



# Case studies

Richard and Janet Doyle, 'Malgarai', Boggabilla NSW



## PROPERTY DETAILS

Location: 7 kilometres south-east of Boggabilla, north-west New South Wales

Catchment: Whalan Creek, Macintyre River catchment

Property area: 3,237 hectares

Main enterprises: Mixed cropping and beef cattle grazing

Where lippia is a problem: Floodplain grazing country



Patches of Lippia in native pasture country on the floodplain

(Photo by P. Crawford)

## General information and lippia infestation

'Malgarai' is split into two blocks – the house block of 485 hectares is situated on the southern bank of the Macintyre River, with the other block of 2,750 hectares straddling Whalan Creek (with 14 kilometres frontage) to the south. Approximately 1,468 hectares of the property is cropped for grain (with some forage crops), with 1,356 hectares of native pasture, 263 hectares of introduced pasture, 255 hectares of remnant grassy woodland, and 93 hectares of riparian zone and remnant eucalypt woodland.

The southern side of Whalan Creek is grazing only, and it is this country that has had a major lippia problem which probably started after a major flood in the early 1980s.

Richard and Janet have introduced some innovative concepts to managing Malgarai, with the main emphasis being on grazing management. The Doyles are implementing a cell grazing system for all their grazing country. This began in 2003, mainly as a means of improving production and sustainability but it is becoming increasingly apparent that cell grazing is assisting with the control of lippia.

There have been two major flood events since the cell grazing system was introduced and, although floods in general favour lippia spread, the Doyles are keen to point out that floods also favour the native floodplain grass species on the property, including Warrego summer grass and curly windmill grass, as well as sedges and Nardoo.



Richard Doyle in an improving stand of native pasture that is responding well to good grazing practices

(Photo by P. Crawford)

## Methods of lippia management

Grazing management is the only lippia control measure being used on Malgarai and, at this stage, the Doyles are very happy with the results. Initially, the cell grazing system was introduced for production reasons but the system is proving to be very effective in controlling lippia.

On the grazing floodplain country there are species returning that Richard and Janet haven't seen for years, including Mitchell grass, curly windmill, Warrego summer grass, windmill grasses (*Chloris spp.*), sedges and Nardoo. There are also areas of weeds but these seem to be reducing as the grasses return. Prior to the introduction of cell grazing much of the floodplain grazing country was a solid mat of lippia, especially in the grassy woodlands and riparian areas.

What is it that makes cell grazing such an effective system, especially for lippia control? It could be that a large number of cattle in small paddocks for a short time (up to 1,000 head on 30 hectares, for as little as half a day) has an impact in stimulating faster pasture growth and, at the same time, breaking up the lippia groundcover. It could be the competition from the healthier grasses or a shading effect that is restricting lippia competition. Whatever the case, the system seems to be working.

There is still lippia evident throughout the grazing country but it is not present to the extent of being a major problem. The lippia seems to be doing best around the base of trees, and this is probably due to these areas not having good grass cover.

## Future control options

Richard and Janet plan to continually improve their grazing management system, with further subdivision and establishment of more water points. There may also be areas where species such as Bambatsi may be introduced to further improve lippia control, as well as for production outcomes.

Recently Richard and Janet began trialling pasture cropping as a means of improving the production on the older native pasture country. Pasture cropping may be a very useful tool for lippia control in future years as it accelerates the increase in groundcover, perhaps reducing the opportunity for lippia establishment as well as contributing to the shading effect. They are very excited about the pasture cropping concept and will continue to experiment and trial different species under this system.

