



Australian Government
Cotton Research and
Development Corporation



Cotton Catchment Communities CRC

FINAL REPORT 2006

If you are participating in the presentations this year, please provide a written report and a copy of your final report presentation by 31 October.

Part 1 - Summary Details

Please use your TAB key to complete Parts 1 & 2.

CRDC Project Number:

OR Cotton CRC Project Number: 5.10.03.02

Project Title: Evaluation of habitat assessment tools

Project Commencement Date: 12/12/05 **Project Completion Date:** 24/02/06

CRDC Program: - Please Select One -

OR CRC Program: The Catchment

Part 2 – Contact Details

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Signature of Research Provider Representative: _____

Part 3 – Final Report Guide (due 31 October 2006)

(The points below are to be used as a guideline when completing your final report.)

Background

1. Outline the background to the project.

This project was developed to identify a tool to assist growers reach a ranking 1 in Cotton Industry BMP by being able to assess vegetation condition.

Objectives

2. List the project objectives and the extent to which these have been achieved.

The aim of this project was to evaluate habitat assessment tools against biodiversity indicators, and identify a suitable tool for growers to use in the BMP Land & Water Management module to assess their native vegetation.

Outputs:

- Evaluation of habitat assessment tool for growers
- Recommendations on changes/additions to improve the grower tool such that it is easier to use/understand and which increase its correlation to the biodiversity indicator species
- Habitat assessment benchmarking layer for portions of Emerald Irrigation Area maps.

Robyn McAlpine conducted a desk top review of the tools and had selected sites for field work. Due to health problems she did not return after Christmas to conduct field work and had negotiated to return to complete work in winter holidays. She has since been unable to continue with the project due to other study commitments, and we were unable to locate another suitable student.

Methods

3. Detail the methodology and justify the methodology used. Include any discoveries in methods that may benefit other related research.

A desktop review was conducted on the following habitat assessment tools:

- EPA Biocondition tool
- Cotton Australia draft BMP vegetation assessment tool
- WA Water and Rivers Commission (WAWRC)
- Tropical Savannas CRC riparian assessment tool (TRARC)
- Habitat Complexity [HC];
- Biodiversity Benefits Index [BBI];
- Habitat Hectares [HH] and
- the Bush Toolkit [BTK].

Each tool was considered in terms of ease of use, ability to interpret and use, the assessment information produced and relevance to Emerald Irrigation Area vegetation.

Robyn McAlpine was unable to continue with the project, and another suitable student was not found.

Results

4. Detail and discuss the results for each objective including the statistical analysis of results.

This desktop review found that most tools to be very technical requiring a high level of vegetation knowledge and would be very time consuming. For these reasons they were not considered useful as general landholder tools. It was, however, determined that aspects of some tools could be combined to generate a simpler tool. This was not able to be tested in the field as Robyn McAlpine was unable to continue with the project.

Outcomes

5. Describe how the project's outputs will contribute to the planned outcomes identified in the project application. Describe the planned outcomes achieved to date.

Developed a reference list of assessment tools

Identified the need for flora/fauna fact sheet with indicator species for each cotton growing area.

6. Please describe any:-
 - a) technical advances achieved (eg commercially significant developments, patents applied for or granted licenses, etc.);
 - b) other information developed from research (eg discoveries in methodology, equipment design, etc.); and
 - c) required changes to the Intellectual Property register.

The project was not completed as Robyn McAlpine was unable to continue due to health problems.

Conclusion

7. Provide an assessment of the likely impact of the results and conclusions of the research project for the cotton industry. What are the take home messages?

Extension Opportunities

8. Detail a plan for the activities or other steps that may be taken:
 - (a) to further develop or to exploit the project technology.

There is a need to develop a simple and effective assessment tool that is less scientifically rigorous but valuable and effective for growers to use for monitoring habitat condition. However, it would need to be tested in the field.

- (b) for the future presentation and dissemination of the project outcomes.
- (c) for future research.

8. A. List the publications arising from the research project and/or a publication plan.
(NB: Where possible, please provide a copy of any publication/s)

Vegetation Assessment article in AG15 Newsletter

- B. Have you developed any online resources and what is the website address?

Part 4 – Final Report Executive Summary

This project aimed to find a suitable tool to assist growers assess vegetation condition. The desktop review of assessment tools, found most to be very technical, requiring a high level of vegetation knowledge and would be very time consuming. For these reasons they were not considered useful as general landholder tools. It was, however, determined that aspects of some tools could be combined to generate a simpler tool. This was not able to be tested in the field as Robyn McAlpine was unable to continue with the project.