



Native grasses – a boon to graziers



Australian native grasses – the long time poor relations of introduced pastures – are proving to be a valued part of the family.

Pastoralists in the extensive rangelands of central and northern Australia may recognise how much they rely on native groundcover. But, the role that native plants play as important grazing fodder is not so well appreciated in intensive farming areas.

This attitude is set to change, as the startling results of a project run by a group of community leaders, farmers and researchers in Clare, South Australia become better known. The Mid North Grasslands Working Group has revealed how managing perennial native grass pastures can help protect biodiversity and boost productivity.

What's so good about native grasses?

Perennial native grasses are drought resistant, frost tolerant, vigorous growers and most are highly palatable to livestock. They provide increased ground cover and use less fertiliser. As perennials they can use water more efficiently, accessing rainfall throughout the whole year, not just during winter.

And they also enhance biodiversity and provide food and habitat for native animals.

These qualities all add up to a big plus for graziers. The Mid North Grasslands Working Group project has shown overall improvements in carrying capacity – one part of the project achieving a 79 per cent increase in stocking rate – increased water use efficiency and reductions in weed growth.



A catalyst for change

In the hill country of the Northern and Yorke Agricultural Districts Region of South Australia some 500,000 hectares of native pastures and grassy woodlands are primarily used for sheep grazing.

Standard grazing practice in the region has been to graze continuously at the same time each year from around May to December, to fit in with cropping.

This has seen a decline in perennial native grasses and the increasing domination of introduced annual grasses like wild oats and barley grass. As well as this, by the mid to late 1990s the region's north facing slopes were showing growing numbers of bare patches as a result of overgrazing.

Farmers and others working in the region recognised that action was needed to;

- raise community awareness about the benefits to sustainable grazing from conserving native perennial grasses;
- demonstrate how planned and controlled grazing systems contribute to the diversity, health and productivity of native grasslands in the area;
- establish sites for demonstration and research;
- demonstrate the benefits of best practice rotational grazing systems.

In 1999, the South Australian Department for Environment and Heritage received \$683,490 from the Australian Government's Natural Heritage Trust to demonstrate that appropriate grazing management can allow production grazing of native pastures and improve native grasslands conservation at the same time. The project was administered by the community group, the Mid North Grasslands Working Group. Since 2003, the Group has been supported by further funding from the Land, Water & Wool program, run by Land & Water Australia, the Natural Heritage Trust and the Northern and Yorke Agricultural District Integrated Natural Resource Management Committee.

"The results of our initial trials amazed even the most optimistic of our project observers, with both conservationists and graziers being equally pleased."

Mid North Grasslands Working Group chairperson John Neal, Hampden



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Finding ways to conserve the grasses

The Group has focused on finding ways to help wool growers conserve and improve biodiversity in native pastures and to increase their productivity at the same time, by changing grazing patterns to encourage native pastures.

A 32 hectare experimental site was established near Clare with the cooperation of a local landholder and trial paddocks were set up to compare different types of grazing rotations against the usual district grazing practices. Farmers participating in the program had to rotationally graze these pastures, and to keep 12 month records of their grazing.

Seven demonstration sites were also established on commercial sheep and cropping farms typical of the region stretching from Robertstown to Carrieton. Funds were provided to help subdivide large paddocks into smaller ones, and help with the costs of creating new stock watering points for these paddocks. Among other things, controlling the movement of stock through fencing enables farmers to reduce the level of selective grazing on the north facing slopes and allow grasses to grow back on the bare patches.

As well as the current district procedure of resting paddocks over summer, a number of different types of grazing regimes are being tested through the project. These aim to find ways to manage stock to encourage optimum growth from the nutritious native grasses. The trick is to ensure that the plants are not over-grazed, as this slows down the rate at which individual plants re-grow.

To date, test paddocks have explored the results of excluding all grazing, as well as the impacts of resting at different times of the year, with slow rotational grazing at other times. An autumn rest aims to allow improved germination and survival of cool-season perennial grasses, and a spring rest encourages improved seeding of perennial grasses. The project also focused on cell grazing which involves grazing intensively for a short period – such as one to three days – according to the plant growth rate.

“...the identification of the various native grasses, their value, care and best management in ...grazing... has been extremely important and exciting for us. The project has ... shown us the advantages of rotational grazing, as we have seen the native perennial grasses and bushes on our property respond like never before.”

Mid North Grasslands Working Group grazing trial participant John Parnell, Glenroy Estate Carrieton.

How's it helped?

Measuring how native plants respond to different grazing regimes over a range of seasons and conditions takes time. However, even after only five years, the project is showing environmental, economic and social benefits.

Environmentally, ground cover has increased and plant health improved after removing selective grazing. Long term sustainability has been enhanced by reducing bare ground on the north facing slopes and increases in diverse perennial native grasses have boosted biodiversity.

Economically, the stocking rates have increased through better pasture and grazing management.

Socially, farmers have come together to find new and profitable ways of working. There has been an emphasis on training and education and a concerted communications program has kept the region's farmers up-to-date on project progress and results and encouraged them to change their grazing regimes.



The success of the project has come from reducing paddock size, increasing paddock numbers and on occasion, increasing the stocking density of animals for a short time.

Communication and continuous facilitation support have played an important role in the project's success. They have helped graziers understand the principles of pasture and animal management and the lifecycles of key pasture species, and to appreciate the need to monitor the effects of different grazing regimes.

Lessons learnt

- Biodiversity and farm productivity can both benefit from well managed rotational grazing.
- Rotational grazing can improve the diversity and quality of native grasslands and will;
 - » allow perennial native grass species adequate time to recover from grazing;
 - » reduce selective grazing of more palatable native grass species;
 - » reduce bare patches, particularly on north facing slopes, and
 - » reduce the thatch of dead annual grasses.

- Community involvement and energy are vital to ensure the success of this project.
- On-going support and funding by a variety of partners and support from a facilitator are major factors in project success.
- Promotion and communication are critical in gaining landholders and community understanding and support .

For more technical details of this project see the Fact Sheet 'Saving South Australia's Mid North Grasslands: Project Details' available from the contacts listed below.

Biodiversity encompasses the variety of all living things. Conserving biological diversity gives us the best chance of adapting to our rapidly changing world.

This leaflet is one of a series showing how farmers, Indigenous communities, local government and community groups have either initiated special biodiversity projects, or have successfully incorporated biodiversity protection into their work and daily lives.

We hope these success stories provide useful information and inspiration to others in similar situations.

For more information: www.nrm.gov.au; or freecall 1800 552 008

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Mid North Grasslands landscape; Clive Palmer.

P2: Kylie Nicolls, project manager & Rowan Cootes participating farmer; Roland Breckwoldt.

Page 3: Field day; Judi Earl.

John Parnell; Kylie Nicholls.

Back: Grasslands landscape; Roland Breckwoldt.

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