



January, August & Final Reports

REPORTS

Part 1 - Summary Details

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

CRDC Project Number: CRC8C

January Report: Due 29-Jan-01

August Report: Due 03-Aug-01

Final Report: Due within 3 months of project completion

Project Title: IPM Training Coordinator

Project Commencement Date: 01/12/98 **Project Completion Date:** 31/12/01

Research Program: Technology Transfer and Extension

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Part 3 - January & August Report Format

(Maximum four pages)

1. What were your major project objectives for the past year? (Please list).

- Complete several pilot courses amongst growers and consultants;
- Finalise short course structure and manual;
- Ensure that the course meets the criteria to receive accreditation under a National Training Program;
- Provide training recommendations for district IDO's and other staff under guidelines of the National Training Program so they can assist in delivering the course;
- Develop and implement a program which aims to have 12 - 15 courses established with 240-300 (20%) cotton growers attending the short course in that year;
- In co-ordination with National Extension Co-ordinator and IDO's restructure district IPM Support Groups and incorporate into the short course
- Establish links with CCA and other industry service providers who have a role in the implementation of IPM strategies. Aim to have 30 (30%) of private consultants attend the short course in that year;
- Promote the course throughout the industry;
- Have research groups participate in the future development and implementation of the program;
- Develop and implement an evaluation program to provide feedback from participants.

2. Which of these objectives have been achieved?

- ◆ Complete several pilot courses amongst growers and consultants.

Three pilot IPM short courses were over 50% completed by the 31st December 2001 and completed on the submission of this report. A total of 28 growers, 4 consultants and 2 internal staff received training in the Macquarie, Lower Namoi and Darling Downs.

- ◆ Finalise short course structure and manual.

The IPM short structure and reference manual has been completed although further refinement and development will occur on an ongoing basis.

- ◆ Ensure that the course meets the criteria to receive accreditation under a National Training Program

The course has been registered as a National Training Program.

- ◆ Provide training recommendations for district IDO's and other staff under guidelines of the National Training Program so they can assist in delivering the course

To assist with the IPM short course, District IDO's are required to have Certificate IV in Assessment & Workplace Training. Arrangements have been made through the National Extension Coordinator and Program Leaders for all IDO's to attend necessary training for this qualification.

- ◆ **Develop and implement a program, which aims to have 12 - 15 courses established with 240-300 (20%) cotton growers attending the short course in that year**

This is now recognised as a far too ambitious and unrealistic target due to time required for preparation, travel and other activities. It is planned to conduct 7-8 IPM short courses in 'Conference' years and up to 10 in other years.

- ◆ **In co-ordination with National Extension Co-ordinator and IDO's restructure district IPM Support Groups and incorporate into the short course.**

The IPM Training Coordinator has been working closely with the Boggabilla LandCare / AWM Group along other industry researchers and consultant to develop and implement a 'large scale pest management trial'. The results of this trial will be used in the IPM short course.

- ◆ **Establish links with CCA and other industry service providers who have a role in the implementation of IPM strategies. Aim to have 30 (30%) of private consultants attend the short course in that year.**

The IPM Training Coordinator has established links with the CCA and was invited to submit a paper and presented at the 2001 CCA Seminar. The IPM short course is initially targeting growers as consultants are not eligible for FarmBis subsidy and may be better served attending the Graduate Certificate course. A modified course aimed specifically at consultants is in the planning stage now.

- ◆ **Promote the course throughout the industry.**

Articles on the IPM short course have appeared in 'The Australian Cotton Grower' and 'The Australian Cotton Cd-Rom' in 2001. Several radio interviews have also been to broadcast and a TV interview. The course was promoted at the CCA Seminar in 2001.

- ◆ **Have research groups participate in the future development and implementation of the program.**

Inputs from some researchers have been a strong feature although input from others would have achieved a better outcome.

- ◆ **Develop and implement an evaluation program to provide feedback from participants.**

A design feature of the IPM short course is an inbuilt ongoing evaluation process throughout each component of the course. Furthermore, there is also a process of evaluation by both Farmbis and the Registered Training Organisation. The final component involves a Focus Group style process guided by an independent facilitator.

3. Which objectives were not achieved and why? (Please provide detail of any problems you have had during the year).

Staff vacancy both in this project and the RTO contracted to map course content against existing national standards and develop assessment checklists has seriously impacted on development of the IPM short course. Proactive steps are now being taken to rectify this problem and finalise mapping and assessment tools.

FarmBis funding was not initially planned into the project design. Growers attending the IPM short course are eligible for FarmBis subsidies. While this is a boon for the IPM project, it is taking a lot more time to finalise than first anticipated and this is impacting on other activities.

4. What are your specific project objectives for the coming financial year?

- Conduct up to up to 7 - 8 IPM short courses are planned for the 2002 /2003 season with the first scheduled in Emerald in the 1st week of July.
- The reference manual will constantly be updated to reflect any further information and changes.
- Finalise negotiations and appointment of RTO's and finalise FarmBi\$ subsidy requirements.
- Finalise assessment checklists for the course in conjunction with RTO's.
- Australian Cotton CRC appoint a commercial agent
- Produce flyers and further promote IPM short course.

5. What aspects of your research project do you envisage having problems with in the coming year and why?

A potential risk for the IPM short course is not being adequately supported by industry based researchers and other specialists in their fields for written research updates and other material, assistance with editing and most importantly with taking a turn presenting at the short course. Growers participating in the IPM short courses have an expectation for presentations directly from leading industry researches, consultants and growers. With only between 8 - 10 courses a year and willingness for all researchers to participate should limit the commitment of individual researchers to only two or three presentations a years. The CRDC may suggest to researchers receiving funding that a small contribution to training is highly encouraged.

NOTE: This question is aimed at identifying areas in which CRDC may be able to implement assistance to help avoid potential problems. ***Needs to also ask how they plan to rectify these problems

6. How has your research addressed The Corporations three outputs: Sustainability of natural resources, profitability and competitiveness, and/or people and communities?

It is anticipated that the IPM short course will develop sufficient interest, motivation and confidence in growers to implement appropriate IPM strategies. By learning together it is expected that growers will continue to communicate regularly in developing their IPM management systems. This will lead to quantifiable changes in farm management involving real adjustment in management of insect pests. There will also be long-term economic benefits and improved sustainability for cotton growers.

7. To what extent have your research results to date been disseminated to other researchers, growers or the industry?

Progress on the development of the IPM short course has been provided in conference papers, seminars and in a number of industry workshops and publications.

8. (a) **How will your research results be useful to other researchers /growers /industry in the next year?**

The IPM short course will be beneficial to participating growers and provide further adoption of IPM principles in pest management. The short course will be promoted extensively through all CRC channels.

(b) **How do you intend to communicate these results or findings?**

A comprehensive progress report was produced at the end of this funding period and has been submitted to the various stakeholders.

9. **Were there major highlights in your work over the last six months? Please give a brief outline.**

Completing the reference manual to a pilot standard and conducting pilot short courses.

10. **Are changes to the Intellectual Property register required?**

There is a need to register the IP generated by this project. It is understood that the Australian Cotton CRC is currently investigating a process for this to occur.

You may also submit a separate confidential report of information, which should be included in the report but which you reasonably consider is confidential information.

Part 4 - Project Variations for January Report

Detail and justify any variations to the original project proposal that you anticipate for the coming financial year (July to June).

(Eg Variations to outcomes or objectives, project time-line, budgets, or personnel).

Mascha Raymond will be joining the project as a part time (0.3 FTE) training extension officer. She will take over the activity of designing training activities and coordinating short courses in the Border Rivers / Gwydir region. This will not impact on CRDC funding requirements.

Part 4 - Final Report Plain English Summary

Provide a half to one page Plain English Summary of your research that is not commercial in confidence, and that can be published on the World Wide Web.

In recent years financial, environmental and regulatory pressures are threatening the sustainability of the Australian cotton industry and this demands a deeper understanding and adoption of all the available tactics to control insect pests.

IPM allows growers and others to control diseases, insects, weeds and other pests in a cost-effective, environmentally sound and socially acceptable way. Integrated Pest Management IPM in cotton is about using a number of tactics to manage pests in a way that ensures the sustainability of the industry. It is not about 'organic' cotton nor is it easily implemented. IPM in cotton is based on many years of scientific research and adoption is the accumulation of years of hard-earned experience.

IPM is a complex dynamic system requiring a change in attitudes to pest management. Knowledge, understanding and confidence are needed for IPM to be successfully adopted by growers in the Australian cotton industry. The third year review of the CRC for Sustainable Cotton Production recommended investigating the development of a short course to improve technology transfer.

In 1997 The Rural Extension Centre (REC) and Cotton Extension Team were tasked to conduct a subjective attitudinal evaluation of the adoption of IPM within the Australian cotton industry using a focus group process. The purpose of the study was to increase the understanding of the issues impacting on the adoption of IPM technologies and strategies in the Australian cotton industry.

Focus groups permitted exploration of the social, economic and technical aspects of IPM as raised at the time by growers (Couatts, 1997). Key issues that emerged from the study in 1997 were as follows:

- There existed a positive environment for the acceptance and adoption of IPM strategies in the industry.
- There was a lack of clarity about current best-practice IPM strategies.

- Economic issues remain the chief determinants of management strategies and yields remained the primary indicator for a successful crop.

On the recommendation of Coutts' (1997) report, the Cotton Research & Development Corporation (CRDC) and Australian Cotton CRC provides funding for the IPM training coordinator position whose role is to develop, in consultation with industry and researchers, a grower focused training short course in IPM.

The IPM short course program aims to develop:

- A comprehensive educational package, which clarifies the latest best practice for IPM as identified by industry experts (including growers).
- Economic links to IPM strategies, with the assistance of Australian Cotton CRC economists, within short, medium and longer-term timeframes.
- An extension program (including grower best practice groups) assisting growers to 'take responsibility' for management decisions, and emphasising economic sustainability rather than yield and linking this with the training program.

Growers will benefit from a clear understanding of IPM and the knowledge of what has been achieved by those participating in the training will encourage further innovation and adoption. The course will provide a forum for discussion, which should help to provide solutions to real problems and challenge current industry thinking. Perceptions about IPM such as delayed maturity and low yields can be replaced by positive considerations of maintaining profitability and yield while reducing reliance on chemical control measures.
