Part 1 - Summary Details

CRDC Project Number: **CSP 171C**

Project Title: Capital Item: Lummus Laboratory Gin

Project Commencement Date: 01/07/2004 **Project Completion Date:** 30/06/2005

Research Program: Community & Capacity

Part 2 – Contact Details

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Part 3 – Final Reports

Background

Small laboratory gins are a vital piece of equipment in cotton research at the plant breeding and other subjects where small plots are used. CSIRO's plant breeding program has more than 30,000 small plots for ginning. Since the instance of Fusarium wilt, sites with that disease have not been sampled for ginning and fibre quality. This reduces the available information on fibre quality. One solution is to have a gin located at Goondiwindi or Moree for ginning samples from breeding or other plots, so fibre can be tested at a contract testing line in the same valley.

This plan would allow CSIRO's similar, but older gin to be left in Kununurra to be used for the maintenance of research capacity in northern Australia. The gin's most significant use in Kununurra is the ginning of >40 kg of seed for a large gene flow experiment, as required by the Office of the Gene Technology Regulator (OGTR) prior to the approval of Bollgard II® in northern Australia. This trial used a block of Roundup Ready® cotton as a pollen "source" and will measure its spread into Bollgard II® cotton by picking at numerous distances from the "source", ginning the seedcotton, then planting out and selecting for gene flow by spraying with Roundup®. OGTR licence conditions stipulate that all Bollgard II® trials must be completed by December each year and a gin is essential to achieve this.

Objectives

- Purchase new 10 saw gin.
- Modify for OH&S and QA protocols.
- Commission for 2004/05 harvest season and instigate a plan to have samples from Fusarium sites ginned and fibre tested while complying with ACR Fusarium protocols.

Results

- The gin has been successfully purchased, delivered and modified to appropriate operating safety standards.
- The gin ensures better and more comprehensive data from all sites and thus assists with better decisions on breeding line selection.

Impact of Results on the Cotton Industry

Having more comprehensive data sets from all sites improves data and the conclusions and recommendations from the experiments. This includes agronomy, pest management and breeding research.

Part 4 – Executive Summary

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