

The Macquarie Bale up

January 2015

what's going down in cotton town.....

By Amanda Thomas

Cloudy weather impacts

It seems to have cleared up for the moment and our cotton plants will be doing their best to compensate for the cloudy weather, with this in mind Here is an exert from a past Cotton Tales by Susan Mass and Sally Ceeney from 2010/11 season.

Rainy day and cloudy implications

How will the plant respond in cloudy weather?

The low radiation may lead to some shedding of squares, as plants cannot produce the food (energy) to support them. Plants will compensate for shed squares when sunny conditions return. It is important to ensure the plants have sufficient nutrition and water at this time to compensate & that Pix is not over used as it can suppress the production of new fruiting sites. It is best to assume that if early squares are shed a good yield will only be achieved on a taller plant because new nodes are required to replace lost squares.

NUTRITION MONITORING & APPLICATION

Petiole testing is not an option during cloudy, inclement weather. However, leaf tissue testing is the better option when weather conditions improve, to identify which nutrients may be lacking. Nutrilogic can help interpret results.

(<http://cottassist.cottoncrc.org.au>) Foliar fertiliser formulations that include N, P, Fe and Zn will probably be the most helpful, but best to wait until the sun shines.

VEGETATIVE GROWTH MANAGEMENT

Due to the indeterminate nature of the cotton plant the vegetative and reproductive growth occur in parallel and it is important to keep the reproductive and vegetative growth in balance. Crops that are too tall and rank are difficult to manage and pick and will not yield at potential, however short determinate crops may be limited in yield potential and can struggle to compensate if fruit loss occurs during future cloudy periods.

It is important to closely monitoring vegetative growth rate (VGR), fruit retention & boll size. If excessive vegetative growth is detected, the use of mepiquat choride (PIX®) should be considered. Growth regulator applications combined with moisture stress can result in yield reductions. Multiple small doses of Pix are usually better in these situations.

Picture 1. Cotton waiting for clouds to go



From the researcher's desk

By Sally Ceeney. BT Cotton and Insecticide stewardship Technical Specialist.

Abamectin resistance in Two Spotted Mite Increasing. Results from the 2013-14 resistance monitoring program show a concerning increase in the incidence of abamectin (Agrimec®) resistance in Two Spotted Mite (TSM).

Positive resistance results to abamectin in Two Spotted Mite (TSM) have rarely been detected

until 2010-2011, when abamectin resistance was found in three out of the four TSM strains tested. Since then abamectin resistance has been regularly detected. This past 2013-2014 season abamectin resistance was detected in six out of the eleven strains tested and worryingly one of those strains comprised 79% resistant TSM.

These results for abamectin suggest restraint in usage is now required. A common use pattern for abamectin has been to apply in combination with mirid sprays as an 'insurance spray'. Mirid sprays can be disruptive of beneficials so the inclusion of abamectin reduces the risk of subsequent mite outbreaks. However, this practice may ultimately lead to abamectin failure against mites. In general, the numbers of TSM in crops across most regions has dramatically reduced. This would suggest that insurance

sprays against mite outbreaks in most situations may be unnecessary, and may be having a negative impact by increasing the levels of abamectin resistance.

Issues to consider:

- Spraying mirids below threshold may increase the chances of flaring other pests, such as mites and SLW
- The use of an 'insurance' spray against mites at below threshold values may increase the risk of resistance

Take Home Messages:

- Control pests at or above industry recommended thresholds
- When making spray decisions and insecticide choices, consider the impact on beneficials and risk of flaring non-target pests
- More information on insect thresholds, control options and impact on beneficials can be found in the 2014-15 Cotton Pest Management Guide. <http://www.crdc.com.au/publications/cotton-pest-management-guide-2014-15>

Picture 2. Two spotted Mite on cotton leaf



What's coming up

Irrigation field day on the 12th of Feb out at the "Willgas" at Nevertire . Tom Quigley will host the day and we will have 7 researchers out in the field able to discuss how growers can implement their research on their farms. Flyer should be out soon.

Insect workshop this will be in the first week of Feb date to be decided, Lewis Wilson will come and chat with growers about the latest research findings and how we can stay on top of the game. So let me know what you want to focus on.

What to watch out for

Verticillium has been on rise around the Narrabri region, cases are rolling in everyday so, with all the cloudy weather it a good idea to keep an eye out for it around here as well. In a nut shell symptoms are a mottled leaf and discoloured xylem in the stem, see below or your cotton pest management guide for a refresher. I have hard copies and USB copies of all the latest publications so give me a shout and ill get one to you if you don't already have them.

Pic 3 : Cross section of infected stem



UGA3036029

www.planthealthaustralia.com.au/wp-content/.../Verticillium-wilt-FS.pdf

Silver leaf whitefly numbers can increase very quickly so keep an eye out around your farm, a good indicator, if you need to put the windscreen wipers on you could have an issue, or in the field if you emerge and don't . Don't let it get to that point, there are some good tips available to manage this pest all season long in the pest management guide.

Some CottonInfo clips that might be of interest

Benefit of Beneficial's

https://www.youtube.com/watch?v=g3GYrt6QoN8&feature=player_detailpage

How to sample whitefly

<https://www.youtube.com/watch?v=-xGrU2-h6Vs>

Please call me if you have any burning questions or see something that does not look right on your farm or in your crops, I can put you in touch with the right people

Thanks Amanda

CottonInfo is a joint-venture of CRDC, CSD and Cotton Australia