

## STUDY TOUR REPORT     David Kelly, Development Extension Officer (Cotton). Emerald **United States of America (USA)**

A tour was undertaken to the USA by four members of the Australian Cotton CRC National Extension team. The tour group was as follows:

- Greg Salmond, Senior Development Extension Officer, QDPI, FSI (Dalby)
- James Quinn, Cotton Industry Development Officer, NSW Agriculture (Moree)
- Mark Hickman, Cotton Industry Development Officer, NSW Agriculture (Gunnedah).
- David Kelly, Development Extension Officer, QDPI, FSI (Emerald)

The principal objectives of my study tour were to raise my awareness and understanding of the following:

- the roles and methods adopted by USA extension staff, farmers, and consultants in the application of Best Management Practice (BMP) systems.
- the integration of the extension of technology with the implementation of such programs.

Other issues to be investigated include; extension practice, Integrated Pest Management (IPM), major advancements in Transgenic crops, and farming systems practice. All of these issues are at the forefront for the Australian Cotton Industry. These issues will be covered in more depth in the reports submitted by the other members of the touring party.

With respect to the development of BMP programs I took particular interest in the forces driving agricultural industries towards this change. Not unlike Australia, these forces stemmed from the issues of Environmental Impact, Workplace Health and Safety and consumer demand for 'clean, green' products. The intensity of the pressure placed on the agricultural industries in these regards varied from state to state and seemed to correlate positively with the extent of urbanisation.

We viewed with interest the different methods being employed to combat these problems, their effectiveness in addressing the issues, and the extent to which it hindered the farmer from doing business. The methods we observed were legislation, BMP systems, and general extension practice.

California is the most highly populated state we visited with a massive urban population and very intensive agricultural industries. Agricultural producers in California were governed very heavily by legislation ranging from the pesticide application laws to limits of products available for use. While this system is effective in preventing improper use of pesticides and reducing impact on the environment, the requirements are extremely rigid and almost prohibitive in the running of a farming operation.

We examined two BMP type programs in other states including Farm'a'Syst in Tennessee and Delta FARM in Mississippi. These systems were born out of the need for agricultural industries to demonstrate environmental stewardship, that being, responsible chemical handling and use, and management practices that minimised the impact that the operation was having on the environment. This gave these industries social and political capital which are of huge importance in relation to such things as the registration and availability of new chemical products. Both of these programs were excellent from an educational view point, providing excellent resources and a framework which farmers could set about a process of improvement. In both programs extension staff were incorporated as resource people in specific areas. We were very impressed by the level of training that the extension staff had in the USA, most holding Masters Degrees or PhD's.

My recommendations and conclusions from this tour are as follows:

- As the Australian Cotton Industry BMP program continues to evolve, the Australian Cotton CRC National Extension Team needs to cement its role as an important technical resource for growers through its explicit inclusion in the development of the manual to the incorporation of BMP issues into general extension activities.
- The regulation of agricultural industries in the USA is further advanced than what we have seen in Australia, although there is every indication that will soon happen here. As extension staff, we need to stay fully abreast of this by nurturing strong links with industry bodies such as local grower associations, Cotton Australia, and the Australian Cotton Industry Council.
- The USA extension effort received great benefit from the level of training of their staff. Australian Cotton CRC National Extension Team staff should be encouraged to undertake more specialist training in areas that would benefit the team and the industry in general.

I would like to thank the Cotton Research & Development Corporation for funding this study tour and the three other members of the touring party. I would encourage you to read the detailed tour report that follows.