



the cotton wrap

February 2022

Well, isn't 2022 flying by! It is always a busy time of year, but it feels as though the past two months have just disappeared. From peak flowering through January to open cotton towards the end of February, the crop has come a long way.

Some cloudy weather in early February led to shedding events of varying severity in most crops, however boll counts remain strong. Interestingly, in some crops the plant cut itself out without the need for growth regulant (mepiquat). Most growers have since applied growth regulant as the weather conditions turned favourable for the crop to begin growing again. First defoliation looking at end of March for early crops with the later crops to follow.

The forecast at this stage remains cooler than average, with a cold front looking to push through mid-March bringing some rain events with it.

Disease Update

Verticillium Wilt

Incidence of Verticillium Wilt has been on the rise throughout the season. Fields are showing disease symptoms of varied severity, but incidence is increasing.

As an industry we know Verticillium Wilt is an issue and are concerned that given the conditions experienced recently, it is likely to be a major issue heading into next year. Soil inoculum levels are likely to be high and there is high chance of back-to-back cotton fields planted next season which



could result in severe disease impacting the crop. Please keep an eye out for some information coming in the next few months about management of Verticillium Wilt on your farm.

Alternaria

Incidence of Alternaria have been noted coming in earlier this year (usually late March/early April)

Duy Le from NSW DPI stated for one crop he had seen “Low temperature, morning dew, waterlogging, nutrition deficiency, combined with previous cotton crop are all possible contributing factors”. There is concern surrounding how early this seems to be affecting the crops this season and what it might mean for defoliation and maturation of the crop.



Figure 1: Alternaria infected cotton plants. Note lesions and curling of affected leaves.

Eutypella

Commonly known as Reoccurring Wilt, Eutypella is starting to show up in more fields across the area this season. Up until now incidence in the Namoi valley has been low. Common symptoms include wilting of otherwise healthy leaves, discolouration of top leaves, and blackened stems just above ground level. Symptoms can appear quite similar to Verticillium Wilt, so stem cuts are essential for correct identification. Stems must be cut at or below ground level as this is where the Eutypella infection will be visible. Even with wilting higher up the plant, you are unlikely to see impact in the stem if you cut too high. Eutypella is a relatively new disease and how it spreads is still under investigation. The best thing to do if you see this in your crop is to get it correctly identified.

The following images are all *Eutypella* infected cotton plants. Note the rapid wilting occurring at various growth stages of the crop.



Figure 2: *Eutypella* infected plants in the field showing completely blackened stems of earlier infected plants compared with wilted leaves of others.



Figure 3: *Eutypella* infected plant. Note the blackened colouring on the stem at the lower nodes. Interestingly, this plant is carrying a high boll load; infection has come later in the season and is only affecting the plant now.



Figure 4: Stem cuts of Eutypella infected cotton plants. Note the red and dark discolouration in the stem. The bark will also darken, become hard and easy to peel off. Often the infection will start on one side of the plant before spreading. Where this happens, you may also see wilting of leaves on one side of the plant only before it spreads.

Please send in samples for identification. Ensure to dig out the whole plant (pulling can break off secondary roots which are important for identification of pathogens), place in a paper bag and send samples to:

PLEASE SEND ALL SUSPECT FUSARIUM SAMPLES TO QLD DAF.

NSW: Send samples to:

Attn: Duy Le NSW DPI

Australian Cotton Research Institute

21888 Kamilaroi Highway

Narrabri NSW 2390

**For enquiries, phone Duy Le: 0439 941 542 or
(02) 6799 2427**

QLD: Send samples to:

Attn: Linda Smith Eco Sciences Precinct

QLD DAF GPO Box 267

Brisbane QLD 4001

**For enquiries, phone Linda Smith: 0457 547
617 or (07) 3708 8456**

Defoliation – looking at future opportunities

A CRDC-funded research project is currently underway to investigate opportunities for new technologies and management practices to improve defoliation. The project is being run by ICAN (Independent Consultants Australia Network) and at its conclusion next year it will provide a report to inform future research into defoliation. The ICAN team is looking at defoliation from a grower and agronomist perspective, what alternatives are available (pros and cons) and management strategies with potential to improve defoliation outcomes.

The ICAN team are currently speaking to agronomists and growers as part of their research. If you would like to share your thoughts on defoliation with them – what works, what doesn't, and what you would like to see, please email or phone John Cameron (ICAN) m: 0427 209 709, e: john@icanrural.com.au

Do I have Silverleaf Whitefly or Greenhouse Whitefly?

Reports have been received from several regions that greenhouse whitefly, *Trialeurodes vaporariorum*, is present in sizeable populations in some fields in addition to silverleaf whitefly *Bermisia tabaci*. This species was last commonly encountered in cotton fields during the previous 2010-2012 run of wet years. Nymphs can be readily distinguished from SLW as they are distinctly hairs, and the adults are larger with broader 'moth like' wings that SLW. Greenhouse whitefly are attacked by a similar range of natural enemies to SLW.

While greenhouse whitefly populations are less likely to expand at the same rate as SLW, both whitefly species secrete honeydew. From a management perspective, if numbers are high greenhouse whitefly should be monitored and treated in the same way, with the objective being to avoid lint contamination. Below are some images to help identify Silverleaf whitefly vs Greenhouse whitefly.



Greenhouse whitefly nymph and adult.

Silverleaf whitefly nymph and adult.

Figure 5: GHW compared with SLW. Note the distinct hairs on the greenhouse nymph versus no hairs and easily visible red eyes on the silverleaf whitefly. The main differences between adults is wing shape. Greenhouse whitefly wings lay flat and overlap, whereas silverleaf whitefly wings are peaked like a roof and

CSD Update

Last week CSD and the Lower Namoi CGA hosted their annual field day. Unfortunately, recent rainfall meant the event was held indoors, but there was still a good turnout of attendees. Around 70 people from across the Namoi attended and enjoyed some interesting presentations on cotton breeding, various trial results, digital tools and a BBQ dinner afterwards.

ACRI Tour

On Thursday 24th February a group of growers, consultants and industry head over to the Australian Cotton Research Institute to meet with some of the researchers. We heard about what projects are

underway and discussed what the growers are seeing on farm. The ACRI is a fantastic facility with so much happening, and after having been closed to most visitors during the pandemic and lockdowns, CSIRO and DPI were excited to have visitors once again to the site. This tour (or a similar one) is something that could be run many times and I would be happy to assist with organising this should an opportunity to bring grower groups to the site arise. Please get in touch if you wish to discuss this further.

Cotton Dogs Calendar

The CottonInfo team is putting together a calendar featuring photos of dogs on cotton farms. All submissions welcome. High resolution photos are preferred and please include the name of your four-legged friend. Send to me: emma.lambeth@cottoninfo.net.au

My dog 'Ally' out bug checking cotton with me during the 2019 fires at Boggabri.



Dates for your Diary

March

- Various GRDC Updates online and in person – use link [here](#)
- Cotton Management Field Day – 'Appletrees' Wee Waa 2nd March – watch your email for more information!
- AgSkilled and Tocal College Cotton Pest Management Course is on 3-4th March 2022 in Narrabri. Email tocalskillstraining@dpi.nsw.gov.au for more information.

- CGS are hosting a defoliation roadshow featuring Don Biffin, technical authority on the use of harvest aid products for cotton. For more information contact your local CGS branch manager. Local dates as follows:
 - o Gunnedah 16th March 2022
 - o Wee Waa 17th March 2022
 - o Moree 18th March 2022

All the best,

Emma

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