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

Macquarie bale up

OCTOBER 2021

SEASON SUMMARY 2020-21

The start of the season was a much higher production year than the 2019-20 season. We had a general security allocation and after several years of drought it was great to have water in the dam. The planting area for the Macquarie was estimated at 19,000 ha. Establishment in most areas was adequate with mean seedling stands between 10-14.5 plants/m. Wireworm caused some issues due to a wet winter period though the area reportedly replanted was small.

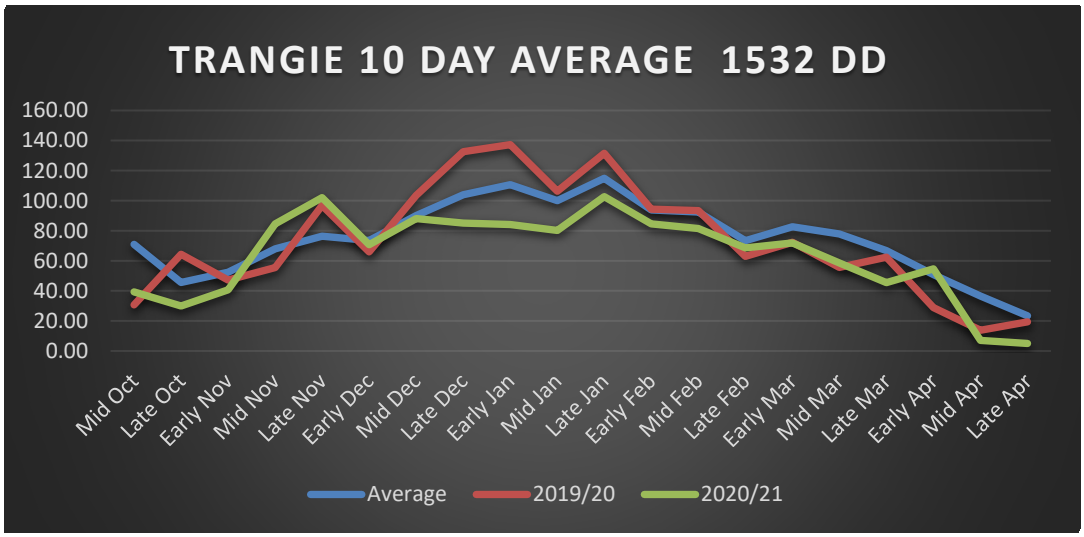


Fig 1: 10 Day degree accumulation (Planting date 15th Oct). Source: cottassist.com.au *created by Amanda Thomas*

Climatically when we look at the season in 1532 Day Degrees (DD) (this takes out the DD that are accumulated in extreme heat or cooler conditions as the plant tends to shut down and not use those units). It was overall below average for the region, although November was much warmer and above the average.

The data above is based on the Trangie research station weather station as it's in the middle of the valley. There were five days above 40˚c which is very low compared to the 10-year average of 11. There were 41 cold shock days (<11°c), and rainfall was varied; it was on average wetter than any of the last five seasons. Unfortunately, the highest

rainfall was in February with an average of over 100mm for the month. Trangie had an average of 492mm in the growing season, which is well above the last 10-year average. The micronaire period was at 93.7% of the 10-year average, it had a mean temp of 22.5°c and the average over the last 10 years was 23.5°c.

PICKING AND GINNING 2020-21

By May about three quarters of the region had been picked however some later crops were still yet to be picked and getting exposed to regular rain events. Results were once again varied; overall there was a mean yield of around 12.9 bales/ha, however ranging from 12.5 to 17.5bales/ha at the northern end of the valley, from 11 to 15 bales/ha though the mid-valley and from 10.5 to 13.5 bales/ha at the cooler end of the valley. Colour grade was around 21 to 31 with leaf at 2-3 in most cases. Both staple and micronaire were good with base grade prevalent for the earlier crops.

A later than usual finish to the crop made it hard to get an early start to ginning. Concerns of a wet pick was looming, but we escaped it for the most part. There were a few crops that were picked a little earlier due to looming rain events, and generally quality withstood. We will not forget the mice plague, with baiting very regularly around fields and gin sites to try and get a handle on rapidly growing numbers. We did see a lot of mice come through in and on modules to the gin yard. Both alive and dead – not pretty to put through the gin.

Quality

Most gins reported that they didn't see anything unexpected come through. For those fields that were rushed through they did see a heavier leaf come through but otherwise we saw base grade an above. It was great to see good quality crops being grown in the Macquarie and Upper Lachlan that yielded extremely well. In the lower Lachlan, there were reports of some low micronaire come through which is frightening against a P&D sheet. However, it was an exceptional year for some growers and yields came through as high as 16.5 – 17.5 bales per hectare; largely results from crops grown Northwest of Warren that were planted early and had plenty of day degrees.

Picking was very reflective in classing results – later / wet pick incurred low micronaire and colour discounts for some. A comment from one of the gins was regarding wet cotton; were some crops picked with moisture too high? Given the rain looming at the end of the season this may have been a trade-off.

Turnouts were certainly a mixed bag and very much field and area dependant. It was fair range right across all the gins. In some cases, they were lower than we have seen the past and in other cases they were higher – the crops that finished earlier tended to have higher turnout percentages. Ginning was a drawn-out affair this year largely due to the weather later in the season. Queensland Cotton (Olam) started operations the first week of May and wrapped up the first week of September after operating only on day shift. Jacinta Condon reported that "our biggest limiting factor for the season was skilled staff available, due to the pandemic and competing ag sectors we did not have the pool of casual labour that has been available in the past".

"We hope that doesn't restrict production for the 2022 ginning season". Thanks to Jacinta Condon of Queensland Cotton (OLAM) and Anna Dawson Auscott for the ginning reports.

THE SEASON AHEAD

The outlook is looking good for the 2021/22, 2022/23 production years in terms of available irrigation water, but the long-term seasonal outlook is leaning toward wetter times, which can slow crop development. The planting window so far has been much cooler than average, and we are well below our 10-year mean and rainfall has been higher than average. Establishment is taking longer than we have seen in the past and there have been some tough decisions around moisture planting and irrigations made more difficult by varied rainfall events. Its estimated there will be around 39,000 ha in the Macquarie this season and good potential for the following season. Burrendong dam is sitting at 98.8%.

ESTABLISHMENT

Establishment has been adequate in some areas and not in others. Rain around the planting window has made for tough decisions and lower than average temps have slowed establishment and, in some cases, led to replanted areas. Disease has been present in crops due to the lower temps that have prolonged establishment.

	2021	2020	2019	2018	2017	10 year mean
Base 12	201.0	261.8 ▲	297.8 ▲	270.6 ▲	265.7 ▲	262.9 ▲
DD1532*	51.1	124.4 ▲	160.9 ▲	150.2 ▲	140.1 ▲	121.4 ▲
Cold shock days (≤ 11°C)	22	13 ▼	10 ▼	6 ▼	7 ▼	14.2 ▼
Days above 36°C	0	0	2 ▲	0	0	1.1 ▲
Nights above 25°C	0	0	0	0	0	0.0
Days above 40°C	0	0	0	0	0	0.0
Total rainfall (mm)	32.8	28.8 ▼	2.2 ▼	59.0 ▲	90.0 ▲	30.5 ▼
Total radiation (MJ/m²)	615.0	604.7 ▼	677.1 ▲	611.7 ▼	644.4 ▲	604.9 ▼
Average temperature (°C)	16.6	19.6 ▲	21.0 ▲	20.5 ▲	20.1 ▲	19.4 ▲

* Experimental calculation.

For the latest info head to csd.net.au. Become a member, as there is soil temps, day degree data as well as new experimental weather summary calculator.

NEW DAY DEGREE CALCULATOR

The CSD website has a new tool to calculate day degrees available to all members. The New DD1532 calculator will:

- Provide a "temperature speedometer" that you can use for crop management.
- Prevent excessive day degree accumulation above 32 degrees, particularly in hot periods that is unlikely to contribute to plant growth and development.
- Remove the need to adjust day degree targets for cold shocks.

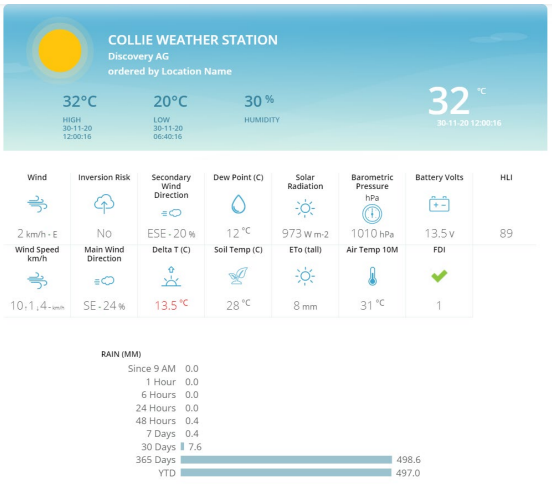
CSD collaborated with CSIRO in developing the DD1532 method, through contributing data to validate the equations across the industry. We envisage enhanced functionality and development of this tool and encourage feedback from industry. Simply become a member and then go to https://www.csd.net.au/ddc

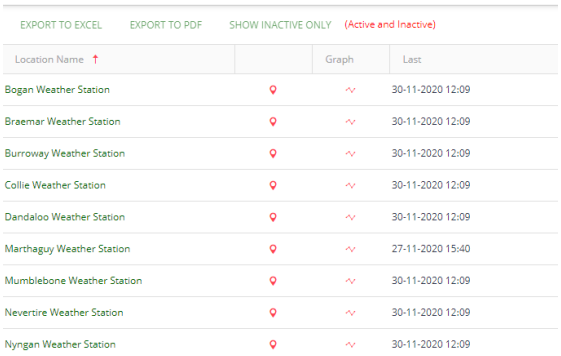
REMINDER – PLEASE MARK YOUR SENSITIVE CROPS ON SATACROP

Please make sure your crops get listed on the SataCrop website! It is so important this map gets completed so ALL susceptible crops are marked out easily for spray applicators and farmers to see.

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 A short video to show you how to use Satacrop and add your fields is available at: SataCrop Video- How to add a field.

With summer spraying starting around the region including fallow and winter crop desiccation sprays, it's a timely reminder to be vigilant when spraying this season. Traditionally the post-harvest pre-Christmas rainfall events have been problematic for cotton growers and off target drift events have occurred with large scale fallow sprays happening. There has been a lot of work go into reducing this occurrence in the Macquarie valley. The Macquarie cotton growers and Goanna Ag have put up 8 weather stations with inversion towers that have a yes or no visual alert for inversions.





EXPORT TO EXCEL EXPORT TO PDF SHOW INACTIVE ONLY (Active and Inactive)

Location Name		Graph	Last
Bogan Weather Station			30-11-2020 12:09
Braemar Weather Station			30-11-2020 12:09
Burroway Weather Station			30-11-2020 12:09
Collie Weather Station			30-11-2020 12:09
Dandaloo Weather Station			30-11-2020 12:09
Marthaguy Weather Station			27-11-2020 15:40
Mumblebone Weather Station			30-11-2020 12:09
Nevertire Weather Station			30-11-2020 12:09
Nyngan Weather Station			30-11-2020 12:09

Step 1: Register Go to [Goanna Ag > Products > Weather Stations (goannatelemetry.com.au)]

and click on 'register' in the top right-hand corner. During the registration process, when prompted to enter the person who will give you access to the sites, enter: **Macquarie Cotton Growers Association**. When prompted to enter farms or locations, enter: None. (Goanna Telemetry will automatically grant you access to all nine trial sites).

• Step 2: Access the desktop or mobile app Follow the following steps to access the Goanna Telemetry weather station apps: Desktop: Go to [Go (goannatelemetry.com.au)]. Enter the username and password you created for yourself at registration.

Mobile app: Go to the Apple Store or Google Play. Search for 'Goanna Telemetry' and download the app. Enter the username and password you created for yourself at registration. A training video is available for the app - and click on 'our app'.

We also have another two weather stations sponsored by the MCGA at "Farrendale" and "Mt Foster" please feel free to help your neighbours access these weather stations

[http://porosity.com.au/smm/macquarie/mcga.html] you can open this link on your phone

then click on the square with arrow at the bottom then click on add to home screen (the square with a +) as below. Once you have this on your phone you can send it to your neighbours as text

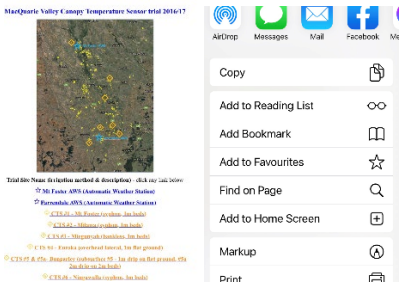


Fig 5: Example of how to save and send the link to weather stations

Please see attached poster regarding spray drift awareness and always refer to SataCrop for location of sensitive crops.

Also, another great tool that was born and raised in the Macquarie valley and now has been rolled out in other valleys is the SOS group. Improving On-Target Pesticide Application | Regional NSW (sos-nsw.com) There really is a lot of tools that can help but we need your help to share with those applicators who need it most.

REOCCURING WILT: BE AWARE!

Have you seen fields with the following symptoms?

- The odd plant or patches of plants that wilted and suddenly died with dead leaves usually remaining on the plant.
- Reoccurring patches of dying plants getting larger over past seasons with no explanation for plant death i.e., seasonal conditions.
- Dying plants can be amongst healthy plants.
- Bronzing of leaves and petioles.
- Reddening of the roots and root decay i.e., if plants are pulled out of the soil, the taproot snaps due to root decay.
- May see reddening of the vascular tissue.
- Stem canker/lesions may be present. Keep an eye out for these symptoms this coming season. If you have concerns or plants expressing symptoms, contact your state pathologist: or your local REO.

This season has been alarming as we have seen plants confirmed with Fusarium (Fov) very early in the season. Growers and consultants are asked to be alert for plants with symptoms of the potentially new disease reoccurring wilt or FoV or verticillium wilt; it's important to diagnose as the management tools are different for each. Reoccurring wilt had previously been discovered in Queensland, and after more diagnostics have been completed in NSW it has become apparent that the soil pathogen has been identified in the Namoi and Gwydir regions. The CottonInfo Fact sheet on Wilt diseases has been updated to provide information on this new disease. It is so important if you are seeing any plants with similar symptoms that you collect these plants and send them into the pathology team for identification. Contact Amanda Thomas if you are unsure of anything and want assistance in doing collections.

Figure 3. Pictures of re occurring wilt for further info go to The CottonInfo Fact sheet on Wilt diseases

When looking for early disease symptoms it's important to dig out the whole root system as it's the secondary and fibrous roots that can help with identification of the pathogen.

WHERE DO I SEND MY DISEASE SAMPLES?

NSW: ***All NSW samples (EXCEPT SUSPECT FUSARIUM) to be sent 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: All QLD samples (including NSW Fusarium samples) to be sent to: Attn: Linda Smith Ecosciences Precinct

QLD DAF GPO Box 267
Brisbane QLD 4001
Large parcel via courier (e.g., TOLL): Basement 3 Loading Dock Joe Baker Street Dutton Park QLD 4102

For enquiries, phone: • Linda Smith: 0457 547 617 or 07 3708 8456 or call your local REO to assist with sampling.

Note: *In NSW, confirmation of the pathogen causing disease in cotton is no longer being outsourced to EMAI laboratories. All samples (except where Fusarium is suspected) are to be sent directly to ACRI with attention to Duy Le in NSW DPI. Where Fusarium is suspected, send to QLD DAF via the address above.*

COTTON NUTRITION MANAGEMENT WEBINAR.

You will have to go a long way to find a presenter that goes around Chris Dowling from Back Paddock. He has extensive experience in cotton nutrition and will be taking us through some of the latest research and recommendations for cotton, and how we should prepare for this season. He will also go over some of the basics including sampling protocols for petioles and leaf blades. There will also be some discussion time at the end, so bring any questions you have about cotton nutrition.

5.30PM AEDT Thursday 4th November

Click here to join.

https://backpaddock.webex.com/backpaddock/j.php?MTID=m541013f5d047588bc0238a47172ba701

PLEASE PASS THIS LINK ONTO ANY COLLEAGUES OR GROWERS. Contact: Back Paddock: 07 3220 2959 Paul Bartter 0448 646514

With the high urea price and a wet season predicted it is important to make the most of your nutrition inputs. Knowing what levels, you have in field by testing leaf blades and petioles will help you make informed nutrition management decisions.

COOL TOOLS

The Bom have sharpened up some of the long-range forecast tools on their website go to long term forecasts

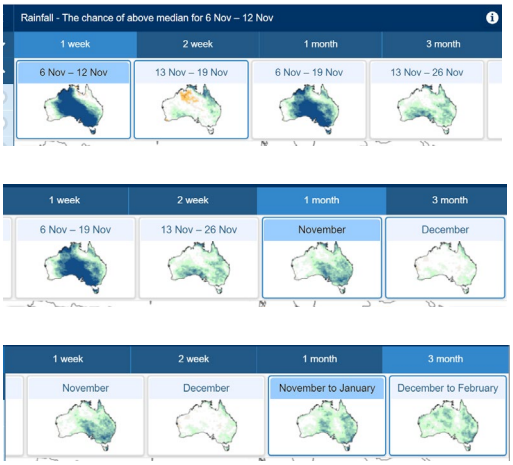


Figure 4: examples of the forecast options (bom.gov.au)

Fig 5: examples of six maps

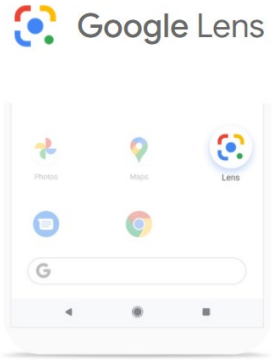
Six maps is a good free mapping program that can help when doing FPH or grant applications. Go to SIX Maps (nsw.gov.au)

Cotton Australia Jobs board. CA now has a great new platform where growers can advertise jobs and get connected with unit students and other job seekers directly click here for simple steps on how to do this.

Google lens – ever wanted to take a pic of something and let the internet find out what it is or find you where to get it Well that's what this does? google lens

Great for unknown parts or when you see a dress you like online.

Just install it into your google app.



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 included please contact John Cameron from ICAN. Mob: 0427 209 709

john@icanrural.com.au

That's for another edition for the Macquarie Bale up – we have a few challenges this season but all in all we have been through a lot worse, and we know the positives far outweigh the negatives. I still have a deep emotional turmoil over what was worse: the dust storms, the mouse plagues, or the lock downs? (Dust storms won as they meant no income. At least the mice meant we had something to protect, and the lock downs were something everyone went through in some way or another).

Cheers
Amanda

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