



MAJOR CAPITAL ITEM REPORT 2017

Part 1 - Summary Details

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

CRDC Project Number: DAN1704

**Project Title: (Capital Item): Autoclave – ACRI Cotton
Pathology Laboratory**

Project Commencement Date: 1/6/2017 **Project Completion Date:** 30/9/2017

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

While NSW DPI and CRDC have agreed to co-invest in increased cotton pathology research capacity at ACRI, a recent audit of cotton pathology laboratory assets identified that the current autoclave is operating at full capacity and will be unable to service additional project demands.

The autoclave is a critical capital asset for ACRI as multiple NSW DPI and CSIRO research projects utilise the unit for cleaning and decontamination of laboratory glassware, media and waste. NSW DPI and CSIRO have discussed and reviewed usage patterns to identify potential solutions. Given that the current autoclave unit can only achieve a maximum of three cycles per 24 hours the only viable solution is to procure an additional 100 litre autoclave unit.

Additional autoclave capacity will support the analysis of key pathology issues and identification of potential solutions for disease control leading to delivery of improved integrated disease management strategies for cotton growers.

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

A Labec AA20 100 litre automatic autoclave was supplied by Laboratory Equipment P/L Marrackville Sydney and delivered to ACRI on the 18th September 2017. The Labec manufactured autoclave was deemed superior to other autoclaves offered by alternative suppliers. The Labec AA20 met all technical requirements as outlined in the request for quotation and was considered the best value for money.

Unfortunately NSW DPI experienced unforeseen delays regarding engaging the services of individual subcontractors to install the autoclave. The installation was completed on the 15th February 2018.

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

The Labec AA20 has been installed within the cotton pathology wash up room. In order to accommodate the increased autoclave capacity workspace modifications have been initiated financed equally by NSW DPI and CSIRO. Specifically carpentry contractors removed part of a bench and unwanted sink and electrical contractors performed the necessary electrical work.

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

Increased autoclave capacity is essential for NSW DPI to deliver on the following CRDC funded pathology projects:

NSW DPI

- CRDC DAN1703 Innovative Solutions to Cotton Diseases (lead agency DPI Agriculture)
- RRDP 1723 "Managing Verticillium Risk for Cotton" (Lead agency DPI Biosecurity)
- "Improving the management of cotton diseases in NSW cotton farming systems" (project waiting contracting – Lead agency QDAF - DPI Agriculture partner)

5. Are there any Extension/Communications opportunities?

No extension is applicable however NSW DPI would like to undertake a number of communications to industry to thank CRDC for the financial support. NSW DPI will be contacting Ruth Redfern Communications Manager CRDC to discuss.

Part 3 – Capital Item Final Report Executive Summary

CRDC and NSW DPI investment in cotton pathology research capacity at ACRI has increased since 2016-17 with the initiation of three new pathology research projects and the appointment of Dr Duy Le and Ms Aphrika Gregson.

During a review of cotton pathology research infrastructure NSW DPI and CSIRO identified significant deficiencies in autoclaving capacity at the Australian Cotton Research Institute – Narrabri.

Access to autoclaving technology is essential for many NSW DPI and CSIRO research programs based at ACRI as the current unit performs cleaning and decontamination of laboratory glassware, media and waste. After careful consideration NSW DPI and CSIRO agreed to approach CRDC to secure industry funding to procure an additional 100 litre autoclave unit.

Additional autoclave capacity will support the analysis of key pathology issues and identification of potential solutions for disease control leading to delivery of improved integrated disease management strategies for cotton growers.



Figure 1: New Labec AA20 100 litre automatic autoclave is doubling ACRI laboratory capacity to process waste and sterilise laboratory equipment. (new unit on the left side)
