Part 1 - Summary Details
Please use your TAB key to complete Parts 1 & 2.

CRDC Project Number: CGA1701  CGA Dirranbandi Cotton Growers Association

Project Title: Weather Station Project

Project Commencement Date: 30/07/2016  Project Completion Date: 31/10/2016

Part 2 – Contact Details
Administrator: Brent Scott – Secretary
Organisation: Dirranbandi Cotton Growers Association
Postal Address: PO Box 322
Ph: 0438 227 228  Fax:  E-mail: brents@cubbie.com.au

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.

Currently our district relies on weather data from St. George Queensland (4487), which is 95kms north of our town, Mungindi in New South Wales (110kms away) or alternatively Walgett, which is 205kms from our district. We have irrigated cotton growers in the district who rely on this information to make critical business decisions. Often the data from St. George, Mungindi or Walgett is not indicative of our district weather conditions or local historical data. A local weather station unit would solve this.

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

A weather station unit has been installed in the Dirranbandi Township at the Dirranbandi Airport that has real time telemetry capabilities, online access and live constant data logging. This service can be located online at: http://data.bhsystems.com.au:8080/livedata/dcgaweather.html
Methods

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

DCGA applied for a grass roots grant and was successful. The association engaged the services of Bernie Harden from BH Systems who already has similar weather station units successfully working in the district, along with cotton grower clients in the region who use BH System telemetry products. Using the grant money received from the CRDC, along with additional funding from the DCGA, we ordered the weather station unit from BH Systems. In consultation with the Balonne Shire Council we received approval and was designated a site to install the weather station unit in the Dirranbandi township, which was suitable being equally accessible to all growers in the district and also having reliable mobile phone coverage for relaying data collected online. Bernie Harden from BH Systems, along with Balonne Shire Council and DCGA representatives then installed the weather station.

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.

• Growers will be able to make better informed decisions around irrigation scheduling, planting time in response to soil temperature monitoring or budgets and forecasting based on local historical weather data. All of this data was accessible live to growers during the planting period of this current season (2016/2017).
• Better informed decisions around water management and climate can now be made by utilising more accurate, locally relevant weather data, solar radiation, evapotranspiration and rainfall data, with improvements in water use efficiencies as a result. Improved nitrogen use efficiencies by reducing the occurrence of water logging events when locally relevant weather data is used in conjunction with irrigation scheduling. All local weather data is now available to all growers in the district live online to enable theses outcomes to be achieved for the 2016/2017 growing season.
• The Dirranbandi local community, businesses, school and all other farming enterprises now have access to a locally based weather station that provides locally relevant weather data and historical record keeping. This new facility has been shared with community groups.

5. Please report on any:-

a) Feedback forms used and what the results were

   None used / required.

b) The highlights for participants or key learnings achieved

   Dirranbandi Cotton Growers and the local Dirranbandi community now have access to a locally based weather station and data relevant to our district to make better informed decisions in their agricultural production enterprises. Local businesses, community groups, the school and Dirranbandi residents also benefit from access to this facility.

c) The number of people participating and any comments on level of participation

   13 DCGA grower members.
   A local town with an approximate population of 400-450 people.
   Balonne Shire Council and the St. George QLD Township.
Budget

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

Please list expenditure incurred. *(Double click inside the table to enter the data)*

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount excl GST</th>
<th>GST</th>
<th>Total</th>
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<tr>
<td>14/10/2016</td>
<td>Weather Station Unit</td>
<td>9,850.00</td>
<td>985.00</td>
<td>10,835.00</td>
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<tr>
<td></td>
<td>Standard Travel for Installation (BH Systems)</td>
<td>490.00</td>
<td>490.00</td>
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<td>TOTAL 11,325.00</td>
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Final invoice enclosed. BH Systems have been paid $8000 and the remainder to settle the account will come from the CRDC grant balance owing ($2000) and from the DCGA ($1325). All ongoing costs are unchanged and will be covered by the DCGA.

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 economic benefits will be improved yields, production system efficiency and reduced input costs – growers will be able to make better informed decisions around irrigation scheduling, planting time in response to soil temperature monitoring or budgets and forecasting based on local historical weather data.

The environmental benefits will be better informed decisions around water management and climate by utilising more accurate, locally relevant weather data, solar radiation, evapotranspiration and rainfall data. Possible improvement in water use efficiencies as a result. Improved nitrogen use efficiencies by reducing the occurrence of water logging events when locally relevant weather data is used in conjunction with irrigation scheduling.

The social benefits will be the Dirranbandi local community, businesses, school and all other farming enterprises will have access to a locally based weather station that provides locally relevant weather data and historical record keeping.
**Extension Opportunities**

8. 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.

Sally Dickinson, Development Officer for Cotton Info will be doing a story and photo to send to other cotton growing regions via the Cotton Info network to promote this grass roots project.

Bernie Harden from BH Systems has shared this project and its setup with the Darling Downs Cotton Grower Association who are looking at installing and using similar BH System weather stations.

A notice has been sent out to all DCGA members and local Dirranbandi and St. George community groups highlighting this project and details on how to access this facility.