



FINAL REPORT

Part 1 - Summary Details

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

CRDC Project Number: CFE01501

Project Title: Carbon farming in the Australia Cotton Industry (CFEO project ID: EO12-01-0118)

Project Commencement Date: 1 December 2014
Completion Date: 2017

Project
28 February

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.

Seedbed Media was appointed to provide communications support for CottonInfo's Carbon Farming extension and outreach project.

Seedbed Media's task was to provide project management, event management, media relations and writing expertise.

The CRDC Carbon Farming Project aims to focus on extension and outreach to growers – to better engage farmers about the potential benefits, especially profit benefits, of emissions reduction and carbon sequestration on their farms. The Project also seeks to educate farmers about how to do this, including exploration of the role of fertiliser and fuel inputs.

Objectives

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

The communications activities supported the project objectives, including:

1. To increase cotton industry understanding of emissions reduction and sequestration from cropping fields by June 2016.
2. To increase cotton industry understanding of carbon sequestration and emissions reduction in non-cropped areas of the farm landscape by June 2016.
3. To clarify to cotton industry participants the opportunities, benefits and trade-offs of participating in the CFI and/or implementing potential mitigation/sequestration options by June 2016.

Methods

Identify key messages and target audiences.

The Project engaged growers via four key topics:

1. Nitrogen (fertiliser) Efficiency
2. Energy Efficiency
3. Natural Resource Management
4. Climate and Seasonal Forecasting.

Each of these four topic ‘pillars’ formed the foundation of media communications which Seedbed Media employed on CRDC’s behalf, to deliver key messages to growers about the benefits of reducing their carbon footprint.

KEY MESSAGES

Seedbed Media used grower experiences, CRDC research, Grains Research and Development Corporation (GRDC) research and other material and specialists to support the key messages.

Key messages included:

1. Tissue testing is a valuable tool to better manage crop nitrogen demand with nitrogen supply.
2. Losses of applied nitrogen can be reduced from the 4 “R’s”; right rate, right time, right product and right placement (refer to myBMP nitrogen management module).
3. Rotating cotton with maize, sorghum or millet can sequester soil carbon deep in the soil profile and increase stored soil moisture capacity.
4. Energy efficiency auditing on farm can reduce emissions and offers cost savings on items such as irrigation pumps and farm machinery.
5. Riparian zones and woodlands are significant carbon sinks and managed carefully can offset emissions from cotton and grain production as well as enhance water quality and reduce erosion.
6. Understanding climate and seasonal forecasting can aid in decision making when scheduling irrigations, applying nitrogen, choosing crop selection and reduce on-farm emissions.

TARGET AUDIENCES

1. Australian cotton growers
2. Cotton agronomists and farm advisers

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

The communications project was delivered via the ROPE model: Research, Objectives, Program, Evaluation. It included media releases, case studies and multimedia packages of web video and article.

MEDIA PROGRAM

ACTIVITY	TOPIC	CONTACT	DATE RELEASED
MR 1	Energy efficiency benchmarking	Joseph Foley and Jon Welsh	June 2015
MR 2	Nitrogen Efficiency – Getting the most out of Nitrogen	Jon Welsh Chris McCormack (adviser) Pete Watson (grower) Dr Francois Visser	10 September 2015
MR 3	CFI Technical Forum	Jon Welsh, Richard Eckard, Jon Baird, Mark Howden	28 September 2015
MR 4	Preview of cotton conference	Jon Welsh	4 August 2016
MR 5	Ripping depth and ground speed	Joseph Foley and Gary Sandell, USQ	3 September 2015
Contract extension 2016			
MR 1	Solar power bore pumps	Janine Powell Jon Welsh	6 October 2016
MR 2	Automated furrow irrigation	Jon Welsh	Second draft sent for approval 24 February 2017
MR 3	REOs Nitrogen trial	Jon Welsh	Sent for approval 23 February 2017
MR 4	Emissions mitigation	Janine Powell Jon Welsh	Sent for approval 23 March 2017
MR 5	Climate – Cotton conference presentation	Walter Baethgen	5 August 2016
MR 6	Riparian Zone Research	Dr Rhiannon Smith	12 January 2017
CS 1	Pumps and fuel efficiency	Joseph Foley, USQ	Distributed
CS 2	Ripping depth and ground speed	Gary Sandell, USQ	Distributed
CS 3	Seasonal Forecasting	Jon Welsh Tony Taylor Goondiwindi	Distributed
Contract extension 2016			
CS 1	Auscott emissions study	Janine Powell	Sent for approval 22 February 2017
CS 2	Solar power case study Cottongrower	Janine Powell	16 September 2016

Multi-media 1 Video and article	Summary of Energy Benchmarking Story and video on Adam McVeigh	Joe Foley (USQ)
Multi-media 2 and CS 3 Video and article	Seasonal forecasting Tony Taylor Goondiwindi	Jon Welsh Tony Taylor Goondiwindi
Multi-media 3 and CS 1 Video and article	Solar pumping Andrew Gill Narromine	Jon Welsh

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.**
 1. 50%* of cotton growers have increased confidence in the use of seasonal forecasting information and are able to translate this into crop selection and nitrogen by irrigation decisions
 2. 75%* of cotton growers and 90% of advisers have an improved understanding of the CFI, emissions management and sequestration in cotton farming.
 3. 75%* of cotton growers and 90% of advisers understand how N₂O emissions can be reduced.
 4. 25%* of industry implementing plant tissue analysis to monitor crop nutrition balances to meet crop nutrient demand.
 5. 90%* of cotton growers have been exposed to the revised natural assets module by December 2016.
 6. 75%* of cotton growers and 90%* of advisers are aware of the CFI and have an improved understanding of the CFI and emissions management in cotton farming

*As measured through the CRDC funded Cotton Grower Practices and Cotton Consultants surveys conducted at the beginning and end of the project.

The successful execution of the communications function within the project can be evaluated on the following achievements:

1. Delivery of specified media outputs. ACHIEVED
2. Update by media of 100 per cent of outputs by at least one regional and one local media outlet. SURPASSED
3. Growers and advisers viewing project material from the CottonInfo website measured as website hits. ACHIEVED

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

Budget

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

The project was delivered within budget.

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 following outcomes can be measured in the Grower Practices Survey.

A measurable rise in awareness of carbon farming strategies among grower communities, specifically:

- An increase cotton industry understanding of emissions reduction and sequestration from cropping fields by June 2016.
- An increase cotton industry understanding of carbon sequestration and emissions

- reduction in non-cropped areas of the farm landscape by June 2016.
- Clarification to cotton industry participants of the opportunities, benefits and trade-offs of participating in the CFI and/or implementing potential mitigation/sequestration options by June 2016.