Cotton Catchment Communities CRC

NSW DEPARTMENT OF PRIMARY INDUSTRIES

COTTON *TALES*

Walgett

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2008/09
6.
12/11/08

Day Degree Accumulation to the 11th November 08

Walgett Airport	Season 08/09	Cold Days	Hot Days
15/09/08 – 30/09/08	130.2	9	
01/10/08 – 11/11/08	476.5	9	3

Crop Stages vs Day Degree Accumulation				
1st Square	1st Flower	Peak Flower	Open Boll	60% Open
505	777	1302	1527	2050

Mirid Biology

Thanks to Dr Moazzem Khan (QDPI&F) for help with this article. Parts of this article are from the new mirid fact sheet.

Being able to identify mirids correctly and understanding their biology can help in making spray decisions.

Of the two species of mirids commonly found in cotton (green and brown mirid), the green mirid is the dominant species, particularly in a cotton monoculture, (>95% of the mirid population). The proportion of brown mirids on cotton is higher in mixed cropping system (e.g. soybean, mungbean, pigeon pea, cotton), though it is still less common than green mirid.

Both green & brown mirids have an egg and 5 nymphal stages before moulting to adult. Under summer conditions, a generation of green and brown mirids (egg to adult) can be completed in about 2 & 3 weeks respectively. Adults of both mirids can live for 3-5 weeks and a female can lay up to 80 eggs in her life time.

Temperature is an important driver of mirid development. Optimum temperatures for both green & brown mirids are 30 to 32°C. At these temperatures, the development from egg to adult takes 15.6 &18 days in green & brown mirids respectively. When the weather remains cloudy & temperatures are around 32°C for a few days, green mirid populations will explode within a short time frame, faster than when temperatures are cooler or hotter.

Though warmer conditions generally lead to faster development, temperatures much beyond the optimum tend to reduce survival, and prolonged periods of very hot weather (>35^{o}C) can reduce mirid abundance. Heavy rain & strong storms can also reduce mirid numbers.

During winter mirid development slows down, however mirids are able to overwinter on a wide range of alternate hosts, including many common weeds.

Know your pest - Adult green & brown mirids may be confused with adult broken backed bugs & crop mirids. Nymphs of the green mirid may be confused with nymphs of broken backed bugs, apple dimpling bugs, aphids & predatory black mirids.

For further information a new fact sheet on "Mirid Biology and Identification" is available on the cotton CRC website and includes pictorial identification at different stages.
http://web.cotton.crc.org.au/content/Industry/Publications/Pests_and_Beneficials/Sucking_Pests.aspx

New Thresholds for Mirids

The new action threshold for beat sheeting for mirids is:
For irrigated cotton:
- Squaring stage: 4 mirids/metre and/or <60% retention
- Early boll stage: 3 mirids/metre and/or 60-70% retention

For dryland cotton
- 3/m and/or <60-70% retention throughout the season

To convert to visual count thresholds, divide beat sheet thresholds by 3.

For more information please see the 08/09 Cotton Pest Management Guide which should be out soon.

A Note on the Cotton Pest Management Guide:
I have had many enquiries as to when the Cotton Pest Management Guide will be available. The publication is due to be mailed out with the December Edition of CRDC's Spotlight Magazine.

The Cotton CRC's Cotton Production Course is calling for enrolments for 2009

The cotton production course is a highly regarded qualification for cotton industry participants in the growing and processing of Australia's cotton crop.
The course is also fully integrated into the Australian university system so qualifications are internationally recognized and can be used in further university awards, even Masters awards.
Please contact Dr. John Stanley on 0428 223 332 or email jstanle4@une.edu.au to discuss admission and enrolment details.
For more information see the Cotton CRC website at: http://www.cottoncrc.org.au/content/Industry/Education/Cotton_Production_Course_UNE.aspx