



Information when you need it



March 2018

Welcome everyone to the newsletter of the Border Rivers, St George and Dirranbandi areas "The Cotton Thread"!!! I hope you enjoyed the first edition and found some useful information in it. Thank you to those who passed on the positive feedback.

We are really on the home straight now with picking of early cotton already started in St George and Dirranbandi and it won't be long until it starts in the Goondiwindi area. Everyone seems very tight lipped regarding yield, however feelings are generally positive about boll loads. We will see what the pickers tell us!

Look forward to catching up soon,

Thanks

Sall

MacIntyre Valley Field Day this Wednesday!!!

MacIntyre Valley Cotton Field day

Field day hosts, Tom & Charm Arnott "Fairfield" Boggabilla

Wednesday 14 March, 7.30am @ Fairfield Silo's for a BBQ breakfast and registration

The first speakers will start at 8.30am and we don't want you to miss the buses!

Proudly supported by Monsanto.

BBQ lunch, gold coin donation

Be sure to get along the Mac Valley field day this Wednesday. Not only will you hear some great speakers and keep up to date with industry information, but the chance to catch up with other growers in the valley is priceless!!!

The committee have put together a great program for you:

- An Overview of Fairfield - Tom Arnott, Fairfield Farming, Agronomic Season Overview - Tony Taylor Taylor Ag Consultancy
- Principles of Crop Defoliation – Michael Bange, CSIRO
- Silverleaf Whitefly Management - Richard Sequeira, QDAF
- Camera Spray Technology and Drift Management - Frank Taylor, Nufarm
- CSD Ambassador Program Update - Chris Teague, Cotton Seed Distributors
- Xtend Cropping System Update - Tom Luff & Merry Conaty, Monsanto
- LoRaWAN Technology Update - Tom Dowling, Goanna Telemetry Systems
- Managing Sub-Soil Constraints with Precision Tech - Brendan Griffiths, Griffiths Agriculture
- The Future Agronomist – Brooke Sauer, McGregor Gourlay
- Current and Future Activities Update - Adam Kay & Simon Corish, Cotton Australia
- International Marketing Developments – Cliff White, Australian Cotton Shippers Assoc.
- Tradeshow & refreshments

Contact Rob Austen 0429 659 709 for more information or to RSVP

Disease

Which wilt is that?

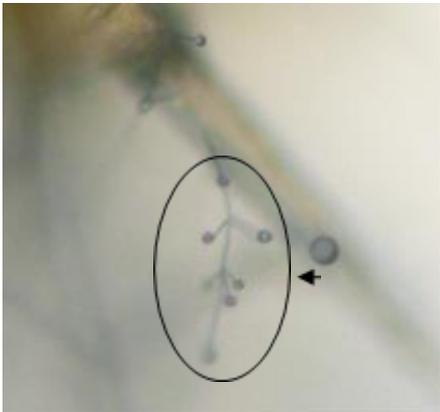
This season, numerous stem samples have been received at ESP for confirmation of wilt pathogen. In some cases, the disease observed in the field has been presumed to be caused by *Verticillium dahliae* (Vd), the cause of Verticillium wilt, however, upon isolation of the pathogen, *Fusarium oxysporum* f. sp. *vasinfectum* (Fov), the disease was actually Fusarium wilt. The disease symptoms of these wilts are very similar, so it is near impossible to accurately determine which pathogen is present based on symptoms alone. Because of this, it is extremely important to send stem samples from diseased plants to a pathologist for confirmation of the pathogen. To distinguish between *Fusarium oxysporum* and *Verticillium dahliae*, isolation of the fungus is required followed by microscopy to examine the spores present. Further testing is conducted using molecular techniques and Vegetative Compatibility Group (VCG) analysis to confirm.



Figure 1. Fusarium leaf - Fusarium wilt symptoms on leaf- Leaf yellowing begins at the margin and spreads between the main veins, yellowing turns to necrosis as the plant dies (top left); Verticillium wilt symptoms on leaf – leaf mottle with yellowing between the veins, followed by death of leaf tissue starting at the leaf edge (top right); Fusarium wilt symptoms in stem – The vascular tissue of affected plants exhibits a brown/chocolate discoloration through the entire main stem, continuous browning rather than flecking (bottom left); Verticillium wilt symptoms in stem – brown discoloration in the woody tissue appearing as peppery-looking spots in stem cuts (bottom right).



Short monophialide and 'false head' indicative of *Fusarium oxysporum*



Verticillate arrangement of phialides on the conidiophore is indicative of *Verticillium dahliae*

Why is it important to have pathogen confirmation?

Firstly, there are some differences between the management strategies used for *Fusarium* and *Verticillium* wilt. For example, it is recommended that varieties with the highest disease ranking, as indicated by their F. and V. ranks, be chosen. Unfortunately, varieties with high F. rank have low V. rank for disease resistance. If you plant a high F ranked variety in a field with *Verticillium* wilt, you will potentially increase the inoculum load of Vd in the soil because you planted a susceptible variety. Another recommendation that differs is management of crop residues. Crop residues are an important source of pathogen inoculum. Where *Fov* is present, disease incidence can be reduced when cotton residues have been pulled and mulched and retained on the surface compared with immediate incorporation soon after mulching. For Vd, immediate incorporation soon after mulching is recommended. For cereal residues, these should be baled or incorporated into the soil as soon as possible after harvest to minimise the saprophytic build-up of the pathogen.

Secondly, confirmation of one wilt pathogen in a given season in a field, does not mean that the symptoms observed in the whole field are caused by the one pathogen, or that in subsequent seasons, there won't have been an introduction at some time of a different pathogen. Some fields have both wilt pathogens present, making it challenging to select the most suitable variety. In a mixed field it is important to have a good understanding of which pathogen is dominant, to be able to make the best varietal choice.

Thank you to Dr Linda Smith, Principal Plant Pathologist, Department of Agriculture and Fisheries

Water & Nutrition

Optimising Irrigation & Nitrogen Researchers Tour, "Mundine" Boggabilla

Following the success of CottonInfo researcher tours over recent years, the 2018 event aimed to bring together researchers, industry, advisors and growers; with the objective of raising awareness of industry funded research programs, and promoting the latest best practice management. Tour themes covered topical industry-wide issues, including the influence of irrigation management on N loss pathways, crop defoliation and yield; benchmarking water productivity; and maximising irrigation system performance - all with an emphasis on what growers can do to optimise both water and N productivity.

I was so pleased with the role up on the day with approximately 55 attending, and many staying on for a quick farm tour and delicious BBQ lunch provided by CGS. Many thanks to Brett Corish and the team at "Mundine" who not

only supported the research, but hosted the day. Brett Corish and consultant Jim O'Connor spoke so well on the day and we received some really positive feedback.

Some of the feedback we received was:

Q: What did you like most about this field day?

- To learn about impacts of irrigation vs fertility
- Discussion around irrigation systems, pro/cons in costing of systems
- Good info explained simply
- Good info
- Early start, good range of comprehensive speakers
- Good range of speakers

Q: Are there other irrigation and nitrogen areas that you would like to learn more about, or that you think requires further research? What are they, and why do you believe they are important?

- Variable Rate application P K
- Soil testing, value and cost ROI - small cost for large returns - quantify the baseline. Correlations of N following a dry fallow/ground prep & N fert recovery? More losses btwn pre-plant applic and planting in wetter fallows vs irrigations 1 & 2 water and N losses in dry fallows??
- Additional fertigation applications for non N fert & trace elements, soluble nutrient mixes and app timing i.e. late K applications. Alternative systems for better fert app is spray/drip (less loss, Same N trial to include spray/drip bottom timing

You can find the tour booklet [here](#)

Weeds

I recently had Eric Koetz NSW DPI CottonInfo Technical lead, Weeds, travel the St George and Goondiwindi areas going onto farm to collect weed seed samples to test for herbicide resistance. This was also a great opportunity for Eric and I to discuss the issues and possible solutions with growers and agronomists in the area. The biggest issues

were Feathertop Rhodes grass and Barnyard grass which were mostly found on farm in patches. These patches were either on the edge of fields, on fence lines, tail drains or channels.

It's not too late though, if you have any weeds that you are concerned about please let me know and we can still grab some seed samples and send them off to Eric.

Check out the case studies in the attached document to find out what people just like you are doing to address herbicide resistance on their farm. You may even see someone you know featured!! As a hint, they are hosting a field day this Wednesday!!!

You can find a copy of the weeds case study [here](#)



Feathertop Rhodes grass on a fence line

Pests

Silverleaf Whitefly

Well done everyone on your recent efforts in managing Silverleaf Whitefly!!! We all worked towards a coordinated approach to applying Admiral during an agreed window and I think we have seen some improved communication and some really positive outcomes.

Some responses from consultants at the end of the Admiral window were:

1. When was your first Admiral spray?

20th January. First application 28th Jan and last on 12th Feb. I have not sprayed for whitefly in the East and do not think I will have to. Have treated all blocks west of town between the 1st and the 15th Feb

2. Do you expect to have to spray again?

A few early sprayed fields have required a Pegasus to knock down some resurgence but not all. Some more may require this as we get closer to defoliation. We have a couple of later blocks due to hail that will miss out on the window. Don't expect to retreat. Early treated blocks have settled down well, later treated blocks still have reasonably high numbers of adults as expected, but should settle down with time. I don't think anything we have east of town will require treatment, so at this stage I suspect we will not be applying any further treatments for whitefly.

3. What are Silverleaf Whitefly numbers doing?

Lot of them have cleaned up pretty well and haven't resurged. Not many fields on the eastern end of the valley were treated and they're still at low numbers. I'm happy where window is don't think need to push back for late or replant

crops – need to cover the majority and as AWM tool it's better to get on earlier than later. Timing next year could be different due to planting dates.

Dates for your Diary

- Wednesday 14 March Boggabilla - MacIntyre Valley Field Day
- Thursday, March 15th - Tulloona Conservation Farming Group field day, next Beefwood farms.
- Wednesday, March 21st - Ag Tech18 field day, Mungindi.
- Tuesday 27th March - Monsanto Grower of the year field day, Cavaso Farming Ringwood, Kidman Way, Darlington Point. Registrations free but must be made via <http://bit.ly/2nWJfZk> for a seat on the bus and lunch

What Can I do!!

- Make sure you come along to the Mac Valley Field Day at "Fairfield" this Wednesday 13 March
- MacIntyre Valley Annual Crop Competition 2017/18 - The Macintyre Valley Cotton Growers Association (MVCGA) in conjunction with the Macintyre Valley Field Day Committee (MVFDC) invites growers to enter this year's cotton crop competition. This year with a new water efficiency crop award there will be four categories awarded at the annual awards night, scheduled for the 24th August 2018. These categories include: Irrigated Crop of the Year Award, Dryland Crop of the Year Award, Water Efficiency Crop Award, and Farm of the Year Award.
- Why not "Soil Your Undies"!!! Let me know if you would like to get involved.
- Support your local CGA! Have you paid your membership?
- Register for myBMP!!

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