COTTON *TALES*

Darling Downs

Cotton Catchment Communities CRC

Queensland Government Department of Primary Industries and Fisheries

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Kate Charleston, Regional Cotton Extension Officer, 4669 0815
Jenelle Hare, Senior Technical Development Officer (RWUE), 4669 0825
Geoff McIntyre, Principal Extension Officer Cotton, 4669 0801

Reminder-Groundwater Systems workshops

A groundwater workshop will be held at the **Dalby RSL on Wednesday 7 May 2008.** The workshop begins at 8.30am and concludes at 4.00pm and is provided FREE.

The workshop aims to increase the knowledge among water users of the science behind how groundwater systems work and the management of those systems. While the workshop covers how the local groundwater system works it is not aimed at addressing policy on local bore allocations.

Participants will receive course notes and CD-ROM developed by the University of NSW Water Research Laboratory and a certificate of participation.

To register please contact Kate Charleston or Rob Welsh at Narrabri DPI office on 02 67992476 or email rob.welsh@dpi.nsw.gov.au

What is diapause?

This is the time of the year when a proportion of mature 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.

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.cotton.crc.org.au/cl2/diapause/index.aspx

Pupae destruction

Overwintering *Helicoverpa* pupae contribute to the spring population, and may take with them resistance genes enabling them to tolerate conventional insecticides and the Bt transgenic toxins found in Bollgard II®.

Pupae destruction is the most effective method of preventing *Helicoverpa* surviving and mating, hence minimising the risk of resistance. When carried out properly, pupae busting can reduce survival of overwintering pupae to less than five percent.

Full soil disturbance to a depth of 10 cm is required for effective pupae busting. By shattering the soil to this depth, it destroys the escape tunnel for pupae to emerge from and they become trapped and die beneath the soil surface.

Pupae busting is mandatory for all Bollgard II® crops. Pupae busting requirements for conventional fields are not as stringent **however** sprayed conventional cotton crops defoliated after 9 March are more likely to harbour insecticide resistant *Helicoverpa armigera* pupae. These fields should be pupae busted as soon as possible after picking and no later than the end of August.

Thanks to Dr.Dave Murray (QDPI&F) for this information.

Free Stress Relief workshop

Managing your stress and having enough time to do the things you want to do are the keys to getting the balance right in your life. There are some simple principles and skills that, when incorporated into your daily routine, make a significant difference to how your day flows. One of these is knowing the most effective relaxation method and technique for you and the different ways to incorporate that into your life.

A *free* interactive workshop will be held at the **Dalby RSL on Friday 9th May.** The workshop will provide you with some basic tools you can use on a daily basis to release stress, manage time more effectively and bring into focus the things you want to achieve in your life.

For bookings please contact Centacare Toowoomba on 4632 3604.