Cotton Catchment Communities CRC

COTTON *TALES*

Macquarie Valley

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Pest Pressure Considerations 2010/11

The abundance of vegetation in all cotton growing regions over winter and the warm, wet start to spring means there is potential for a large population of both insect pests ***and*** beneficials to be present this season.

Helicoverpa* Pest Pressure: *Professor Peter Gregg, Cotton CRC

Widespread rain throughout inland Australia has created an abundance of winter vegetation out to the Simpson Desert. There is a low density but very widespread population of *H. punctigera* present. The recent rains in inland Australia means we may not see a large early spring influx of *H. punctigera* as there will still be plenty of vegetation for them to breed on, however as temperatures warm up inland and vegetation dries off we can expect to see the population moving east by mid to late spring. The movement east may be staggered as there is plenty of vegetation in the western districts of NSW and Qld to host *Helicoverpa* along the way.

Locally, the widespread winter rainfall has provided plenty of hosts for *Helicoverpa armigera* to build up on.

Sucking Pests: *Dr Lewis Wilson CSIRO*

Thrips: potential for higher thrips pressure early season, depending on when other crops and vegetation dries down. Cotton usually recovers well from early season damage. Consider the effect on beneficials and Silverleaf Whitefly later in the season when considering control.

Mites: Mites move onto cotton from weeds in or around edges of fields. Good farm hygiene is essential. Monitor mite abundance, often early populations will decline due to predation.

Aphids: There will many aphids this spring coming off cultivated (crops) and non-cultivated (weeds) hosts. Most will not attack cotton. However, cotton aphid hosts e.g. marshmallow are also abundant. If winged aphids are seen on cotton, mark the area and return to it to see if a colony establishes and is reproducing before considering control. Also monitor these areas for cotton bunchy top. If aphids are present early in the season, follow the recommendations of the industry's IRMS and rotate insecticide chemistries taking into account the insecticide group of any seed treatment or at-planting insecticide.

Mirids: As with thrips and Helicoverpa, there is a large amount of vegetation that has hosted mirids over the winter period both locally and in inland Australia so there is the potential for reasonable pressure.

Silverleaf Whitefly: There have been plenty of hosts for SLW to survive on over winter and conditions have been reasonably mild in most cotton growing regions so there is potential for higher SLW numbers this season.

Strategies

Overall, moderate to high pressure of the key insect pests can be expected this season. However, the industry has the tools to manage these pests by following some simple IPM guidelines:

- Favourable conditions for a build-up of insect pests are also favourable for beneficial populations – give them a chance to establish
- Bollgard II® technology is very useful in years of high Heliothis pressure and will also control tip worm
- The cotton industry has excellent sampling and threshold guidelines for key insect pests that are continually being updated. Refer to the 2010-11 Cotton Pest Management Guide (CPMG) for threshold and sampling guidelines.
- There is now more selective chemistry available for use in both conventional and Bollgard II® cotton for controlling Heliothis and sucking pests. Table 19 in the 2010-11 CPMG shows the impact of commonly used insecticides and miticides on beneficial insects in cotton.

Key Messages

- *Practice good farm hygiene. This reduces the overwintering habitat of many key insect pests.*
- *Monitor pests, beneficials and crop development according to industry guidelines*
- *Use recommended pest thresholds to minimise insecticide use.*
- *Be as selective as you can when choosing insecticides to preserve beneficials.*