the cotton wrap

October 2020

SEASON UPDATE

After a few dry years cotton will be back and planted in all four of my growing regions this year, Bourke, Walgett, the Lower Namoi, and Upper Namoi.

CottonInfo with be running "Cotton Catch-ups" again this year in all valleys. Most of the CCU groups have indicated a desire to focus on IPM and silverleaf whitefly, but these regular interactions give us the platform to tackle any other issues or topics that come up throughout our areas.

The Cotton Wrap will be distributed monthly, throughout the season. The CCU's will be occurring monthly and give us a chance to catch up in a casual setting to discuss all things to do with our crops and where we are heading in terms of decisions. A "Crop Check" will be conducted every fortnight and participation from all is encouraged. This Crop Check will be bi-fortnightly



Figure 1 - Cotton emerging at Bourke 12.10.20

encompassed into the participation from the CCU. Therefore, each newsletter will contain a Crop Check as a result of the CCU. Alternately on the other fortnight a text message/email/phone call will come from myself asking for participation in the next Crop Check which will be distributed by email. Clear as mud?











SATACROP - https://satacrop.com.au/

A Reminder to make sure your crops get listed on the SataCrop website! The map is looking quite bare now, so as planting continues it is imperative that we start filling it in. It is so important this map gets completed so ALL susceptible crops, not only cotton, are marked out easily for spray applicators and

growers to see.

If you need assistance please contact myself, Alec Macintosh from Cotton Australia or Ben Boughton from PCT. Again to gain access to the SataCrop website for editing purposes, you will need to email Ben Boughton at PCT-agcloud on ben@pct-agcloud.com



FUSCOM

Each year, cotton's pathologists get together with plant breeders, growers, and consultants to share information and coordinate efforts on disease control. This year, thanks to the challenges of COVID-19, the planned face-to-face FUSCOM forum has been replaced by an online event, with the pathologists recording short presentations of their research.

There is a virtual playlist located on the CottonInfo YouTube channel https://www.youtube.com/playlist?list=PLQy8KAPn-DyowbpN32MZJXje6oz2gKWy3

The full list with direct URLs is as follows:

Using DNA diagnostics to monitor for disease suppressive cotton farming systems Jenny Brooks – Crown Analytical Services CRDC Project CAS2101 https://youtu.be/AuQEUr9ApHo

Southern cotton crop protection

Alison Young – NSW DPI CRDC Project DAN1903 https://youtu.be/QW1JLI5jKm8

Characteristics of disease suppressive cotton farming systems and soils understood

Linda Smith – CRDC Project DAQ2002 https://youtu.be/ fzp90ouozg

ARC Research hub for sustainable crop protection

Professor Neena Mitter – CRDC Project UQ2001 https://youtu.be/HD2avfd3zYo

Biological-based products for improved cotton production

Bruna D. Batista – Western Sydney University CRDC Project UWS1901 https://youtu.be/iVNXECrjrGc











Transformation of Verticillium dahlia, casual agent of Verticillium wilt of cotton, with the GFP gene

Aphrika Gregson - NSW DPI CRDC Project DAN1809

https://youtu.be/2TX1eh Sqts

Butterfly pea's role in Verticillium dahlia management

Karen Kirkby - NSW DPI & Innovate Ag

https://youtu.be/NIG83RXQC-0

Evaluating efficacy of a range of management practices to control Alternaria and black root rot

Duy Le – NSW DPI CRDC Project DAN2101 (previous project was Innovative solutions to cotton disease – CRDC Project DAN1703)

https://youtu.be/UTKqCJQKEwE

Priming of cotton defence against fusarium wilt and reniform nematodes using silicon

Dinesh Kafle, Linda Smith, Linda Scheikowski – ABARES Award ABA1901

https://youtu.be/UffHHexhW3c

Ready to use soil test to manage black root rot risk

Dr Maria Manjarrez – Microbiology Laboratories Australia CRDC Project MLAB1901 https://youtu.be/M8TxgA3-LFA

CSD cotton management tour disease survey update (Qld)

Linda Smith – QDAF as part of DAQ2002

https://youtu.be/MAfxdDIKm8E

CSD cotton management tour disease scoring update

Bob Ford – Cotton Seed Distributors

https://youtu.be/uK0tpblfeQY

Biosecurity Reporting

Leonie Martin – NSW DPI Plant Biosecurity Officer

https://youtu.be/rQ7SMnks Ow

For more information, contact CRDC R&D Manager <u>Elle Storrier</u>, or CottonInfo Regional Extension Officer <u>Elsie Hudson</u>.

PLANT HEALTH TOP TIPS

Cornerstones of integrated disease management

Diseases can reduce yield, increase the cost of production and influence how growers and consultants manage their properties, with farming practices having a significant effect on the spread and severity of diseases present.

Effective integrated disease management (IDM) involves using a range of control strategies to assist with managing disease concerns and the risk of disease affecting field and farm productivity. Whilst











some may believe that IDM is important when you have a disease problem, IDM practices should be implemented regardless of whether a disease problem is evident.

Integrated disease management should be all year round, with disease control strategies able to be implemented at planting, in crop, post-harvest and as part of day-to-day activities.

We spoke with cotton pathologist Dr Linda Smith from Queensland Department of Agriculture and Fisheries (pictured) to get her thoughts on what practices she believes should be the cornerstone of every IDM strategy.

1. Proper identification

"Proper identification of what is causing the disease is important so that you can choose the appropriate combination of disease management tactics. For example, Fusarium and Verticillium wilts can look very similar, but choice of variety will differ if planting a high V-rank or high F-rank whilst the management of residues also differs for the pathogens due to their difference in saprophytic ability as well as suitable crop rotations."

A free diagnostic service is available to cotton growers and consultants. Please contact your state pathologist before sending in samples.

QLD DAF: Dr Linda Smith 0457 547 617

NSW DPI: Dr Duy Le 0439 941 542 or Dr Karen Kirkby 0428 944 500

2. Understand the pathogen's lifecycle

"An understanding of the pathogen's lifecycle and the conditions that are conducive to each disease will help you to anticipate when your crop is most at risk of disease development so you can follow up more intensely to monitor for disease and implement management as necessary."

The Cotton Pest Management Guide highlights endemic cotton diseases and the conditions favoured by different pathogens.

3. Keep records of your farm and field activities

"I think it is really important to monitor your activities and keep good records of what you have done and the results of those actions. Records should be used to assess whether you are choosing the best options. This allows you to continually improve your management strategy."

For more information on IDM:

View the Cotton Pest Management Guide

Read the **Cotton Symptoms Guide**

Visit the myBMP IPM – insect, weeds disease module

This blog is part of a yearlong program from CottonInfo, with the themes aligned with the 2020 CottonInfo cotton calendar and the UN's International Year of Plant Health. For more information, view the calendar, or contact the CottonInfo Technical Lead for Biosecurity, Sharna Holman.













The FastStart cotton program provides practical information on key management steps to achieve an optimum plant stand, further is the **FastStart Cotton Establishment Awards**. Easy to enter and has a ripper of a travel prize on offer, check out what you need to know at http://faststartcotton.com.au/faststart-awards/

QR CODE ON SEED BAGS

This season a QR code is located on seed bags – this can be read with a phone camera or QR code scanner, assuming there is internet access. This should return a Statement of Seed Analysis. In the absence of the QR code reader the Auslot number can be entered into the CSD website to obtain this seed information.

PLANTING GREEN LIGHT

With planters starting to move it is a timely reminder to ensure that you have a green light for planting https://www.csd.net.au/green-light-for-planting, ideally ensure that field soil temperature at 10 cm depth is above 14°C at 8am (AEST) and that forecast average temps for the week following are on a rising plane. The soil temperature network provides a handy 7-day, Day Degree outlook calculation that helps with this outlook — ideally 80 Day Degree accumulation in the 7 days post seed imbibition is considered ideal. The outlook for this week has certainly improved on that of last week.

THE BIODIVERSITY PROJECT

A new partnership between iconic Australian brands Country Road and Landcare Australia is set to improve biodiversity on cotton farms, with support from CRDC, Cotton Australia and CottonInfo.

Funded by a corporate contribution and funds raised via the sale of its famous <u>Verified Australian Cotton Heritage</u> <u>Sweats</u>, Country Road will contribute a minimum \$600,000 to the partnership over three years, with funds raised going to Landcare Australia to support biodiversity restoration projects.

The partnership draws on CRDC-supported work that

mapped biodiversity in Australian cotton landscapes, identified threatened and endangered species and recommended ways to protect them - which you can find on our CottonInfo website. This was achieved with support from the Australian Government's National Landcare Program Smart Farming Partnership Initiative Round 1.

The initial project will be implemented by the Kahl family in the Namoi Valley, NSW. Third generation cotton farmers, the Kahl family will participate in the program by revegetating a river system that













flows through their property and excluding stock to increase habitat and shelter for native animals, reduce erosion and improve water quality.

Other growers will be engaged in future rounds of funding, and all growers and those in the industry can actively help by purchasing a Country Road Verified Australian Cotton Heritage Sweat online.

CottonInfo NRM Technical Lead, and CRDC R&D Manager, Stacey Vogel:

"We're also adding to the launch project in other ways. This includes a five-hectare research trial by UNE to investigate which revegetation methods have the greatest survival rates on floodplain soils as well as the initial biodiversity mapping work which helps identify target areas for biodiversity enhancement works.

"Cotton industry research shows that while there have been some great steps forward, more needs to be done to protect and improve biodiversity on cotton farms and adjacent landscapes. We hope this partnership with Landcare Australia and Country Road will help focus industry efforts, accelerate our biodiversity work and provide a lasting legacy for our growers, our communities and the natural environment."

For more:

- Learn about the partnership between Country Road and Landcare here.
- Learn about the first project, involving the Kahl family, <u>here</u>.
- Contribute to this work through the purchase of a Country Road Verified Australian Cotton Heritage Sweat <u>here</u>.
- Visit our CottonInfo 'Managing biodiversity in cotton landscapes' guides **here**.

Please see link to full video here.

DATES FOR THE DIARY

Cotton Pest Management Course

4 – 5th November for Workshop 1 – Narrabri ACRI January Week 2 for Workshop 2

Cheers,

Elsie Hudson

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