

SEARCH CRITERIA

Model	Model A: Empowerment Model
Industry	Cotton, Grains
Focus/Level	Industry
Outcomes	Building management skills
Special Interest Groups	Other

1. PROJECT TITLE:

Area Wide Management Groups in Cotton Growing Regions

2. FUNDERS:

Self-funded by participating growers. The Australian Cotton CRC and Cotton Research and Development Corporation provides funding for support time and activities by Industry Development Officers. Qld DPI provides funding for the Industry Development Officer and the IPM Grains/AWM Development Extension Officer on the Darling Downs and NSW Agriculture funds District Agronomists who also work with groups. Private agribusiness also provide support and coordination for some AWM groups.

3. PROVIDERS:

Growers and their consultants; CRC Industry Development Officers provide varying services ranging from group coordination to support officer.

4. KEY CONTACTS:

Ingrid Christiansen, National Cotton Extension Coordinator
Melina Miles, QDPI Entomologist

5. INDUSTRY/ISSUE/GEOGRAPHY:

The 'project' is based in the Cotton Industry with some involvement from the grain and horticulture industries in Northern NSW and Queensland. The primary issue being dealt with is the control of insect pests on a sub-regional basis rather than farm level only. As the groups mature many are expanding their interests as a group to include issues such as water, soil health, weeds and diseases.

Insect management, in particular Heliiothis, remains the key driver as there are definite opportunities to improve management through greater communication with neighbours. In the longer term, growers aim to move towards "true" AWM where pest and beneficial insects are managed on a regional basis.

6. PROJECT CONTEXT:

The cotton industry faces major challenges with pest management. Chemicals are becoming increasingly expensive and government regulation and resistance is diminishing the range of chemicals available for use. The risk of contamination of beef and pollutants in the waterways are also reasons why more effective and less chemical dependant control measures are being sought. Integrated Pest Management is being promoted and gaining acceptance in the Cotton Industry.

A key issue is that insect pests do not stop at farm gates and spraying/control programs can impact on adjoining farms and the wider catchment. Area Wide Management Groups appeared to have started as an industry strategy through the

initiative of the Boggabilla Landcare Group. The Emerald irrigation area had started its trap cropping program before this as a way of addressing issues related to Ingard® registration. Members of the Boggabilla group visited the area to look at what was being done. Dalton (2001) reports that in 1998 the group...*decided that insect pest management had become the single greatest threat to their viability and they made this a priority.* They approached this by adopting...*best practice IPM strategies throughout the group of farms as on management unit.* A local consultant (Iain MacPherson) was seen as a major driver behind the success of the approach. AWM on the Darling Downs involves all cropping sectors. This has been led by Julie Fergusson under a DPI initiative which commenced in light of the severe difficulties faced in Heliothis control across the Downs.

Other groups resulted and have been supported by the Cotton CRC, DPI and NSW Agriculture. There are 45 groups operating with an AWM approach – although with differing structures and activities with the common denominators being...*improved communication learning from each other; and adoption of IPM with peer support.* (D Kelly 2002 CRC Annual Review).

Because insect pests of cotton can also infest grain and horticultural crops and there are different management practices and approaches to pest control, an aim of the groups is to have cross-industry involvement.

7. PROJECT NICHE (SPECIFIC OBJECTIVES):

AWM groups provide a forum and framework for cotton farmers, cotton and grain farmers and other grain and horticultural producers and consultants to meet and work together to coordinate the management of pests on a regional or catchment basis. Dalton reported that...*a common goal of AWM groups is to strive for to preserve and nurture beneficial insect abundance and diversity for as long as possible during the growing season...by implementing IPM practices and reducing their dependence on insecticides, particularly broad-spectrum pesticides that kill insects indiscriminately.*

Particular value can accrue from communication between neighbours in pest management. Preservation of beneficials, delayed use of synthetic pyrethroids and coordinated trap cropping have been some of the key areas of focus for different groups.

8. PHILOSOPHY/APPROACH: GROUP FACILITATION/EMPOWERMENT MODEL.

AWM groups are directly grower driven with input/assistance from their consultants and Industry Development Officers. The philosophy is that growers can share their experience and plan an area-wide approach to pest control – learning from what they do as a group and from each other. Expertise is sought as needed and paid for by the growers.

9. RESOURCES, MANAGEMENT AND STAFFING STRUCTURES:

AWM groups have varying structures and management – some have emerged from Landcare groups and there are various levels of formality. Industry Development Officers play different roles depending on the group – from coordinator to technical support person. Consultants of the growers are also part of the groups and play varying roles. Some agribusiness groups support groups through secretarial services.

The groups find funding as needed – from their own pockets or through submitted projects (eg through Envirofund). The IDO support is supplied in-kind by the Cotton CRC and takes up approximately 1 day per month of officer's time.

Group meetings are a key component of AWM groups. However, it is difficult for even a strongly motivated group to meet more than monthly through the season and many decisions need more frequent data sharing. To overcome this, some group coordinators collate and fax out group members insect check and operations data on a weekly basis. One group has developed a website to communicate this information rapidly, the development costs have been met by the group.

10. PROCESS/METHODS USED:

AWM groups hold planning and discussion meetings and farm walks on members farms. Groups undertake benchmarking, share data and seek researchers to speak and demonstrate techniques. Many groups aim to make consensus decisions about key management options, with adherence to the group approach remaining voluntary.

11. IMPACTS TO DATE (AND EVALUATION APPROACHES USED):

Focus groups were undertaken across the cotton industry in May 1997 (prior to AWM groups) and in October 2001 – looking at attitudes to IPM, and in the latter case, experiences with AWM groups. In 2001, the Institute for Rural Futures at UNE undertook a survey of 173 CCA members (22% response rate) looking for qualitative and quantitative information about pest management and AWM Groups.

The conclusions of these studies were (Christianson and Dalton 2002):

- A high level, broad understanding of IPM principles and practices is evident across all industry sectors.
- The perception of IPM varies between regions.
- IPM was universally viewed as the use of a wide range of tools in overall farm management.
- The emphasis on different elements of IPM (such as beneficials insects, resistance management strategies, trap crops, damage levels) varied between regions.
- There was particular reference to the need to stay 'soft' as long as possible to avoid getting on the 'merry-go-round' of needing to spray.
- Growers and consultants were generally enthusiastic about AWM groups and the roles they play in building confidence and commitment to IPM.

12. EFFECTIVENESS:

A total of 45 AWM groups have been established across the cotton industry – accounting for approximately 300 farm businesses.

The evaluations concluded that the effectiveness of each of the AWM groups highly variable -depending on the area and group members.

The focus groups found that understanding and attitudes to IPM had significantly improved over the four years and that AWM groups played an important part. A large number of IPM approaches could be identified by growers with many being used at some level.

13. PROJECT DOCUMENTATION AVAILABLE:

Christiansen I & Dalton B (2002) *Understanding IPM – Industry Attitudes, Practices and Education*, Australian Cotton Conference.

Dalton B (2001) *A Community Development Initiative – Cotton, Catchments, Chemicals, Communities & Koalas, Sustainable Cotton Production for the Community*, Learning Report, REC UQGatton.

14. ISSUES:

The involvement of non-cotton growers – particularly grain growers - was seen to be important but was difficult to obtain in practice. The evaluations reported that...some

growers have indicated that they are close to giving up on AWM because of the lack of interest amongst growers in their area in using softer options. There was also reported frustration about AWM working well until pyrethroids were applied.

15. COMMENTS/CONCLUSIONS:

The 2001 focus groups provided a number of factors that contributed to success of AWM groups. These included: Must be grower driven; a key respected grower to lead the group; coordination and support from an independent facilitator (eg IDO); need to actively maintain interest; preference for small group size; informality – no formal meeting process; difficult issues (eg high aphid pressure) created more interest; both growers and consultants need to be involved.

16. REVIEW METHODS:

- Personal involvement in the analysis of focus groups undertaken to explore changing attitudes to IPM and experiences with AWM groups.
- Attendance at CRC review to hear reports of activities and successes of AWM groups.
- Analysis of papers and reports on AWM activities.
- Circulation of a draft analysis to key players in AWM groups to challenge and add to analysis.