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

the cotton tale

August 2021

Water availability and good prices to drive large cotton planting

Welcome to the first Cotton tale of the new season.

As we prepare for the start of the 2021-22 cotton season, two key positive factors are lining up - good water availability and strong cotton prices.

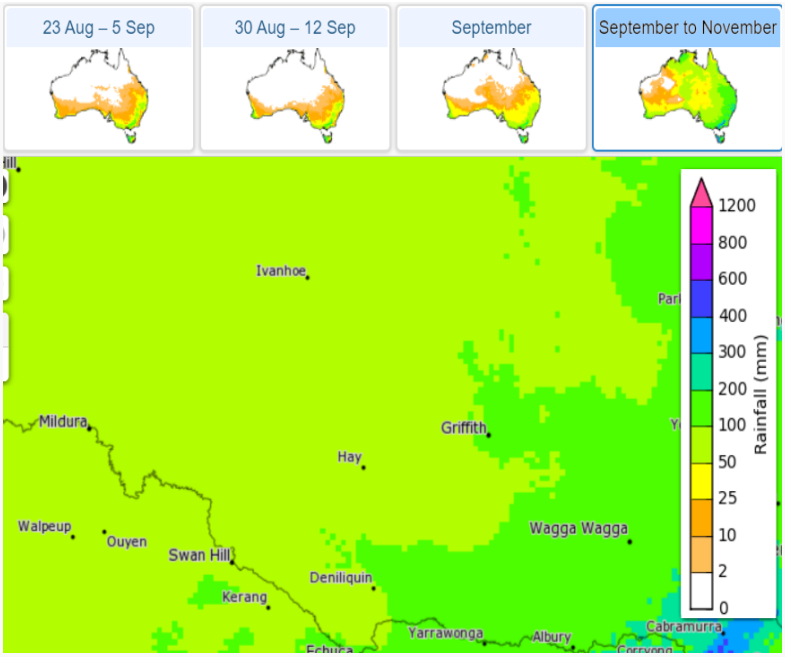
A close eye will be kept on weather conditions in the critical planting window and it will be important to read the season with the help of long range forecasts and adjust management as the season unfolds.

BOM Long range weather forecast

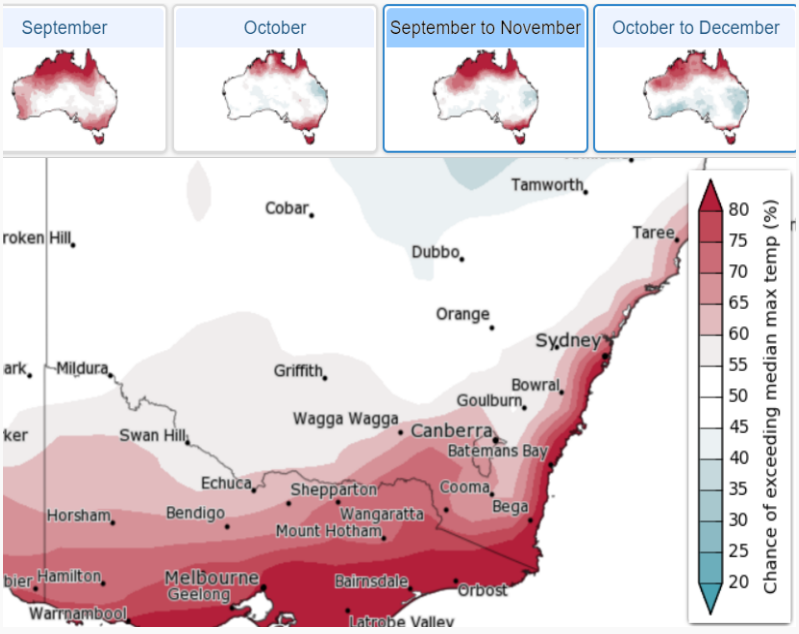
- Spring (September to November) rainfall is likely to be above medium for the eastern two-thirds of Australia.
- Maximum temperatures for spring are likely to be above medium for the northern tropics and far south-east Australia.
- Above medium minimum temperatures for spring are very likely for all of Australia, except southern WA.

"The BoM is forecasting a 70pc chance of above-average rainfall across all cotton-growing regions between now and November, so as long as growers can get their crop in the ground, the outlook is good." **Rabobank senior commodity analyst, Dr Cheryl Kalisch Gordon**

Current estimates for the south are a planting area of 70 -75,000 ha. "The largest area of cotton planted in Australia was 655,000 hectares in 2011 which produced a record 5.5 million bales. The four largest planting years to date have been 2011, plus 2010 and 2016, each 580,000 ha and 1998 at 534,000 ha.



BOM Rainfall outlook September to November



BOM Maximum temperature outlook September to November

FastStart™ Soil temperature network

The green light for planting is when soil temperatures are at least a minimum of 14 degrees at 8am for three days and there is a rising plane of forecast temperatures.

Vigorous crop growth at the start is needed to

- outrun disease
- develop healthy root systems
- have a large and healthy canopy prior to flowering
- avoid unnecessary delays that shorten fruiting cycles and/or achieve earliness

So how early can you plant? There is no advantage in going too early and it can backfire and lead to gappy and poor plant stands if a cold front comes across. Judgement needs to be made using the 7 day temperature forecast.
CSD members have access to an extensive soil temperature network that gives guidance on when you have the green light to water up the crop. In most locations in Southern NSW the most reliable planting window is in the first two weeks of October.
https://www.csd.net.au/membership

IMapPESTS

iMapPESTS is a national RD&E plant pest surveillance initiative that aims to monitor and report the presence of pests and diseases using advanced surveillance and diagnostics

technologies. Mobile surveillance units called 'sentinels' have been designed to sample airborne fungal spores and/or insects, and environmental data which is then reported to industry. I will be trialling the sentinel this season and it will be located at the IREC field station at Whitton. I will visit the unit on Mondays to retrieve the previous weeks' samples and load up new sample pots and vials.

The samples are then analysed by SARDI for pathogens and insects of priority pest targets for the relevant industries. Ideally, we want to be able to get information out to industry to influence pest management decisions. We'd like to capture feedback on what industry are doing with the data and how the flow of the relevant information could be improved. We'd also like to compare results from our airborne traps with crop monitoring reports from the region to assess how well the information we're capturing correlates with those on ground.

Green and brown mirids will be reported for the region for insects from the 6m and 2m insect suction traps, as well as cotton aphid and western flower thrips. Potentially Silverleaf whitefly will be tracked as well. SARDI will also be able to report on the presence of Sclerotinia for pathogens and aim to gather feedback on the capacity of the units to track Alternaria spores. The overall project is being led by Horticulture Innovation, with funding from the Australian Government's Rural R&D for Profit Program, along with 16 partner organisations including CRDC.

Sprayer decontamination

Successful decontamination of a spray boom is vital to ensure herbicide injury does not occur to your crop and to avoid inadvertently reducing spray and equipment efficacy by mixing incompatible products. This process should also be part of a general maintenance program for your boom to ensure that it is working efficiently.
The cleaning process takes time, as there are many steps involved, depending on the chemical application history of the boom. Spray tanks and booms generally need to sit overnight with the cleansing agent to be fully effective. Be prepared to set aside a couple of days to do the job properly.
Decontaminating spray equipment | CottonInfo

Cotton season 2020-21 feedback still needed and open!

Just a reminder that the cotton surveys are still open. You can do the surveys online but if you want to do it over the phone or in person just give me a call and we can arrange a time.

https://www.surveymonkey.com/r/micronaire

https://www.surveymonkey.com/r/cottonC2021

Growing an extra crop to benefit the system

Winter cover crop trial Late April 2020

Currently only a small percentage of cotton growers practice cover cropping due to a range of system constraints, but particularly the value of water. In southern NSW, growing a cover crop in summer is normally not practical due to low summer rainfall and high evaporation. Generally, a winter crop (normally a cereal) is planted after cotton and taken through to harvest, and then there is a 9-month fallow leading into cotton. The main benefit of this break crop is soil structure repair.

In autumn 2020, an on-farm trail was established on a cotton farm at Benerembah to look at the benefit of a winter cereal sown as a cover crop in the same season as the next cotton crop.

From the results of this trial there was no significant difference in cotton yields by including an autumn cover crop in the rotation system. However, there were benefits to the cropping system with reduced herbicide costs, a slight buffering in seedbed temperatures, wind protection and improved soil tilth after pupae busting. Growing an extra crop in the rotation to benefit the system has a lot of merit and can take the form of a green manure crop, a cover crop or a biofumigant crop.

Biofumigant crops

Biofumigant mustard crop being incorporated

The concept of biofumigation involves planting a crop that releases compounds that are toxic to pests of pathogens in the soil. It involves growing and harvesting the biofumigant plant as either a rotation crop or as a sacrificial crop that is sprayed out and incorporated or freshly incorporated into the soil prior to planting cotton. The effectiveness of the green or brown manure biofumigant relies on the bulk of the crop being incorporated at least 4 -6 weeks before planting the cotton crop to allow breakdown of the material so no phytotoxic effects carry over to the following cotton crop.

A number of crop types have been trialled over the years as biofumigant crops for reducing Black root rot. Three seasons of trials on different fields in Northern NSW resulted a 28% to 70% reduction in disease severity from Indian mustard. Although biofumigation does not eradicate the disease from the soil it does reduce disease severity enough to warrant its use.

Guide to Brassica Biofumigant Cover Crops :: September 2020 (publications.qld.gov.au)

Currently growers and advisors will need to follow an integrated disease management approach to minimise Black root rot impacts.

1. Ensure fields are level to manage poor drainage areas.
2.Good bed preparation to optimise stand establishment and seedling vigour.
3. Pre -irrigate if possible, in preference to water up.
4. Delay sowing until later in the planting window to avoid cool temperatures.
5. Practice good farm hygiene.
6. Rotate with non-host crops (cereals, canola) for up to three seasons if possible.
7. Biofumigation crops should be considered in problem fields.
8. Avoid rotation with legumes including pigeon pea.
9. Control weeds in fallows.
10. In high water availability years, flooding of fallow fields for 30 days during summer will help reduce spore loads.

August quiz – What is the full name of this bird?

Regards Kieran