



**Information** when you need it



# the gwydir grower

25 February 2020

## Crop Check - Moree

### **CROP STAGE –**

- 23 - 28 Nodes, cutting out, most have already cutout, plenty of shedding, pix applications.

### **INSECTS/BENEFICIALS -**

- SLW generally low numbers, starting to build in some fields.
- Nymphs present and parasitism evident.
- Mirids present, but low numbers
- Apple dimpling bug – few to moderate
- Mites in some fields, but very low numbers
- Beneficials present in good numbers

### **DISEASE -**

- Fusarium and Verticillium present with the cool, wet weather.
- Boll rot starting to show
- Little bit of alternaria

### **GENERAL COMMENTS -**

- Have been using Canopy Temperature Sensors, which clearly shows the crop getting stressed even though it has access to water on days with high humidity.

### **What the consultants are saying:**

*"Crops slowly approaching cutout but definitely lingering around 4-5 NAWF due to earlier fruit loss. May require late pix. It's getting late and crops 2-3 weeks later than where they should be".*

*"Shedding has been very high in some fields especially where irrigation was followed by significant rain".*

*"Significant shedding event from overcast weather and some waterlogging".*

*"Has been lots of shedding, now a very uneven crop, with some plants with regrowth and others not)"*

*"Hayati (SLW parasite) present, SLW very low".*

*"SLW starting to build again, admiral applied a month ago"*

*"Thrips have kept away mites"*

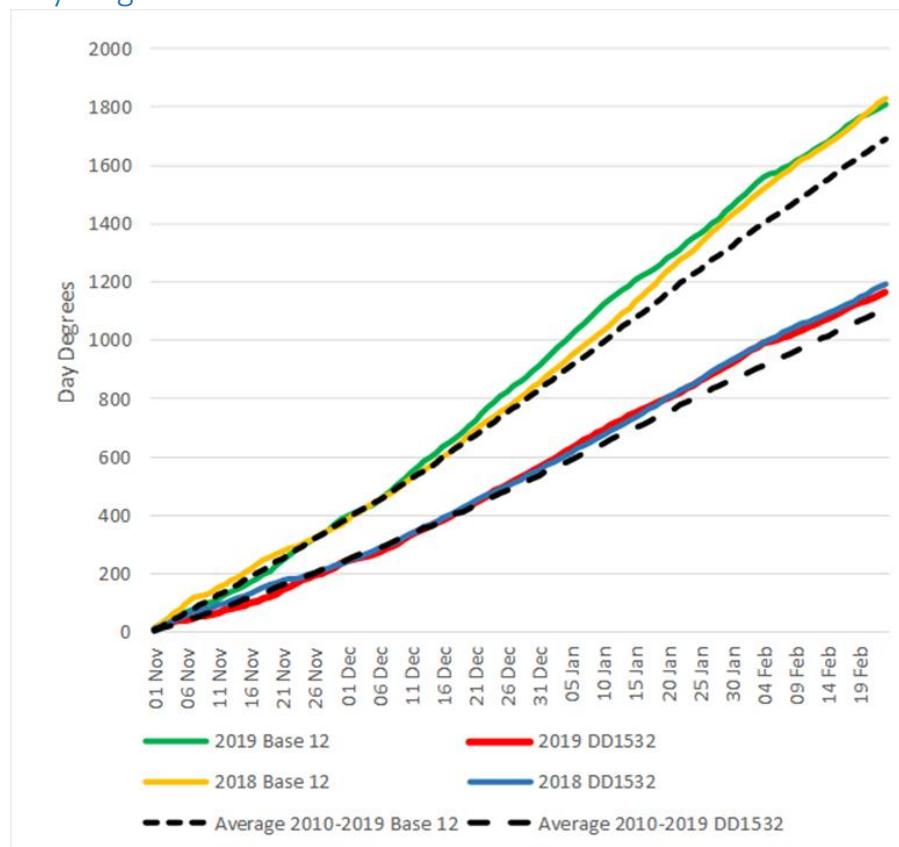
*"SLW all been sprayed with Admiral now, a few nymphs, odd mites (very light numbers), cotton strainers, plenty of beneficials"*

*"SLW reasonable quiet with parasites definitely on the increase. No admiral application to date. Some mirids about"*

*"Mirids increasing, will spray, few SLW, beneficials remain high".*

*"Fusarium present with the cool, wet weather, will impact yield, odd plant with Vert, but not too bad"*

## Day Degrees 1<sup>st</sup> Nov 2019 – 23<sup>rd</sup> Feb 2020



**Figure 1: Accumulated Day Degrees 2019 DD 1532, 2018 DD 1532 & 10-year average (2010-2019) DD 1532 compared to Base12**

Source: <https://www.csd.net.au/ddc>

**Table 1: Day Degrees seasonal comparison 1/11/19 – 23/02/2020**

	2019	2018	2017	2016	2010	10 year mean 2010-2019
Base 12	1810.6	1826.5	1711.7	1856.9	1687.5	1810.6
DD1532	1164.4	1190.8	1101.7	1176.5	1106.4	1164.4
Cold shock days	5	2	3	8	2.9	5
Days above 36°C	59	55	48	59	37.7	59
Nights above 25°C	21	11	9	21	8.8	21
Days above 40°C	14	12	11	21	8.4	14
Average temperature (°C)	27.7	27.9	26.8	28.1	26.7	27.7

Source: <https://www.csd.net.au/ddc>

## 2019/20 Gwydir Cotton Crop Competition

I know it's a tough year with not a lot of cotton, but "the show must go on!" Please support the 19/20 Cotton Crop Competition, with entries due Friday 6th March, and judging to commence shortly afterwards. The winners will be announced at the Gwydir CGA award and charity dinner, an important date on our local calendar. The support shown at this event for our local community is

fantastic and it's our chance to show case our great industry and the importance of cotton in our region. Looking forward to receiving entries from across the farms growing cotton this year. Entry forms attached. For further information Janelle Montgomery M. 0428 640 990.

## Biosecurity top tips – February. Cotton Catchups

CottonInfo is holding "Cotton Catchups" (previously known as area wide management meetings) to provide an opportunity for growers and agronomists to gain a better understanding of IPM issues. While insect management was the original instigator of area wide management meetings, it is only just one part of the discussion these days. Sharna Holman, CottonInfo's technical lead for biosecurity, spoke to Janelle Montgomery and Amanda Thomas, CottonInfo's regional extension officers in the Gwydir and Macquarie to find out more about the cotton catch-ups organised or supported by CottonInfo across the industry. Read the entire CottonInfo Blog [here](#).

## Herbicide Resistance Testing

Bayer's free herbicide resistance testing program is available to all growers who have grown Roundup Ready Flex® cotton in any of the prior 3 seasons. Growers can test key weeds present in cotton systems for resistance to program herbicides.

Bayer have pre-printed testing envelopes that can be used for weed seed collection. Please contact Tom Luff E. [tom.luff@bayer.com](mailto:tom.luff@bayer.com).

Samples will be sent to Plant Science Consulting, who will do the testing and provide results directly to the grower.

Further information <http://www.roundupreadyplus.com.au/>

## SOS Gwydir – Beers & Bangers: CLAIMING THE DATE

SOS (Stop-Off-Target Spray) will be holding on-farm meetings to discuss spray practices on the **30<sup>th</sup> & 31<sup>st</sup> March 2020**. Opportunity to hear the latest spray practice information and time for discussion with other farmers and agronomists. Enjoy a BBQ and a beer or breakfast (Breakfast meeting at Gurley). Further information to come. Any questions contact Janelle Montgomery M. 0428 640 990 or E. [sosgwydirvalley@gmail.com](mailto:sosgwydirvalley@gmail.com)

The overarching goal of SOS Gwydir Valley is to ensure spraying takes place in the correct weather conditions and with compliant spray quality from any platform (hydraulic boom, PWM, optical etc) to get the best job possible in the field sprayed and stop off target spray drift.

### Five commandments according to SOS



# Observe label directions for minimum and maximum droplet size. Water rates may need to be modified with increased droplet sizes

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stakeholders working together and coordinating their efforts. Thus my research focus moved from

management of the pest animals to managing the managers. I completed a PhD through UNE and funded by the Invasive Animal CRC in 2017 on “Using Behavioural Science to Improve the Management of Invasive Animals: A Domestic Cat Case study”. I accepted a Post-doctoral position at UNE, applying the knowledge gained to not only other pest mammal species, but also in other fields such as weed management, and spray application (this CRDC project).

**How did you end up in Cotton Research:** A chance meeting and conversation between a colleague and CRDC personnel at a conference.

**What excites you about working in the Cotton Industry?** The Australian cotton industry is innovative in their uptake and research support of cutting edge technologies that optimise efficiency and management practices.

**What is your current research project?**

Understanding motivational factors for improved spray application on farms, funded by CRDC

The project aims to increase sustainable participation in best practice (BP) spray application techniques through the application of behavioural science and targeted engagement. The research will identify:

- (i) the main drivers and barriers to engagement in BP spray application,
- (ii) the different audience segments across the sector, and
- (iii) the main leverage points for initiating and sustaining behaviour change.

**How will they benefit the grower?**

The information gained by the research will be used to develop more tailored and targeted engagement approaches for the different audience segments that are not currently conducting BP spray application, thus reducing the incidents of spray drift across the landscape, and thereby reducing the negative impacts that are often felt by individual growers.

**How will it benefit the industry?**

The off-target movement of sprays continues to be a significant factor that impacts agricultural production at numerous scales. The cotton industry is both a recipient of and a contributor to this off-target movement. A reduction in the incidents of spray drift will not only improve production in the sector, but also benefit the industry’s image in the eyes of the broader community.

**What are your key findings?**

Using interviews of key industry stakeholders, and an online grower survey we identified ***seven behaviours that, if adopted, would produce the greatest reduction in spray drift:***

***Before spraying:***



1. Using online mapping tools to register crop locations

2. Checking online sources for sensitive areas

3. Discussing spray plans with neighbours.

***During spraying:***

4. Driving at recommended speed

5. Spraying when conditions (Delta-T, low risk of surface inversion, wind speed) were suitable.

***After spraying:***

6. Decontaminating spray equipment appropriately

7. Keeping accurate records.

***Why stakeholders are not engaged in best practice spray behaviours:***

Before spraying (Not registering or checking online mapping tools):

- Not being aware of the mapping tools (capability)
- Not having the time to check the online sources (opportunity)
- Not knowing anyone else who used the mapping tool (motivation).

Before spraying (Not discussing spray plans with neighbours):

- Bad relationships between neighbours (capability and motivation)
- Growers saw no need to discuss plans (motivation).

During spraying (Not driving at recommended speed):

- Not enough time when conditions are suitable (opportunity)
- Not aware of the link between speed and spray drift (capability)
- Need to complete job (motivation)
- Field conditions (opportunity)
- Perception of reduced efficiency at slower speeds (motivation).

During spraying (Not spraying when conditions were suitable):

- No flexibility with the contractors /staff resulting in spraying when somebody was available to do so regardless of conditions (opportunity)
- Beliefs that their crop production took precedence, getting the job completed was the priority and spray drift was not an important issue (motivation)
- Perception that everyone cuts corners and sprays in less than ideal conditions so it was acceptable for them to do so as well (motivation)
- Knowledge about when conditions were suitable to spray (capability)
- Perception that no-one would know anyway if they did spray in less than ideal conditions (motivation).

After spraying (decontaminating spray equipment):

- Awareness of the need to decontaminate (capability)
- Having the time to perform decontamination (opportunity)
- Having a suitable location to decontaminate (opportunity)
- Perceiving decontamination as important (motivation).

After spraying (keeping accurate records):

- Awareness of the need to keep records (capability)
- Forgetfulness (capability)
- Perception that no-one was going to check anyway (motivation)
- Not knowing anyone else who kept records (motivation).

The next step is to use this information to provide recommendations on techniques that would be most suitable to remove or circumvent these barriers to achieve maximum on-ground impact.

### **What do you like to do when you aren't researching?**

I'm a mad keen dragon boat enthusiast, a strange sport to enjoy when you are inland, in the middle of a bad drought. Needless to say I spend much of my spare time travelling to where there is enough water to accommodate several 12 metre-long boats, each with 22 people as mad as I am!

**Thanks Lynette. For more information Lynette McLeod E. [lmcleod7@une.edu.au](mailto:lmcleod7@une.edu.au) P. 02 6773 3489**

### **Dates for the diary**

- **Thursday 5<sup>th</sup> March GRDC Grains Research Update, Mungindi**
  - <https://grdc.com.au/events/list/submitted/grdc-grains-research-update-mungindi>



Mungindi Hall, Wirrah Street, Mungindi NSW 2406

New research that's ready for the paddock in 2020 at the Mungindi GRDC Grains Research Update. Discuss how to make practical use of the latest information with researchers, agronomists and leading growers.

Topics:

- **Climate change, production risk and frost.** Steven Crimp (ANU)
- **Maintaining wheat yield and quality under high temperatures** - status and prospects for improvement. How do current cultivars compare with what's coming? Richard Trethowan (University of Sydney)
- **Sowing grain sorghum early** - reducing risk of water and heat stress at flowering and increasing chances of double cropping to chickpeas or of ratooning irrigated sorghum into a second harvest. Local trials at Mungindi. Loretta Serafin (NSW DPI)
- **Upgrading nutritional strategies to feed the farming system** - P & K placement, impact & economics over time. When should you start to worry about deep P reserves in soils that have not been cropped for as long? Impact of P and K on N placement. Mike Bell (UQ)
- **Deep P application** - a grower experience. Tom Woods (Woods Pastoral)
- **Nutrition discussion session** led by Mike Bell (UQ), Tom Woods (Woods Pastoral) and Bede O'Mara (Incitec Pivot)
- **New technologies for the Australian grains industry** - observations from a four month Fulbright Fellowship study tour of the USA and Germany. Craig Baillie (USQ)
- **Modifying variety and sowing date with frost risk and slope** - how big are the potential gains and why? Matt Gardner (AMPS Research)
- **Cover crops for fallow efficiency** - soil water, health, nutrition and crop performance. Andrew Erbacher (DAF Qld)
- **Dealing with the drought and planning for recovery** - Discussion led by Sam Heagney (South Bunarba Agriculture) and Tom Greentree (ATD Farming)

Registration: 8:30am for a 9am start. Finish 3pm. Cost: \$30 pp. (Cheques payable to ICAN Pty. Ltd.). Lunch, morning tea and proceedings provided.

To RSVP / register, or for further information or agenda, please contact John Cameron or Erica McKay on 02 9482 4930 or e-mail [erica@icanrural.com.au](mailto:erica@icanrural.com.au) or register on line at <http://www.icanrural.com.au>

(Agenda subject to change)

- **Friday 6<sup>th</sup> March Bayer Roundup Ready® Xtend Crop System Demonstration Day**
  - Time: 8:30am
  - Place: [Locharba Research Station, Narrabri NSW](#)
  - Viewing the following trials, concluding with lunch provided:
    - Weed efficacy in fallow
    - Glufosinate application in different timings, water rates and nozzles
    - Glufosinate mixed with Group A herbicides
    - Drift simulation
    - Tank mixing
    - Weed efficacy in OTT cotton
    - Crop safety demonstration
    - Impacts on pigeon pea refuge crops and native vegetation
  - Please RSVP [here](#) for catering purposes.
- **Wednesday 11<sup>th</sup> March, Darling Downs, Cotton Grower of the Year Field Day**
  - 'Cullingral' 1785 Fairymeadow Road, Miles, QLD
  - Breakfast at 7.30am AEST, field day starts 8.15am AEST

- For catering, RSVP – Mary O’Brien ([maryo@cotton.org.au](mailto:maryo@cotton.org.au) , 0427 358 806) or Annabel Twine ([annabel.twine@cottoninfo.net.au](mailto:annabel.twine@cottoninfo.net.au), 0447 176 007)

- **Thursday 12<sup>th</sup> March – Gwydir CGA Field Day**



- Place: Caroale & Red Mill
- Time: Buses depart Moree Racecourse at 9:30am sharp
- CSD variety trials, XtendFlex, a machine vision app for insect management, canopy temperature sensors, CSIRO breeding team.
- RSVP [secretary@gwydircotton.com.au](mailto:secretary@gwydircotton.com.au), Lou Gall M. 0427 521 498

- **Wednesday 25<sup>th</sup> March 2020, Bayer Cotton Grower of the Year Field Day**

- Place: 'Fairfield' Boggabilla - hosted by Tom and Charm Arnott
- Time: Buses depart "Fairfield" Silos promptly at 7:30am
- RSVP 18<sup>th</sup> March Cameron Derbidge M. 0407 299 056
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**WEDNESDAY 25<sup>TH</sup> MARCH**

*our field day hosts are*  
TOM & CHARM ARNOTT OF  
"FAIRFIELD"  
BOGGABILLA

**BUSES DEPARTING  
"FAIRFIELD" SILOS  
PROMPTLY @ 7:30AM QLD**

**ON FARM...**  
Breakfast will be available. proudly sponsored by Nufarm - Shot 2 U coffee van on site. proudly sponsored by Syngenta

Topics include:

- ◆ CSD update and Pix trial
- ◆ Precision Seeding Solutions
- ◆ Syngenta FastStart program update
- ◆ Agworld – Collaborative farm management
- ◆ Goanna Ag – Integrated sensor monitoring on farm
- ◆ Bayer – Roundup Ready® Xtend crop system update
- ◆ Defoliation – What's changed, what's stayed the same
- ◆ Adama – Automated pest network, powered by Trapview
- ◆ PCT – Using Precision Ag to understand constraints to production

**Charity Raffle**  
Tickets available for purchase on the day.  
Funds raised will be donated to the  
Goondiwindi High School Bursary

**\$5 BBQ Lunch**  
Funds raised are donated to the  
Goondiwindi Junior Rugby Club

**GUEST SPEAKER  
TO FOLLOW**

CONTACT CAMERON DERBIDGE 0407 299 056  
TO RSVP BY THE 18<sup>TH</sup> MARCH OR FOR MORE INFORMATION.  
RECEIVE ONE FREE TICKET IN THE RAFFLE WHEN YOU  
RSVP. RAFFLE PRIZE VALUED @ \$500

- **30 & 31<sup>st</sup> March 2020, SOS Gwydir Beers & Bangers**

- Spray practice get together
- Places: TBC

- **Wednesday 1<sup>st</sup> April 2020, AgTeCH20 Demo Day and StartUp Alley, Mungindi, NSW**

**Janelle Montgomery**

Regional Extension Officer | Gwydir, Mungindi | CottonInfo

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