



Australian Government

Cotton Research and
Development Corporation

Smith JohnNSW

MAJOR CAPITAL ITEM REPORT 2017

Part 1 - Summary Details

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

CRDC Project Number: DAN1603

Project Title: Capital Item:

Project Commencement Date: 1/07/2016 **Project Completion Date:** 30/06/2017

CRDC Research Program: 1 Farmers

Part 2 – Contact Details

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Signature of Research Provider Representative: _____

Date Submitted: _____

Part 2 – Capital Item Final Report

1. Background

The cotton industry is rapidly expanding in southern NSW. The purchase of a cotton trial picker will significantly enhance the ability of NSW DPI Plant Systems Branch, and other research organisations, to deliver accurate results from existing cotton research projects in the southern connected systems. There is no other equipment of this type available in southern NSW, and equipment that is available across the broader industry is fully committed with no opportunity to share with the owners of the equipment.

This equipment will allow greater scientific rigour to current research trials and eliminates the risk of compromised experimental results that arise as a result of the current need for hand picking of cotton trials. Hand picking leads to reduced ability to measure treatment impacts and less confidence in research outcomes. The ultimate impact of this is a lower industry confidence in, and adoption of, best management practice identified within research, and reduced potential for farmers to realise productivity and profitability outcomes.

2. How does the Capital Item meet expectations and specifications?

The picker was developed in collaboration with Max Barnes CSIRO, Narrabri, who had developed the trial pickers for ACRI. With this collaboration from Max the picker has been developed and has now picked four of five field experiments that will utilise the picker this season with no problems (Figure 1).



Figure 1: The cotton picker developed with this project , picking one of the district field experiments in southern NSW.

3. How is the Capital Item being utilised to support your research or intended application?

The picker has been used to pick field experiments investigating the influence of nitrogen rate and irrigation system on nitrogen fertiliser recovery, the influence of irrigation watering time on nitrogen fertiliser recovery and the role of enhanced efficiency fertiliser in improving nitrogen use efficiency in irrigated cotton.

4. Describe the benefits of this Capital Item in supporting your research?

The picker has enabled a full research program that consisted of 308 experimental plots on the research station at Yanco Agricultural Institute and in commercial fields; this scale of field experiments would not have been possible without the investment in the picker.

5. Are there any Extension/Communications opportunities?

No

Part 3 – Capital Item Final Report Executive Summary

(This will be included on CRDC's website of final reports.)