



COTTON TALES

Central Queensland

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Mealybug Update

In June, July and early September, entomologists from DEEDI conducted repeat surveys of five fields, in the Emerald region. These fields had a history of severe mealybug infestation last season. Mealybug were still present in the surveys despite crop destruction after harvest. In the most recent survey, mealybug populations are showing signs of increase, with high numbers of crawlers (newly hatched nymphs) on some plants. In the two previous surveys we did not see evidence of reproduction by the mealybug. In all surveys, predators, in particular ladybirds, were observed. In the September survey, good numbers of ladybirds were observed in and around fields. At this stage the predators were predominantly feeding on aphids, either on cotton volunteers or sowthistle aphid on sowthistle.

In particular, mealybug were found on volunteer and ratoon cotton. Fields with a high incidence of volunteers consistently had higher mealybug numbers. In the September survey, volunteer cotton seedlings within fields consistently had mealybug. This is of particular concern considering these plants are unlikely to be controlled before the cotton crop is sown, and therefore represent a potential source of infestation in this season's crops.

Broadleaf weed seedlings in, and around, fields are also hosting mealybug. In the first two surveys, mealybug were found on the plants and also as far as 5cm below the surface – perhaps overwintering here. In the September survey, fewer instances of mealybug on roots were recorded, but weed seedlings typically had mealybug on the below-ground stem.

Whilst it is very difficult to predict what will happen in Emerald this season with mealybug, some optimism can be drawn from the Burdekin's experience in their third year, where mealybug numbers were held in check by predators, and there were no sprays required on commercial crops. This rapid increase in the activity of predators, and decline in mealybug impact is what has been observed overseas where mealybug outbreaks have been experienced in cotton.

Recommendations

- Growers and agronomists should monitor field edges as well as in crop. Pay particular attention to areas which are stressed (wet, dry eg. taildrains, salt soaks) as infestations often develop here first.
- Monitor what the mealybug population is doing in terms of rapidly increasing, stable, declining. Record the relative numbers of adults and

juveniles, if crawlers are present in large numbers the population is increasing. Assess trends in abundance over consecutive checks.

- Look for, and record, any plant symptoms in response to mealybug infestations. A decision to spray may be warranted on the basis of observed plant response to mealybug (e.g. stunting) rather than on numbers – as we don't have any thresholds.
- Ensure all staff are aware of mealybug issue and encourage them to report presence.
- Select soft early season insecticides - given the need to rely on predators to control mealybugs, adherence to good IPM principles (including good agronomy, adherence to thresholds for other pests and preserving beneficials through selection of softer options) is important.
- Equipment and people are able to spread mealybug. If mealybug are detected, develop a plan for people and equipment movement that reduces this spread.

Crop Nutrition Soil Health Online Survey:

Help us help you : The extension team are surveying growers on their crop nutrition and soil health practices and decision making processes. Results from this online survey will focus research and extension efforts on priority areas which have been identified by you the grower.

<http://www.surveymonkey.com/s/K86HDL>

Rate your Risk for Glyphosate Resistance!

Are you concerned about glyphosate resistance on your farm? Should you be?

Assess your on-farm risk of developing glyphosate-resistant weed populations and test out strategies for reducing it with a new tool developed by DEEDI:

http://www.dpi.qld.gov.au/26_16653.htm

(or via myBMP – IPM module resources)

Enter information on your current practices (including crop rotation, crop density, and weed control tactics), and which weed species you usually have to control.

The tool then calculates a glyphosate resistance risk score for the paddock, and a level of risk for each weed identified. It also provides information on how risky your practices may be, and where you may be able to improve.

You can use the tool more than once, to rate different paddocks on your farm or to try out different scenarios.

DO YOU WANT TO KNOW MORE? Contact Susan Maas 0749837403