in the trials that Department of Food and Agriculture undertook with the establishment of perennial pastures. And, after attending a field day at which he saw the trials where these perennial pastures were actually providing summer feed as well as ground cover over summer, he decided to introduce some perennial pastures himself. A visit from a NACC's local NRM Officer helped clarify what was involved in signing a management agreement and the project was initiated to establish 80 hectares of perennial grasses.



Perennial pastures providing ground cover.

"After the initial seeding I was a bit worried that the perennials wouldn't establish properly as there was not much summer rain," said Mick. "We did end-up getting a bit of rain in November and March that year, and the perennials went quite well," After that first paddock, he decided to put in another five paddocks – bringing the total area of perennials to 280 hectares. Mick said the perennials have significantly increased the availability of feed all year around on the property and has improved the ground cover in those paddocks – so the topsoil is not blowing away.

Value to the Site

Nina Springs has about 150 hectares of uncleared vegetation on the property – mostly on breakaways. Most of these areas have been fenced-off to protect stock from poison bush (*Gastrolobium* sp). All except for two of the more than 100 species of *Gastrolobium* are native to Southwest Australia, where they are commonly referred to as 'poison peas'. Whilst Western grey kangaroos and many other native species are capable of safely eating *Gastrolobium* plants, it is poisonous to livestock and other introduced animal species. Identifying these shrubs is tricky – as they only

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flower for a short period and are easy to miss. As a result, farmers often choose the fence-off the bush, and keep an eye on stock after summer rain to ensure they do not eat the plant, as Mick has noticed that stock do seem to try and actively seek-out the plants after rainfall.

Other flora on the property include Grass-trees, Acacias, Banksias and Melaleucas, and there are some good stands of larger She-oaks and Gum trees along the watercourse. Small flocks of Carnaby's Black-Cockatoos occasionally fly over to feed on Parrot bush, and every year there are a few Bush turkeys that visit during the winter months.

When there was an opportunity with help from NACC to fence-off one the remaining breakaways on the property, Mick decided he would fence-off 28 hectares of native vegetation to protect the bush from livestock.

The remnant that was fenced-off lies between a covenanted parcel and remnant vegetation in the southwest corner of the property, and breakaway vegetation on the neighbouring property that follows a creek system into a reserve.



View over the O'Brien property, from fenced area.

Mick said that the process of getting the funding was very similar to his perennial pastures project. The local NRM Officer came out to do a site visit and determine whether the project follows the guidelines. Farmers generally get about 10-12 months to complete

the project and, after the inspection of the works, the landholder receives the payment as per the agreement.

The Future



Breakaways and pasture coexist at the O'Brien farm.

Mick said there were a few other projects that he could have done in collaboration with NACC and the Shire of Chapman Valley. They were assessed as part of NACC's former Rivers and Wetlands project but sometimes things change, or the timing is not quite right. When Mick and his mother first purchased the property, they planted quite a lot of trees along fence lines and laneways – as wind breaks and for stock protection. Their intention was to initially improve the ground cover and soil health of the property, and maybe subsequently plant some fodder shrubs to rehabilitate areas that had previously been degraded due to water logging.

“In trying to establish our trees we lost some due to stock getting into them, and dry weather,” said Mick. “We made a few mistakes, but you can only learn from them.”

For more information:

Please contact NACC's main office on (08) 9938 0100, or via the website on <http://www.nacc.com.au/contact-us/>

For Biodiversity Program enquiries refer <http://www.nacc.com.au/biodiversity/>

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