CottonInfo **Information** *when you need it*

the Mungindi grower

11th November 2021

FLOOD WATCH

What can I say, so disappointing for our winter harvest, but everyone is in the same boat (pardon the pun). Ozforecast provide a summary of the latest rainfall around Mungindi: https://ozforecast.com.au/cgi-bin/weather.cgi?location=Mungindi.NSW&pagetype=rainfall

Location/Distance (km)		Last Update (UTC+11:00)	>9am	Rain (mm) To 9am	7-Day
Local Stations					
Mungindi	-	09:00	-	5.0	88.0
Mungindi Gin (Boomi Rd)	5.7 ENE	09:15	0	5.9	64.1
Mascot Tm	21 NNE	09:00	-	6.0	61.0
Fenton Tm	25 W	09:00	-	3.0	73.0
Bullawarrie (Mungindi)	29 NW	10:00	0.2	0.2	7.2
Whalan (Weemelah)	31 E	2021-11-10 14:15	0	-	-
Crinolyn	32 SSE	10:00	0 ?	22.2 ?	69.8 ?
Balarang West (Weemelah)	32 E	10:00	0.2	1.4	27.2
Westerly Stations					
Wynella	84 W	10:00	1.4	1.4	34.0
Northerly Stations					
CSD Field Site Near Worral Creek	44 NE	10:00	0.8	0.8	35.2
CSD Field Site Near Jericho (South Talwood)	51 NE	10:00	5.6	5.6	49.4
Jericho Tm	51 NE	09:00	-	6.0	63.0
Nindigully Tm	65 NNW	09:00	-	1.0	40.0
DAF Talwood	86 NE	10:00	1.2	1.2	39.2
Easterly Stations					
CSD Field Site Near AFF Koramba (Boomi)	60 NE	10:00	0	0.6	70.0
Cockatoo	66 ESE	10:00	1.8	2.8	62.8
The Gully	69 SE	10:00	0	3.4	90.8
CSD Field Site Near Cudgildool (Moree)	70 SE	10:00	0	1.6	35.6
Noblew/Wirega (Garah)	76 ESE	09:45	0	4.8	44.5
Boomi Offtake (Boomi River)	76 ENE	Yesterday 16:15	0.5	-	79.0
Kinimo/Braemar	77 E	10:00	0	3.6	97.8
CSD Field Site Near Morcott (Moree)	79 SE	10:00	0	1.6	14.4
Currawee (Ashley)	85 ESE	10:00	0	1.8	59.0
Southerly Stations					
Collarenebri	74 SSW	09:00	-	3.0	18.9
Myralga (Merrywinebone)	79 S	10:00	0	9.6	29.2
Avondale Feedlot	81 SSW	10:00	0	0.6	9.2
Merrywinebone	81 SSW	10:00	0 ?	5.2 ?	21.5 ?
Heathfield (Mallawa)	86 SSE	10:00	0	9.2	22.2
Reno (Mallawa)	91 SE	10:00	0	2.2	28.2
Eton Vale (Rowena)	92 S	10:00	0	0.2	1.6

Weather station observations courtesy Bureau of Meteorology , Namoi Cotton Limited , DNRME , Department of Agriculture, Fisheries and Forestry , Coleman Agriculture Pty Ltd , Balarang Lands , Cotton Seed Distributors , Auscott Limited , Orlando Farms , Robert Harris Industries , Avondale Ag , WaterNSW , R&B Farming , Heathfield Pastoral Company , Kinimo/Braemar & AMPS Research , Will Winston-Smith , Pechelba Farming , Geoff Dunlop, Mike Montgomery and Curra Farming

Just in preparation for the next few days, I've listed some organisations/websites you may like to follow to keep in the loop with expected water levels:

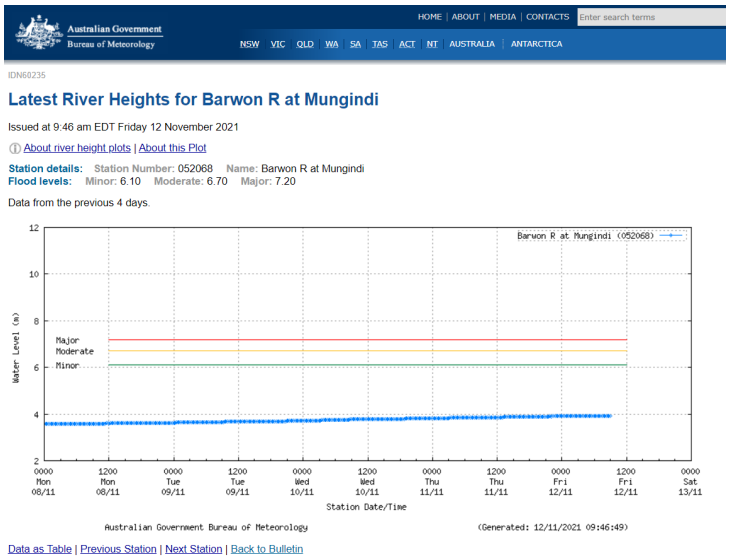
Latest River Heights for the NSW North West on the BOM:

http://www.bom.gov.au/cgi-bin/wrap_fwo.pl?IDN60145.html.

They provide a summary of latest heights:

Station Name	Time/Day	Height	Tendency	Flood Class	Recent Data
Lower Macintyre River					
Macintyre R at Boggabilla	9.15am Fri	3.39	rising	below minor	Plot | Table
Macintyre R at Goondiwindi	8.00am Fri	3.58	rising	below minor	Plot | Table
Macintyre R at Goondiwindi Weir	8.25am Fri	3.34	rising		Plot | Table
Macintyre R at Terrewah	9.00am Fri	4.08	rising	below minor	Plot | Table
Boomi R at Boomi Offtake	8.00am Fri	0.20	steady		Plot | Table
Macintyre R at Boomi Weir	9.00am Fri	1.02	steady		Plot | Table
Macintyre R at Kanowna	9.00am Fri	3.01	steady		Plot | Table
Weir R at Giddi Giddi South	7.40am Fri	2.55	rising		Plot | Table
Weir R at Surrey	8.42am Fri	0.85	falling	below minor	Plot | Table
Weir R at Talwood	8.00am Fri	0.75	steady	below minor	Plot | Table
Gil Gil Ck at Boolataroo	9.00am Fri	0.92	steady		Plot | Table
Gil Gil Ck at Galloway	9.00am Fri	0.88	steady		Plot | Table
Gil Gil Ck at Weemelah	9.00am Fri	0.45	steady		Plot | Table
Barwon R at Mungindi	9.00am Fri	3.91	steady	below minor	Plot | Table
Barwon River					
Barwon R at Mungindi	9.00am Fri	3.91	steady	below minor	Plot | Table
Barwon R at Presbury Weir	9.00am Fri	1.86	steady		Plot | Table
Barwon R at Mogil Mogil	9.00am Fri	2.42	steady	below minor	Plot | Table
Barwon R at Collarenebri	9.00am Fri	2.05	steady	below minor	Plot | Table
Barwon R at Tara (U/S Namoi Jct)	9.00am Fri	3.02	steady		Plot | Table
Barwon R at Walgett	9.00am Fri	3.47	steady	below minor	Plot | Table
Barwon R at Boorooma	9.00am Fri	4.49	steady		Plot | Table
Barwon R at Brewarrina	9.00am Fri	2.60	steady	below minor	Plot | Table

If you look at the plot it provides a great graph showing where the height is in comparison to minor, moderate and major flooding.



For real-time river heights and volumes: https://realtimedata.waternsw.com.au/

You can 'favourite' the key sites you want to follow and quickly get the latest information to check how quickly a site is rising and if its getting anywhere near previous flood heights.

Crop Check

Crop Stage

Most of the irrigated cotton crop was planted between 5th – 30th October. The earlier crops were sown on rain moisture, but as the month progressed and temperatures warmed up the decision to plant into or above moisture and taking the gamble of forecast rain was more difficult, crops planted after the 20th October were watered up. The rain sown crop needed a 'flush' by end October. To date I have heard of very little replant, apart from the odd field which missed the forecast rain and establishment ended up patchy.

A reasonable area of dryland is also in the ground now probably not much more to go in.

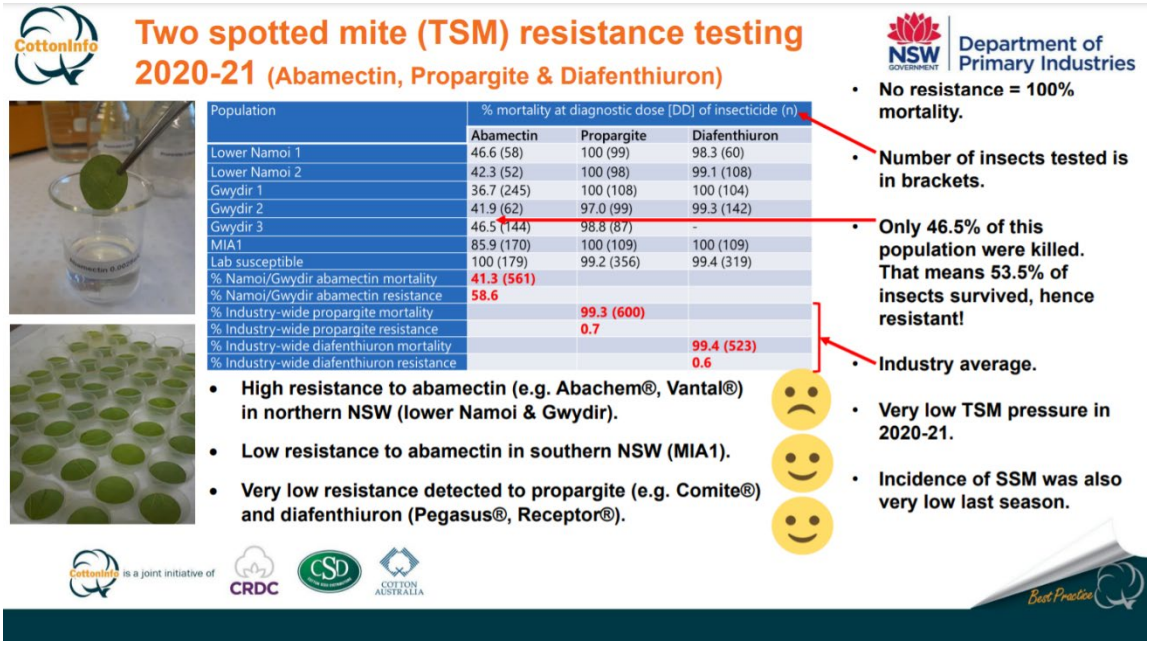
All in all, the 2021/22 Mungindi cotton crop is slowly getting away after a slow start with the cooler weather and rainfall.

INSECTS/BENEFICIALS

Everyone is wondering what this season will bring us in terms of pest pressure. With such a wet, green winter both pests and beneficials have probably had opportunity to sustain their populations. In the Moree district we have seen aphids in canola, heli's in chickpeas and mites in fababeans.

- Fleabeetles caused some damage to cotyledons, exacerbated with the cold start.
- Thrip numbers are generally low.
- Thrips have been active in the Moree district – Check out the lastest CottonInfo e-news Thrip damage – when should I be worried.
- No reports of mites in the Mungindi district.
- Aphids and mites were in the Faba beans crops around Moree and I have had reports of mites (2-spotted) moving into young cotton. Thrips are also active in Moree and as you know thrips eat mite eggs. I sampled some leaves in one field and thrips out numbered mites 10-1.

Abamectin has been used on some young cotton in the Moree region. Its important to remember that in the **Gwydir Valley mites have a high resistance to Abamectin** as shown here.



That figure comes from the NSW DPI 2020-21 Insecticide resistance testing results for 2 spotted mite (TSM) Source: https://www.cottoninfo.com.au/blog/resistance-monitoring-202021-season

On average 58.6% of the tested populations in the Gwydir survived, hence resistant to Abamectin. If you have used this product for mite control, subsequent monitoring will be important. The IRMS (Insect Resistance Management Strategy 2021/22) states no more than 2 applications in a season.

Generally, mites are controlled by beneficial insects such as thrips, big-eyed bugs, lady beetles, damsel bugs, so early season chemical choice is important.

For a full wrap of the Cotton Industries 2020/21 Insecticide Resistance Monitoring check out this factsheet: Resistance Monitoring 2020/21 season

If you want the details it's provided in powerpoint presentations provided by Dr Lisa Bird, NSW DPI and Dr Jamie Hopkinson, QDAF available on the CottonInfo website:

Resistance surveillance in major insect pests of cotton

Insecticide resistance monitoring in Silverleaf whitefly (SLW)

Below are some comments from CCA survey on lessons from 20/21 season (soon to be published). They might provide some reassurance for early season pest management decisions.

1. A reminder that with the right season and water being available the cotton plant has an amazing ability to compensate for early fruit loss. *2. Nothing beats a kind weather season for high yields!*
Less concerned about early season retention. Should probably be using more Pix and less insecticide.
Inspired by how well cotton can recover and yield very high after very low fruit retention at 1st flower.
Sometimes a lack of retention early can play in your favour. In the spring of 2020 we were seeing fruit retentions of around 60% heading into first flower. Despite this when it started raining over New Year the plant didn't shed a great deal of fruit it kept it then started packing on bolls leading to favourable yields of 15+ bales/ha.

WEEDS

Seeing the usual suspects in irrigated fields - barn yard grass, milkthistle, peachvine, pigweed and bladder ketmia. Dryland fields also seeing some feather top rhodes grass, windmill grass and liverseed grass.

I finally have the 2020 Gwydir Weed Resistance testing back! The delay was unavoidable due to a key lab technician being unwell and off work for an extended time. The good news is they are well and back to work and got straight onto our samples. The

CottonInfo Weeds Technical Lead, Eric Koetz sent me the results last week. Reports will go out to all those that sent in samples in the next few days.

14 samples were collected from Mungindi district farms, 10 BYG samples, with only 1 sample with glyphosate resistance detected. 4 Milk Thistle samples with no resistance to Glyphosate detected. No Group A herbicide resistance was detected.

A total of 76 seed samples were collected right across the Gwydir valley including Milkthistle, Barnyard Grass, Feather Top Rhodes Grass and Windmill Grass. The results are provided in the table below.

Weed	No. Samples	Resistant		Susceptible		Not Viable
		Glyphosate	Group A	Glyphosate	Group A	
Milk Thistle	25	2	0	21	25	2
BYG	32	7	0	25	32	0
FTRG	16	2	0	7	16	7
Windmill Grass	2	2	0	0	2	0
Peach Vine	1	0	0	1	1	0
TOTAL	76	13	0	54	76	9

Resistance is real, with almost 20% of samples showing resistance to Glyphosate (applied at 1.4L/ha of 570g-ai.)
The good news that no resistance was detected in any of the 76 weed samples for Group A Haloxyfob (100ml/ha of 520g-ai) and Clethodim (250ml/ha of 240g-ai).

A good result for milkthistle in 2020 with all samples controlled by glyphosate at 1.4L/ha of 570g ai, only 2 of the 25 samples had resistance.
All of the Milk thistles samples we received from the Gwydir in 2019, all were susceptible to glyphosate applied at 360g ai/ha and 24-D at 1050 ai/ha.

Eric Koetz and Graham Charles, NSW DPI are continuing to test weed seed for herbicide resistance as part of their CRDC project DAN2004: Improved management of weeds in cotton and grains farming systems. Please send in your samples or get in contact with me and I can grab some samples for you. You want a good ½ -1 cup of seed.

Disease
Disease surveys will begin in the Mungindi district next week. We started around Moree and got in 8 fields before the rain. Generally, disease incidence was relatively low, Rhizoctonia present, but plants growing through, Black Root Rot was present but at low levels. Alternaria was scarce. The only concern before this rain was the fact we found fusarium in 4 of the 8 fields. They were known Fusarium fields, but we haven't always seen it show up this early.

It was spotted by seeing the odd dead or dieing plant across the fields, and on closer inspection the chlorosis on the leaves was present. When you split the stem you can see the brown discolouration inside.

The disease surveys are carried out by Duy Le, Cotton Pathologist, NSWDPI and CottonInfo.

Unfortunately, the weather conditions we are currently facing are conducive to disease. If you need anything sampled for identification, please give me a call and we can arrange sampling.

What have the researchers been up to in the Gwydir

Anhydrous Ammonia Inhibitor Trial

The Cotton Growers Association in collaboration with AFF, B&W Rural and CottonInfo have a trial looking at an Anhydrous Ammonia Nitrification Inhibitor. We know, depending on the conditions (soil temperature, moisture levels and depth of application), more than 50% of pre plant N can be lost. The anhydrous inhibitor, slows nitrification, that is, it slows down the conversion of ammonium to nitrate (the mobile form) therefore potentially reducing nitrogen losses, for the first 3 months after application. Ideally, we want to apply N when the plant demands it, but our farming systems and logistics don't allow this. So, if we have to put on N early, perhaps this technology will help reduce our early season N losses.

Anhydrous Ammonia was applied on the 10th September. Soil cores were taken before application and will be taken again as soon as I can get on the field (3 months since application). Thanks to Ed Seccombe, AFF Telleraga for hosting this trial.

I'm also collecting the tailwaters for N analysis. 1st Irrigation 30th October 2021.

Seed Treatment Trial

Amy Clark, Field Biologist with Syngenta, based in Gunnedah is running a seed treatment trial in the Gwydir. A wide mix of treatments for disease and insect protection. Amy has been doing germination and establishments counts at various times over the last 4 weeks.

Irrigation Optimisation Trial in St George

This season, CottonInfo, in conjunction with local cotton growers Craig Saunders and Lucas Wuersching, researchers from USQ, GL Irrigation, Gwydir Valley Irrigators Association, NSW DPI and Padman Stops are conducting an evaluation of a bankless irrigation system. This project has been implemented with assistance from the CRDC and the host growers.

The project will evaluate the application efficiency, the distribution uniformity and the requirement efficiency of a tail water backup, bankless irrigation system. The data captured will enable calculation of key water related indices for comparison against industry benchmarks.

The resultant system performance and water productivity details will enable growers to better evaluate the system and its suitability to their circumstances. It will also provide the grower with detailed information on how the system might be managed to achieve certain outcomes.

Bug Checker Training Workshop

I have been trying to organise a bugchecking workshop in the Gwydir. COVID dependent, I will aim to get one up in the last week of November. This will be presented by Sandra Williams and Tanya Smith from CSIRO, Narrabri.

Please let me know if you have checkers keen to attend.

Cotton 101

Can you tell the difference between a vegetative and a fruiting branch? This short video shows what to look for:
[Distinguishing between vegetative and fruiting branches in young crops - YouTube]

CottonInfo on Facebook

The CottonInfo team is now on Facebook. You can search for us by typing "CottonInfo", "@CottonInfoAust" or click on the above icon. We look forward to sharing photos and videos from our trials and activity through Facebook, similar to the information we already share though Twitter (@CottonInfoAust).

Introducing CottonInfo Communications Manager

Welcome Emma Lambeth

- **CottonInfo's new CottonInfo Regional Extension Officer, Namoi, Walgett & Bourke**

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Regards

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