COTTON INDUSTRY BIOSECURITY STATEMENT

2011-12

Cotton Australia recognises the need for the cotton industry to work with the federal and state governments to help reduce the potential for incursions of emergency plant pests that could adversely impact on production, domestic and international trade and the regional economy and environment. The cotton industry is committed to ensuring effective responses to pest incursions as possible to minimise costs to growers, the industry, other plant industries, government parties and the wider community.

The cotton industry through Cotton Australia is working with Plant Health Australia (PHA) to develop a comprehensive national approach to managing biosecurity risks in the cotton industry. Valuable assistance is received from researchers and staff from CSIRO, NSW Department of Primary Industries (NSW DPI), Queensland Department of Employment, Economic Development and Innovation (QDEEDI), Biosecurity Queensland, Cotton Research and Development Corporation (CRDC), Cotton Cooperative Research Centre (Cotton CRC), Cotton Seed Distributors (CSD) and the Australian Government Department of Agriculture, Forestry and Fisheries.

Solenopsis mealybug (*Phenacoccus solenopsis*)

On 17th February, 2010 the Consultative Committee on Emergency Plant Pests determined that a mealybug infesting cotton and weeds in the central highlands and Burdekin regions of Queensland was *Phenacoccus solenopsis* and that an eradication response was not feasible. Cotton Australia, QDEEDI and Biosecurity Queensland implemented a regional farm machinery hygiene protocol into and out of the central highlands and between farms within this region. The cotton industry, with the assistance QDEEDI and supported by researchers from other agencies such as CSIRO and NSW I&I also commenced pest management research into this new pest. CRDC has funded further research projects that aim for the integrated pest management of Solenopsis mealybug in a new QDEEDI project to commence in July 2011.

Cotton Industry Biosecurity Plan

The National Cotton Industry Biosecurity Plan, consistent with PHA’s National Industry Biosecurity Planning Guidelines, was launched in November, 2006. A major review of the National Cotton Industry Biosecurity Plan (Version 2.01) was released in January 2010. The awareness section identifies a range of existing industry processes, fact sheets and other sources of information for the 12 high priority identified pests that can be used to promote awareness of these.

Cotton Australia will work with Plant Health Australia and provide appropriate resources to the ongoing maintenance and biennial review of this plan.

On-farm biosecurity

The cotton Best Management Practices (BMP) program has undergone a major review by Cotton Australia and the new version, myBMP, was launched during the 15th Australian Cotton Conference in August 2010. The second generation myBMP program includes a “farm biosecurity module”.

CRDC funding enabled Cotton Australia, PHA and Biosecurity Queensland to develop the Cotton Farm Biosecurity Manual to support the myBMP biosecurity module. The Version 1 of this manual was also released at the 15th Australian Cotton Conference in August 2010. Printed copies (2,000) of the manual were subsequently distributed to cotton growers and consulting agronomists. Copies of the on-farm manual are also distributed at various trade shows and meetings for new growers.
Pest Categorisation
Of the 20 pests identified in the priority pest list of the Cotton Industry Biosecurity Plan, six have been categorised for inclusion in the Emergency Plant Pest Response Deed. Industry researchers, facilitated by Cotton Australia, have developed a priority ranking for the remaining uncategorised priority pests during (2010) in preparation for future categorisation.
Cotton Australia will, as far as it is within its power to do so, ensure that appropriate industry technical experts will be available to participate in future meetings of the Categorisation Group to consider either pest categorisation or funding weight calculations for Emergency Plant Pests with multi-industry impacts. Cotton Australia has participated in all relevant categorisation group meetings.

National Decision Making Processes/PLANTPLAN
Cotton Australia will endeavour to ensure that senior and qualified industry delegates are available at short notice to participate in meetings of the Consultative Committee on Emergency Plant Pests or the National Management Group and to take up roles in Local Pest Control Centres or the State Pest Control Headquarters in the event of an incursion. Cotton Australia will also endeavour to ensure that all delegates participate in relevant competency and non-competency based training, which is being delivered through Plant Health Australia’s Emergency Plant Pest Preparedness Training Program.
During 2011 Cotton Australia will review training requirements for member’s representatives and explore opportunities for training to be delivered through Plant Health Australia’s Emergency Plant Pest Preparedness Training Program in collaboration with the CRDC.

Enhanced cotton biosecurity capacity and awareness
Cotton Australia is the representative organisation for the cotton industry to the Cotton Research and Development Corporation (CRDC) and as such has a strong role in advising industry priorities for the Corporation’s R&D budget. Cotton Australia is committed to supporting proposed projects that enhance our industry’s biosecurity expertise.
Biosecurity research capacity for cotton was leveraged through scientific exchanges in 2010/11 supported by Grains RDC and DAFF. QDEEDI researcher Murray Sharman travelled to India in 2010 to work with Tobacco Streak Virus in grain crops and QDEEDI researcher Dr. Cherie Gambley travelled to Egypt to undertake a diagnostics training scholarship where she gained field experience with viral diseases, including cotton leaf curl disease, in a range of vegetable crops.
Dr Linda Smith of QDEEDI spent several weeks in the USA becoming familiar with the defoliating strains of Verticillium wilt under an Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) Training Scholarship in Diagnosing Exotic Plant Pests funded through the Office of the Chief Plant Protection Officer (OCCPO) in August 2010 and Karen Kirkby of NSW Industry & Investment at the Australian Cotton Research Institute in Narrabri spent 3 weeks in the USA receiving training on Bacterial Blight and developing capacity to identify the hypervirulent strains of the pathogen in July 2011.
Dr Murray Sharman, QDEEDI also received a DAFF Diagnostic Training Scholarship from OCCPO to travel to Brazil in February 2012 to gain skills in field and lab diagnostics for Cotton blue disease (Cotton leafroll dwarf virus). Dr Sharman has approved funding from CRDC for scientific exchange to Thailand in August, 2011 to meet researchers and learn more about Cotton leaf roll disease in situ and potentially collect reference material for validation of diagnostic assays.
Dr Lewis Wilson (CSIRO) spent a week visiting Dr John Adamczyk at Weslaco the south-west of Texas and gain an understanding of the Boll Weevil Eradication Program an the threat that cotton ratoons and volunteers pose to the success of this program. In a report to the Cotton CRC he highlight that if this pest were to enter Australia, the generally poor management of cotton volunteers and ratoons, both on farms and other areas, would severely hamper any local eradication strategy and greatly facilitate establishment of this pest.
The Cotton Catchment Communities CRC Development and Delivery Team have conducted extension activities under Farm Hygiene and Disease and Cotton Pest Management leads in relation to on-farm biosecurity.

Presentations on the risk of exotic Begomoviruses to the cotton industry were delivered at the Cropping Solutions Seminar day held in Moree on the 3-4th May 2011 and at the Northern Farming Systems IPM Researchers’ Forum held in Toowoomba on the 27th July 2011. The presentations also included photographs and descriptions of disease symptoms to improve awareness and increase likelihoods of early detections.

Several key industry publication that are widely used by industry now include specific sections to raise awareness of biosecurity risks. These include the Cotton Pest Management Guide, which is updated each year and delivers to every cotton grower and pest adviser, as well as the updated ‘Pests and Beneficials in Australian Cotton Landscapes’ which is due for publication in August 2011.

**Pest Surveillance**

Numerous pest surveys and crop monitoring activities are undertaken each season by cotton industry and State government researchers. Formal alignment of monitoring protocols for high priority exotic pests by all researchers now enables the collection widespread surveillance data throughout NSW and Queensland annually during routine benchmarking of endemic diseases (NSW DPI and QDEEDI early and late season disease surveys). Since monitoring for exotic diseases began in 2008 there has been no positive identification of any high priority exotic disease.

In addition most cotton growers employ consulting agronomists who generally conduct twice weekly crop inspections for pests.

CRDC has approved two new QDEEDI projects commencing in July 2011 for the surveillance and monitoring for endemic and exotic virus diseases of cotton and cross-industry preparedness for cotton leaf curl disease. Projects will increase capacity for both disease and vector surveillance.

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