



# COTTON TALES

Central Queensland

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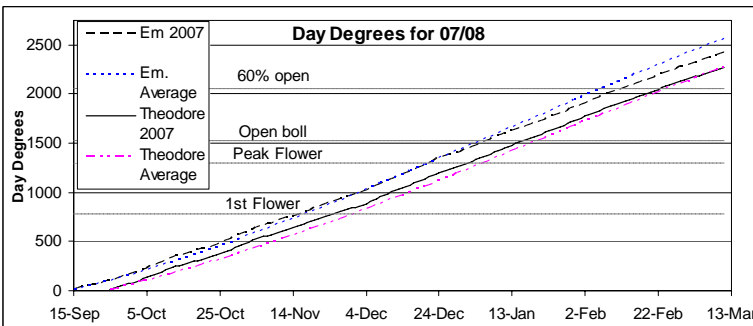
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2007/08

No.18

17/03/08

## Day Degrees



### Pale Cotton Stainers

Cotton stainers are recognised as occasional pests of cotton and there have been reports of this pest causing damage in the district this season. 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.cotton.crc.org.au](http://www.cotton.crc.org.au) under industry/publications or by contacting me.

### Cotton BMP Audits

Cotton Australia will be in CQ during the last week of May to conduct BMP audits. Please contact Cotton Australia for more information or to register your interest.

### Fibre Quality during picking

With most picking or about to pick, fibre quality is still a consideration. Maintaining spindles and doffers daily can assist in reducing neps. Contamination can be reduced through good farm hygiene, good picking height and good maintenance on hydraulics on pickers and builders.

### Watch for Weeds

Following the recent flooding, there have been increased reports of new infestations of weeds, especially in riparian areas. Regular scouting and timeliness of a weed control operation can have the largest single impact on control effectiveness. Remember herbicides are more effective on rapidly growing small weeds. Larger plants are difficult to control and can increase the number of weed seeds in the soil seed bank. Particular weeds to look out for include giant rats tail, rubber vine, parkinsonia, hymenachne, harissia cactus and prickly acacia. Information on these weeds is available from Natural Resources & Water website. If you are unable to identify a plant contact Duncan Swan, QDPI&F land protection officer, 0749837404 or Catrina Wolski at the Central Highland Natural Resource Management Group on 0419 672 900.

## Bt resistance monitoring up to Feb 08

Across all sampled valleys there were 28643 eggs submitted to the program until 13 February 2008. Of those eggs, 52% successfully hatched, 19% were parasitised (by anything, not just *Trichogramma*), and 29% did not successfully hatch presumably due to infertility, desiccation, damage or unsuccessful parasitism. Of the eggs that successfully hatched on cotton and pigeon pea, 42% were *H. armigera*.

EMERALD	5 Nov to 17 Dec	18 Dec to 16 Jan	17Jan to 13 Feb
number of eggs	900	693	0
% hatch	64	47	-
% parasitised	26 (13-37)	30 (10-65)	-
% <i>H. armigera</i>	11	29	-

The levels of egg parasitism are averages & values in brackets indicate range.

F<sub>0</sub> screens are likely to pick up only individuals that are homozygous resistant (RR) to Bt. In all sampled regions the total survival of larvae tested is not substantially greater than 2%, and is not markedly higher than the total survival detected in previous years. So the data does not indicate any major changes from previous seasons in survival rates to discriminating doses of Cry1Ac or Cry2Ab.

F<sub>2</sub> screens can detect heterozygote individuals (RS). They involve testing the grandchildren of pairs of moths raised from eggs collected from field populations, & takes 10 weeks to run. The screens test for genes that confer high level resistance that is likely to be of threat to the industry.

Species	Year	Cry1Ac F <sub>2</sub> screen		Cry2Ab F <sub>2</sub> screen	
		alleles tested	scored positive	alleles tested	scored positive
<i>Helicoverpa punctigera</i>	07/08	672	0	672	3
	Since 2002	2932	0	2944	6
<i>Helicoverpa armigera</i>	07/08	84	0	84	1
	Since 2002	2286	0	2290	13

BollgardII survivor work has focused on St George sampling. Unlike last season where 70% of collections comprised *H. punctigera*, the majority of surviving larvae from the 07/08 season collected at St George are *H. armigera*. This value is higher than the % of *H. armigera* in the sample of eggs collected during January and February in St George, and suggests that *H. armigera* may be differentially surviving on Bollgard II. Testing on larvae survivors and plant material is currently underway.

### COME CLEAN GO CLEAN

Contact: Natalie Dearden 0427 843 107 or  
Dereck Rolland (Rolleston inspector): 49843107