Cotton Catchment Communities CRC
NSW DEPARTMENT OF PRIMARY INDUSTRIES

COTTON *TALES*

Southern New South Wales

James Hill, Regional Cotton Extension Officer – 6993 1608, 0447 773 791

2007/08
No.9
31/3/08

Day degrees for the period 5th Oct. to 30th Mar. 2008

Met site	7-Aug	6-Jul	Av. DD	Cold shock 07/08 (Ave)
Benerembah	2059.8	2116.5	1819	27 (49.9)
Hay	2076	2064.3	1884	30 (44.9)
Hillston	2133.8	2170.1	1982	24 (35.6)
Whitton	2051.5	2133.8	1815	26 (49.8)

Pale Cotton Stainers

Cotton stainers are recognised as occasional pests of cotton in Australia. Economic damage is unusual because of their;

- incidental control when using broad spectrum insecticides for other pests;
- inability to survive temperatures above 40ºC.
- need for free water to be present.

However in mild seasons BollgardII® crops may be a favourable environment for cotton stainers and they may need to be managed.

A new fact sheet on pale cotton stainers has been produced by the Cotton CRC outlining their lifecycle, identification, monitoring, damage, thresholds and management options. This is available on the web at **www.cottoncrc.org.au** under industry/publications.

Cotton Field to Fabric Training Course-

22nd – 24th July 2008

Managing for quality through the production chain

This training course is designed to give participants an overview of the entire cotton pipeline from the farm to predicting fabric performance. It is recommended for people involved in any part of the cotton industry from growers to technologists and aims to give a better understanding of how segments of the industry operate and how each relates to one another. The course recently won the Cotton CRC 'Impact in Adoption' Award and comes highly recommended. Places are limited due to the hands on nature so get in early! The next course will be held on the **22nd - 24th of July** at the CSIRO Textile & Fibre Technology Centre, Belmont, Victoria and costs $550 pp for the three days, including lunch each day and dinner on the Tuesday. Application forms can be downloaded from http://www.csiro.au/resources/pfzt.html or contact me and I can send one out. For more information please contact Rene van der Sluijs on 03 52 464738 or Rene.vandersluijs@csiro.au.

Diapause tool to identify helicoverpa risk

Diapause is the time of the year when a proportion of mature heliocoverpa larvae going to ground to pupate enter a hibernation phase termed diapause or overwintering. This dormancy strategy allows the pest to survive the winter months in temperate regions when host plants are scarce and temperatures are generally too low to allow successful development. The triggers to enter diapause are decreasing daylength and temperature, as experienced during late summer and autumn.

Picture of helicoverpa pupa in earthen cell.

The proportion of pupae entering diapause increases from low levels in March, to high levels (almost 100%) by late April. The rate of diapause induction varies from season to season, and region to region. Knowing when diapause is induced is useful for identifying 'high risk' fields i.e. those fields most likely to have diapausing pupae.

Overwintering pupae are very important because they contribute to the spring population and may take with them the resistance genes enabling them to tolerate conventional insecticides and the Bt transgenic toxins found in Bollgard II®. It is for this reason that full soil surface cultivation to 10 cm depth (also known as pupae busting) is so important. When carried out properly, pupae busting can reduce survival of overwintering pupae to less than 5%. *Pupae busting is mandatory for all Bollgard II® fields; it is a requirement of the Bollgard II® licence.* Some relaxation of pupae busting requirements has been introduced for conventional cotton fields. *Sprayed conventional cotton crops defoliated after 9 March are more likely to harbour insecticide resistant* H. armigera *pupae and should be pupae busted as soon as possible after picking and no later than the end of August.*

A web tool is available on the Cotton CRC website to help calculate the likely rate of diapause induction for your area, based on local climate data. The tool is also able to compare the results for the current season with the long term average and hotter than average and cooler than average seasons. Follow this link:

http://tools.cottoncrc.org.au/cl2/diapause/index.aspx

Thanks to Dr. Dave Murray, Prinicipal Entomologist, QDPI for this article.

Upcoming Events

1st April 2008- Climate Change Workshop at the Hillston Exservices Club.

29th April 2008 – School excursion to the Gin and to observe picking operations at Hillston.

1st May 2008 – Ground water workshop.