



FINAL REPORT 2015

For Public Release

Part 1 - Summary Details

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

CRDC Project Number: US1201

Project Title: Managing cotton farm safety review and update

Project Commencement Date: 1/5/12 **Project Completion Date:** 30/5/15

CRDC Research Program: 4 People

Part 2 - Contact Details

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Ph: **Fax:** **E-mail:**

Signature of Research Provider Representative:

Date Submitted: _____

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.

Health and safety are key issues for all agricultural businesses. In managing risks to health and safety, there are well acknowledged systems and processes that can enhance a business's capacity to not only meet legislative requirements, but also to enhance productivity. This is also important given the recent national harmonisation of the Work Health and Safety (WHS) legislation. The cotton industry has been a leader in relation to the adoption of health and safety processes in Australian agriculture. Notwithstanding this position as an industry leader, further work is required to strengthen on-farm systems and processes for health and safety.

This project aimed to build on existing gains by refining health and safety resource materials that are already available and widely accepted by cotton growers. Since the development of the Managing Cotton Farm Safety program and related resources in 2000, these materials have been incorporated into the myBMP program. However, since 2000 there have been considerable developments in cotton farming technologies, resulting in changed practices that have an impact on health and safety. In light of these changes, these resource materials required updating to ensure they meet current best practice.

The incorporation of the updated resources into the myBMP program ensures growers are able to utilise the best available information to support their health and safety systems and practices. Continued improvements in health and safety performance by the cotton industry will have a positive impact on restricting increments in workers compensation claims and also maximizing productivity.

Objectives

2. List the project objectives and the extent to which these have been achieved.

To update the existing Managing Cotton Farm Safety resources and incorporate the revised materials into the myBMP cotton program, to assist growers in their continued efforts to improve health and safety. In revising this information all elements of the nationally harmonised WHS legislation will be factored into the development process. The final product will also provide a one-stop shop for those producers that run mixed farming operations by linkage with the myBMP programs for grains, beef and sugar.

Methods

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

An Advisory Group consisting of cotton growers, cotton industry experts, Cotton Australia and the Australian Centre for Agricultural Health and Safety was convened to oversee the project. In 2012 the Advisory Group completed a WHS mapping of the existing myBMP and Managing Cotton Farm Safety resources to ensure they reflect current best practice in agricultural health and safety. Based on this review, the Advisory Group provided recommendations to modify and update the resources to meet the established best practice benchmarks.

Resources were updated based on these recommendations and then be piloted with a small group of growers to ensure their relevance and practical application. Results from the pilot were assessed and uploaded into the myBMP resources.

Following the initial review and update in 2012, the Advisory Group has met to review the most recent research and benchmarks in health and safety that are pertinent to the cotton industry and to refine the web based resources accordingly. In 2014 a significant review of the myBMP was undertaken externally to this project. As part of that review another WHS mapping exercise was completed and the myBMP platform updated accordingly.

Results

4. Detail and discuss the results for each objective including the statistical analysis of results.

List of documents developed and revised:

- Model WHS Policy and Plan Template
- BMP WHS & IM Planning Summary Checklist
- WHS Introduction Information
- Farm Safety Action Plan
- Tractors and Machinery Hazard Checklist
- Irrigation Motors and Pumps Hazard Checklist
- Vehicle Hazard Checklist
- Motorbike and Quad Hazard Checklist
- Workshop Hazard Checklist
- Chemicals, Fertilizers and Pesticides Hazard Checklist
- Field and Paddock Hazard Checklist
- Farm Equipment Hazard Checklist
- Cotton Picking Hazard Checklist
- Training and Induction Checklist
- Emergency Preparedness Checklist
- Injury Management and Return to Work Checklist
- Farm Safety Action Plan
- Cotton Contract Picking Safety Induction
- Cotton Harvest Safety Induction
- Cotton Farm Worker Safety Induction
- Worker Consultation Template
- Training Register Template
- Farm Injury Register Template
- Cotton Harvest Safety Guide
- Emergency Planning Templates
- Farm Emergency Card
- Medical Emergency Medical Form Template
- Asbestos Information and Register Template
- Confined Spaces Information and Entry Template
- Electrical Equipment Testing Register Template
- Fire Safety and Extinguisher Maintenance Register Template
- First Aid Kit Register Template
- Machinery Safety Maintenance Register Template
- Pesticide Storage Records Template
- Pesticide Application Records Template

Outcomes

5. 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 resources provide a comprehensive suite of materials to assist growers in meeting all current WHS obligations. The resources ensure that all growers are able to utilise the best available information to support their health and safety systems and practices. A key pre-requisite to improved safety will be increasing the utilization of these resources through the myBMP platform.

6. Please describe any:-

- a) technical advances achieved (eg commercially significant developments, patents applied for or granted licenses, etc.);**
- b) other information developed from research (eg discoveries in methodology, equipment design, etc.); and**
- c) required changes to the Intellectual Property register.**

N/A

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 resources are available and have been assessed by growers as relevant and practical. The ultimate test of the resources to define impacts will be on their increased utilization by growers. It is only through greater uptake that improved safety systems and outcomes will eventuate. The key message is for growers to systematically address safety by using all components of the available resources as part of their business operations. This will lead to better health and safety performance with a positive impact on restricting increments in workers compensation claims and also maximizing productivity.

Extension Opportunities

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

- (a) to further develop or to exploit the project technology.**
- (b) for the future presentation and dissemination of the project outcomes.**
- (c) for future research.**

(a) There is a sound basis for an annual review of WHS issues within the industry to ensure it maintains its leadership role within Australian agriculture. Furthermore, as technological advances in cotton growing continue to move forward, this necessitates that any potential WHS risks are evaluated prior to wider scale adoption of either specific technology or practices. It is recommended that an annual review of WHS issues be scheduled by the CRDC with key growers.

(b) Continued promotion of the WHS resources within the myBMP platform are important to maximize the potential uptake by growers. This should include continued liaison between the CRDC and CA.

(c) The resource materials are available, with the limiting factor being their uptake and implementation on a broader scale within the sector. In some instances growers believe that they are meeting all relevant WHS requirements, however when incidents occur and the relevant Work Health Authorities instigate investigations, the disconnect between what is being done and what is required is often apparent. Future research should investigate the effective uptake of WHS systems and resources through in-field assessments of current practice versus best practice over a growing season. Such behavioural safety approaches allow for positive feedback to be provided on aspects that growers are completing well while also pinpointing those which require attention. A small number of such assessments with a representative sample of growers (10-15) would provide highly useful information that could be de-identified and used to drive greater uptake of best practice WHS systems (drawing on the available resources as the sentinel information source). As alluded to above the key restriction is the uptake and usage of the resources by growers - such a behavioural safety study is the next iteration in the process to further WHS improvements.

**9. A. List the publications arising from the research project and/or a publication plan.
(NB: Where possible, please provide a copy of any publication/s)**

The full list of resources available on the myBMP site are listed above (Point 4).

B. Have you developed any online resources and what is the website address?

All resources are available on the myBMP platform.

Part 4 – Final Report Executive Summary

Provide a one page Summary of your research that is not commercial in confidence, and that can be published on the World Wide Web. Explain the main outcomes of the research and provide contact details for more information. It is important that the Executive Summary highlights concisely the key outputs from the project and, when they are adopted, what this will mean to the cotton industry.

Health and safety are key issues for all agricultural businesses and while the cotton sector is an industry leader in this area, further work was required to strengthen on-farm systems and processes.

In managing these risks to health and safety, there are well acknowledged systems and processes that can enhance a business's capacity to not only meet legislative requirements, but also to enhance productivity. This is also important given the recent national harmonisation of the Work Health and Safety (WHS) legislation.

Since the development of the Managing Cotton Farm Safety program and related resources in 2000, these materials have been incorporated into the myBMP program. However, since 2000 there have been considerable developments in cotton farming technologies, resulting in changed practices that have an impact on health and safety. In light of these changes, these resource materials required updating to ensure they meet current best practice.

In 2012 key industry stakeholders assisted in a WHS mapping of the existing myBMP and Managing Cotton Farm Safety resources to ensure they reflect current best practice. Based on this review, the resources were updated to meet the established best practice benchmarks and trialled with growers.

Resources were updated based on these recommendations and then be piloted with a small group of growers to ensure their relevance and practical application. Resources were then uploaded into the myBMP program.

The resources provide a comprehensive suite of materials to assist growers in meeting all current WHS obligations. The availability of these resources ensures that all growers can access the best available information to support their health and safety systems and practices specific to the industry. A key pre-requisite to improved safety will be increasing the utilization of these resources through the myBMP platform. Ongoing improvements in health and safety performance by the cotton industry will have a positive impact on restricting increments in workers compensation claims and also maximizing productivity