



Australian Government

Cotton Research and
Development Corporation

FINAL REPORT

Part 1 - Summary Details

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

CRDC Project Number: CA1702

Project Title: 2016-17 Grower RDE Advisory Panels Capacity Building

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

Part 2 – Contact Details

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Part 3 – Final Report

Background

1. Outline the background to the project.

The Cotton Australia grower RD&E Advisory Panels provide a critical role within the cotton industry by providing practical advice on research, development and extension needs and priorities. This advice is important guidance to CRDC in its formation of five-year Strategic R&D Plans, Annual Operational Plans, Expressions of Interest for RD&E and resultant CRDC decisions as to project investments.

Cotton Australia facilitates 4 advisory panels that are aligned with the CRDC strategic plan priorities. The panels consist of up to 40 grower, consultant and ginner members from every cotton growing region.

The TIMS Committee is facilitated by Cotton Australia and the TIMS Technical Panels are facilitated by CRDC. TIMS functions as a cotton industry stewardship group, with broad representation from growers, research organisations, crop consultants and members of the pulse and grains industries. The agricultural chemical, biotechnology and planting seed companies that provide crop protection tools to Australian cotton growers approach the TIMS Committee for advice on issues associated with developing or amending resistance management plans for new or existing technologies. Cotton Australia is represented by 6 grower representatives, the TIMS Committee Chair, the Chairs of the three technical panels and the Executive Officer.

The Cotton Australia-facilitated Industry Biosecurity Group (IBG) has traditionally met annually to ensure that the cotton industry's responsibilities under the Emergency Plant Pest Response (EPPR) Deed are met. Development of an implementation plan through recent revision of the Industry Biosecurity Plan has led to a need to formalise this group to address key biosecurity needs of the industry. The IBG includes 1 grower and 1 staff representative of Cotton Australia as well as representatives from CRDC, CottonInfo, CSIRO, NSW DPI, QDAF.

Objectives

2. List the project objectives (from the application) and the extent to which these have been achieved.

The project facilitated opportunities for the development of stakeholder capacity for providing advice on RD&E issues, including technology stewardship.

The project provided for the travel, meeting and training expenses reasonably incurred by Cotton Australia in connection with the development of its grower RD&E Advisory Panel members and grower TIMS Committee members.

For this project, development opportunities were primarily associated with participation conferences associated with herbicides and weed management, supply chains, and digital agriculture. Participation in the CRDC discipline review around the People program was also included.

Member Representatives who participated in these forums generally developed a better understanding of the key inter- and intra- industry RDE priorities and as such, were better able to contribute to strategic discussions around these priorities.

Methods

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

Travel, accommodation and registration expenses were covered for Member Representatives and TIMS representatives attended presentations and discussions at a variety of industry-wide and discipline-specific conferences and workshops. This delivered improved knowledge and understanding for the following participants in their respective areas of interest/responsibility. A list of participants and conferences attended is as follows;

Workshop	Representation	Representative
Supply chain workshop, Melbourne 19-23 June, 2017	St George CGA Customers Panel	Rebecca Lindert
Australasian Weeds Conference, Perth 11-15th Sep, 2016	TIMS Herbicide Tolerant Crops Technical Panel	John Cameron
People Research Forum, Toowoomba 25 October 2016	Southern Cotton People Panel	Kate O'Callaghan
AFI digital disruption conference, Sydney 2-3 June 2016	Gwydir Valley CGA Farmers Panel	Murray Connor
	Namoi Cotton Co-op Farmers Panel	Joe Robinson

Outcomes

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

The project outcomes delivered capacity for informed stakeholder advice regarding cotton industry RD&E priorities, to underpin the industry's future profitability, sustainability and competitiveness through the following outputs;

- Identification of training and development opportunities for Member Representatives;
- Development and implementation of information sharing sessions and engaged discussions around strategic industry RD&E priorities;
- Provision of financial support to allow Member Representatives to attend and actively engage in discipline-based CRDC workshops, to identify key strategic RD&E priorities;
- Provision of financial support to encourage Member Representatives to engage in meaningful discussions around cross-industry strategic R&E priorities;
- Provision of forums for Member Representatives to share learnings from attendance at capacity building conferences and workshops, including provisions to share these learnings with all CGAs;
- Provision of an annual written report on the performance of the project in meeting the project objectives.

5. Please report on any:-

- a) Feedback forms used and what the results were
- b) The highlights for participants or key learnings achieved
- c) The number of people participating and any comments on level of participation

Overall comments

Member Representatives attending capacity building conferences were asked to provide either direct feedback to the Cotton Australia General Meeting, or in the form of contribution to Panel discussions.

All participants saw value in their participation through increased knowledge and understanding of key research gaps, as well as contribution to strategic discussions for RDE.

Specific feedback was captured from participants through telephone interviews. Their reflections are summarised as follows;

Kate O'Callaghan: Influencing the process for providing advice on RDE priorities

Informal feedback from Kate O'Callaghan has indicated that the approach used to develop and execute the *People Research Forum* could be regularly rolled out to improve the process for provision of grower advice to CRDC on key RDE priorities.

The power of this forum was ensuring that outcomes from research projects were relevant to industry. Group discussions enabled the Member Representatives to better understand the intent, methods and deliverables of each research project. This resulted in an improved ability to provide advice to ensure that the project outcomes were transferrable to industry. This process also provided transparency around the strategic direction of research programs, with implications for capacity building within the research community.

A recommendation has been provided to Cotton Australia that this process for Panel engagement with industry researchers should be continued for projects within the People Panel on a regular basis. It was also identified that other Panels would benefit from this approach to grower feedback, whereby researcher projects are discussed with the 'owners' of the problem to ensure practicable research outcomes.

This process was reported to significantly improve Kate's ability to Chair the People Panel RDE discussions, on account of developing a superior understanding of the objectives, methodologies and outputs of the People Panel research projects, as well as providing direct advice to researchers.

Rebecca Lindert: Future capacity building opportunities

The RMIT supply chain workshop has been identified as a capacity building opportunity for the entire Customers Panel, following positive feedback from Rebecca Lindert. Cotton Australia is currently working with RMIT to investigate development of a tailored short course titled Customised Product Knowledge Workshops in Textiles: Fibres, Yarns, Fabrics & Innovation.

Participation in the RMIT workshop has reportedly increased Rebecca's understanding of how the properties of cotton make it favourable or unfavourable for use in textiles, and how these decisions can influence the entire supply chain. For example, selecting the correct type of thread and stitch type can influence the cost, performance, and life of the garment however, these choices are often made on the capability of machines to perform certain tasks, rather than the end-of cycle attributes of a fabric. These interactions will be considered when assessing R&D opportunities for Australian cotton in the supply chain.

As a result of participation in this course, Rebecca has a greater understanding of the role of the cotton industry in investing not only in fibre attributes, but also the textile manufacturing process to ensure cotton is a favourable fabric of choice for current, and future applications. This knowledge will be applied to future panel discussions regarding new opportunities for industry RDE investment.

The networking opportunities provided by the course also delivered value; “It was great to talk to and hear from experts that had no bias towards a particular fabric but based their opinions on science and characteristics of how fibres and fabrics perform. It was particularly great to chat to the other participants from various backgrounds in the course (Sportsgirl, VIC police forensic department, bridal manufactures, Australian defence apparel, leather makers, fashion students, David Jones store womenswear manager, dry cleaning company, other small-scale designers)”.

John Cameron: Influencing industry-level responses to RDE challenges

Participation in the Australasian Weeds Conference has shaped John Cameron’s thinking around herbicide resistance management, thus influencing his approach to TIMS Committee & Technical Panel discussions and recommendations for herbicide stewardship and resistance management.

The resounding message from this conference was the herbicide resistance was real, and established across a range of actives and crops. As such, an effective stewardship approach for resistance mitigation requires not only a diversity in tactics, but also a changed approach to the problem.

A challenge for the cotton industry is to transition towards managing herbicide resistance rather than simply characterising it. Treating herbicide resistance similarly to a biosecurity incursion by rapidly identifying the problem and developing an initial response plan is critical to managing the issue. Currently the industry does not adequately support the transition of resistance suspicion to knowledge which limits the ability of growers to manage the issue. To enable this approach, growers need to have access to a process that allows them to confirm resistance to various modes of action, to enable them to make informed decisions around what control tactics to implement to prevent seed set.

Over the last 12 months, this thinking has been applied to discussions within the TIMS Committee and Herbicide Tolerant Crops (HTC) Technical Panel. Currently, the HTC Technical Panel is planning to assist Monsanto in promoting a free resistance testing program across the industry, and ensuring that the results of this testing service are provided in a timely fashion to enable growers to make informed weed control options.

Challenges around new technologies for weed control raised at this conference will also be considered in industry-wide discussions around weed management. For example, conversations around the utility of weed detection technology – whether it is best utilised as a targeted chemical application, a resistance management tool, or an escape control mechanism will be considered in future IWM strategies. Early stage research regarding utility of detection mechanisms to power other control measures such as automatic cultivators, microwave technology or steam treatment will also be considered. The implications for misuse of these technologies will also require consideration from a herbicide resistance/weed management perspective.

Budget

6. Describe how the project’s budget was spent in comparison with the application budget. Outline any changes and provide justification.

The project’s budget was spent in line with the application budget. No changes were required.

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?

The project facilitated opportunities for the development of stakeholder capacity for providing advice on cotton RD&E issues.

Member Representatives who participated in capacity building forums generally developed a better understanding of the key industry RD&E priorities and as such, were better able to contribute to strategic discussions around these priorities.

Participation in broader industry conferences also enabled Member Representatives to participate in cross-industry discussions around strategic RD&E issues – thus increasing awareness of the cotton industry RD&E priorities and allowing transfer of knowledge from other agricultural industries, back to CGAs and other Cotton Australia Members.