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IMAGE: PETER VAUGHAN

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May, 2014

Benchmarking Biodiversity

Mungindi Area Wide Management Group

Cotton growers working together for a sustainable landscape: Gwydir Valley Case study

Snapshot of project achievements:

- Five farmers with improved natural resource management knowledge and skills
- 16,830ha of native vegetation condition benchmarked
- Co-ordinated approach to natural pest control
- Improved industry knowledge of the health of native vegetation in cotton landscapes

Mungindi Biodiversity Benchmarking

In the Gwydir valley a series of workshops on vegetation management were held with five landholders within the Mungindi area attending a workshop on the value of native vegetation as habitat for natural pest control. As part of the workshops participants undertook landscape planning, identifying native vegetation management issues within their local area. Participants at this workshop identified the need for accurate baseline data about their native vegetation as the key issue for managing

production and biodiversity on their farms. From this workshop a biodiversity benchmarking program was developed to assess native vegetation condition on each farm for ecosystem services such as natural pest control.

Mungindi Area Wide Management Group

The Mungindi Area Wide Management Groups consists of five landholders whose combined properties cover an area of approximately 16,830ha, much of which includes the endangered Coolibah Black Box Woodland community.

The group alongside the Gwydir Valley Irrigators Association Inc, New England North West Network Chairs Inc, Border Rivers-Gwydir Catchment Management Authority and Stringybark Ecological developed a co-ordinated program to assess the ecosystem service potential of the native vegetation on their farms. Vegetation condition assessments for natural pest control was undertaken across eight sites by landholders with the assistance of David Carr from Stringybark Ecological.

The key outcomes of the program include:

- Regional landscape planning for native vegetation management;
- Co-ordinated approach to natural pest control;
- Biodiversity benchmarking across 16,830 hectares of native vegetation;
- Formation of a Area Wide Management group in the Mungindi area for future co-ordinated management of local agricultural and

“Monitoring the relationship between insect management and native vegetation is really the next step for IPM”.

Local landholder and member of the Mungindi Area Wide Management Group.

environmental issues; and

- Improved industry knowledge of the health of native vegetation in cotton landscapes.

Biodiversity Monitoring Results

Biodiversity along creeks and riparian areas is in very good condition, with most of the areas being remnants of coolibah black box woodlands. The results of the surveys showed:

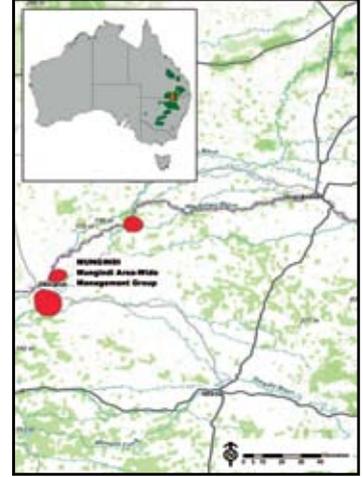
- Habitat complexity of the sites is overall very good with most sites recording lots of trees with hollows, undisturbed fallen logs and young regenerating trees;
- There is a good mix of native plants and a high diversity of tree species in a wide range of age groups;
- Density of low shrub species and litter was low which is typical of these type of woodlands;
- Vegetation along creeks and riparian areas was well connected to water and other patches of remnant native vegetation greater than 20ha;
- Vegetation connectivity to cropping paddocks could be improved to fully utilise natural pest control.

Lessons learnt

The project has been very successful in helping build the capacity amongst local landholders to manage their native vegetation for both biodiversity and production outcomes. Sally Dickinson, Regional Development Officer with the CottonInfo Team, who oversaw the project said *“working with an ecologist like Dave Carr to benchmark on farm biodiversity has not only assisted growers gain a better understanding of how ecosystems function on their farms but also has helped them identify what they can improve to maximise the ecosystems services from native vegetation on their farms.”*

The vegetation condition assessments showed that Native Vegetation in the Mungindi and Boomi areas is capable of providing ecosystem services such as natural pest control. David Carr from Stringybark Ecological said

“The native vegetation along watercourses is generally in good condition with many habitat features present such as a high diversity of native species, few weeds, large size, good connectivity and few threats.” However, *“Improving connectivity and patch size of Native Vegetation within farms is required to fully utilise free ecosystem services such as natural pest control.”*



Map of project area with inset map of cotton growing areas.

The information collected in this project by the Mungindi Area Wide Management group provides the cotton industry with a better understanding of the condition of Native Vegetation in cotton landscapes.

Acknowledgements

The *Cotton Growers Working together for a Sustainable Landscape* project has brought growers together to contribute to the ongoing conservation and protection of biodiversity in their districts. This project was supported by the Cotton Research and Development Corporation, through funding from the Australian Government and the and the Gwydir Valley Irrigators Association, Border Rivers-Gwydir Catchment Management Authority, and New England North West Landcare Network Chairs Inc.

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