



Australian Government

**Cotton Research and
Development Corporation**

CGA FINAL REPORT 2015/16

Part 1 - Summary Details

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

CRDC Project Number: CGA 1705

Project Title: Weather Stations

Project Commencement Date: 1/10/16 **Project Completion Date:** 31/7/17

Part 2 – Contact Details

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Part 3 – Final Report

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

Background

1. Outline the background to the project.

The project objective was to build on an earlier project and fill some gaps in the Walgett area which do not have adequate weather information which growers can utilise to make management decisions and to help in reducing the level of off-target spray drift.

Objectives

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

The objectives were to establish more weather stations and build our knowledge of wind and temperature so as to reduce the incidence of spray drift in areas which are devoid of accurate weather information. The initial objective was to purchase one, more expensive weather station and 3 inversion towers to collaborate with a CRDC project with Graeme Tepper looking at predicting inversion risk. We soon established that inversion towers were not very accurate and businesses were unwilling to supply and support due to the possible risk of legal responsibility and along with this the weather data was still not accurate enough to include in Graeme's project anyway. It was then decided that a better use of funding would be to fill in more of the gaps where weather information is not available and purchase 3 weather station to be hosted on the Ozforecast website.

Methods

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

The methodology was to approach 3 different growers in an area lacking in weather data whereby they would purchase a weather station and SIM card and a plan to pay for data. These growers would also supply materials to erect the stations. The Walgett CGA would then reimburse growers for a large part of the cost thus allowing growers to claim the GST.

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 planned outcomes were to increase accuracy of weather information to ultimately reduce off target spray drift. This was initially sought through inversion towers and more weather stations which could compliment an existing CRDC project with Graeme Tepper. This was not possible due to incompatibility of equipment and so 3 weather stations were instead purchased to fill in gaps where no weather stations are currently situated thus achieving our planned 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

Conclusion

6. 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 Walgett area is a growth area especially in the area of Dryland cotton production but the biggest risk to that industry besides the weather is the threat posed by off target spray drift. Through this project and the last one undertaken by the CGA the Walgett area is building a valuable resource to better understand the weather and also to reduce spray drift.

Take home messages-

- Proactive steps to understand the weather at a regional level will help to reduce climate risk.
- Weather stations can provide valuable insight into weather conditions and this can help to reduce off target spray drift
- Regionally based weather stations can fill gaps in the data and provide valuable insights into local weather variables.

Extension Opportunities

7. Detail a plan for the activities or other steps that may be taken:

- (a) To tell other CGAs/growers/regions about your project.
- (b) To keep in touch with participants.
- (c) For future projects.

The next edition of the Cotton Wrap will have details of the project and how it was developed and funded. This will mean that growers across other CGA's and valleys will hear about this project. The Walgett CGA is planning activities this season around a crop competition and this will provide another opportunity to extend the knowledge about these weather stations, what they can do, where they are and how they can be accessed.

Future projects can build on this with more information on what tools are available from the BOM which could be extended by our weather Tech Specialist, Jon Welsh. Through this approach and learning from another CRDC project looking at inversions it is hoped to build our knowledge around this area as well.

