



Information when you need it



the **cotton tale**

23rd January 2020

Crop stage - 20 -24 nodes/75-100 % retention/6 -8 NAWF/Cut out Pix to start early next week

Insects/beneficials - Overall insect numbers low/Mirid numbers have increased in some fields and some sulfoxaflor sprays are going out/ Good beneficial numbers

Weeds - Some pigweed escapes

Disease/Environmental - Some Alternaria spotting since rain. Some light shedding.

General comments - Crop water use has dropped with the rain. Mild temperatures welcome through flowering. More advanced crops now at row closure.



CSD Ambassador Update (January) – Southern

In the last newsletter we introduced you to the new CSD tool STEFF (Simulated Time to Establish First Flower).



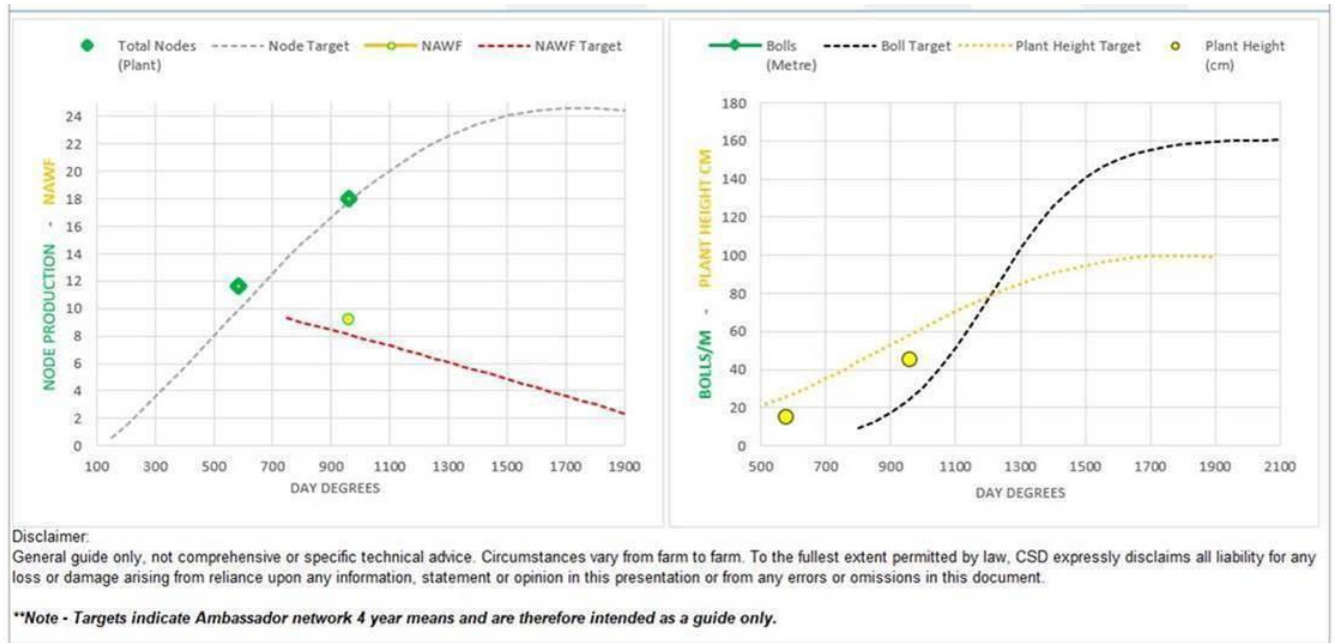
This tool enables us to predict when the crop would reach 1st flower (1/m) based on location and time of watering up. For each of the CSD Ambassador and Variety trial sites in Southern NSW the STEFF tool was within 2-3 days of the crop physically reaching this target.

As we now move through the flowering phase, CSD has another tool that is available, BARRY (Biometric Agronomy for Realising Representative Yield). BARRY has come from looking at relationships and patterns within the CSD Ambassador and Variety trial data sets. Here we are able to see where the crop is compared to other valleys at different growth stages. You can see how you are performing in relation to key crop targets for maximum yield and also see what your projected yield potential is.

Below are the results from this seasons averages across the Ambassador program in Southern NSW. We can see that the crops started off well for node production, then slowed down (tracking above and back onto the line). Plant height was shorter and as we approach 1st flower the crop then started to make up ground. As we move into flowering the crop progress for boll production will be added. For now, we can place this data into BARRY for a yield prediction, giving us an estimated 12 b/ha for the means across this seasons data set so far.

If growers would like to track their crop through BARRY and Cotton Tracka please make contact Jorian Millyard, CSD E&D Manager NSW (Southern NSW E&D Agronomist) M. 0428950009 E. jmillyard@csd.net.au or Ella Steinfort, CSD E&D Agronomist M. 0428950033 E. esteinfort@csd.net.au .

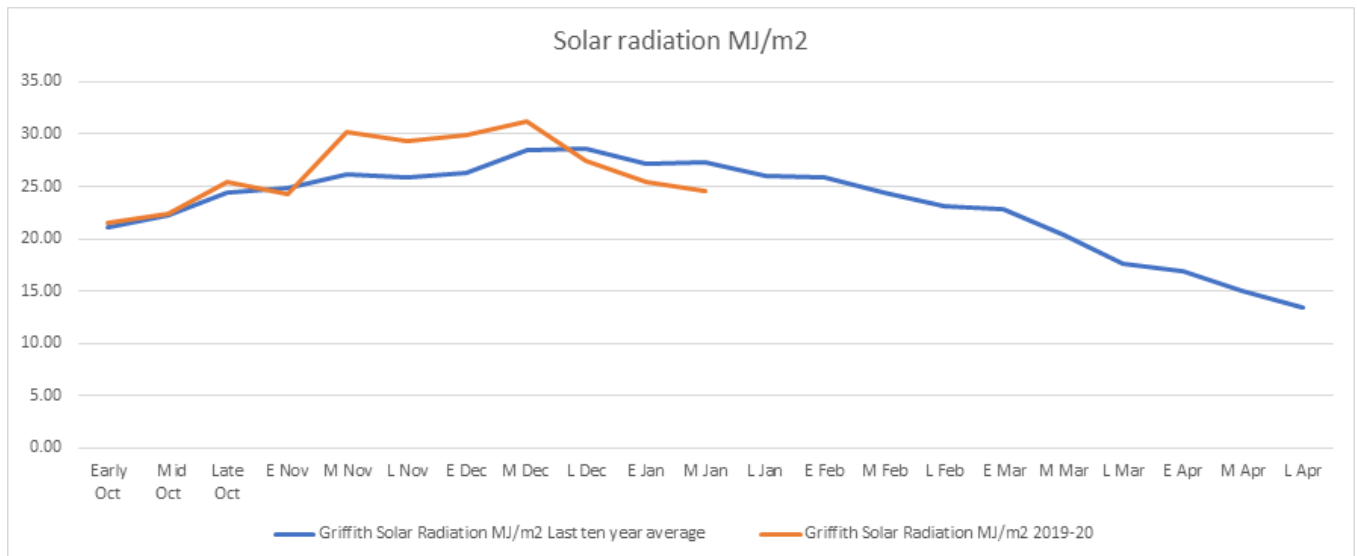
CSD COTTON SEED DISTRIBUTORS		Cotton Tracka				POWERED by COTTON SEED DISTRIBUTORS AMBASSADOR NETWORK				
Farm: Southern NSW	Planting Date: Various									
Field: Various	Seed Imbibed Date: 9/10/2019									
Variety: Scot 746	# Days Flowering 88									
Assessment Date	Day Degree	Total Nodes (Plant)	Total Nodes Target (Plant)	Bolls (Metre)	NAWF	NAWF TARGET	Plant Height (cm)	Plant Height Target	BARRY Yield Prediction	
15/12/2019	582	11.6	9.9				14.4	26.1	n/a	
7/01/2020	961	18	17.8		9.2	8.1	44.9	58.5	12	



Solar Radiation

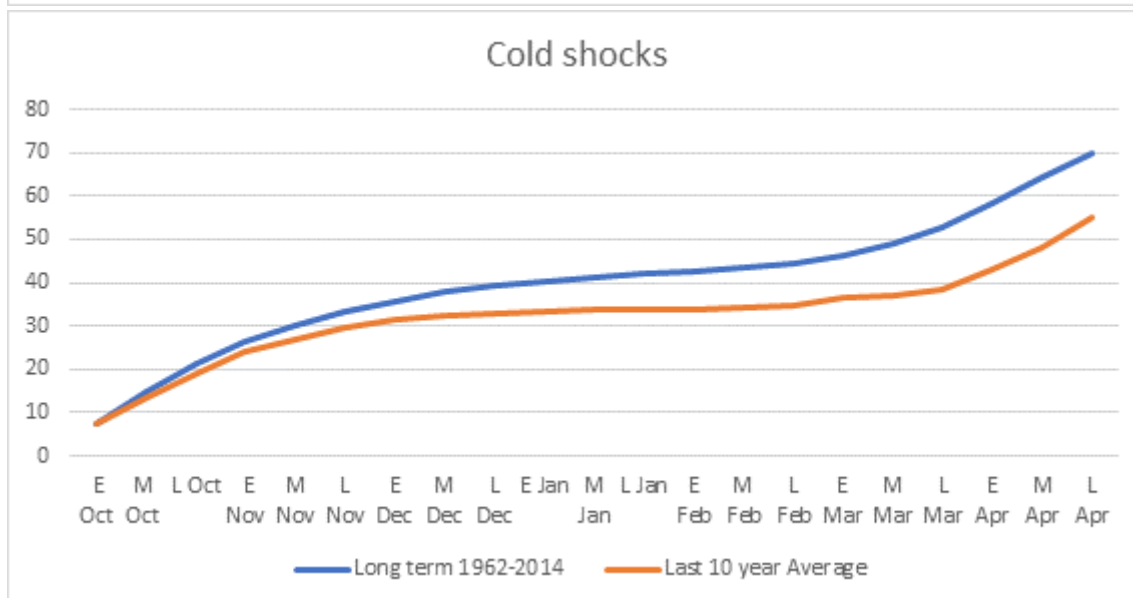
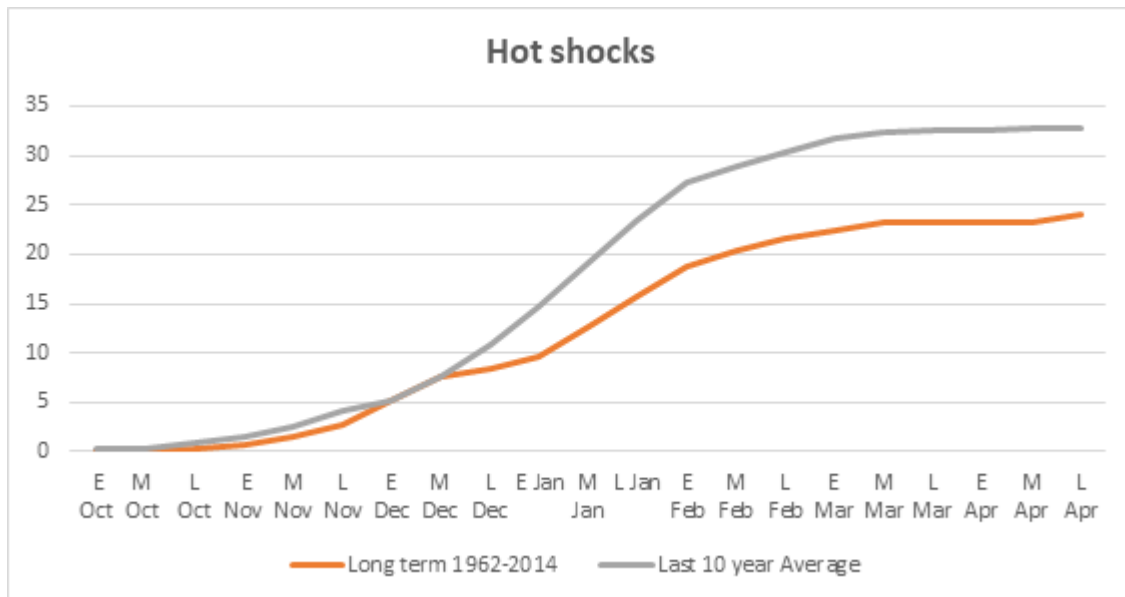
One of the advantages of growing cotton in southern latitudes is the longer summer days and the amount of solar radiation we get. Through January we average around 27 MJ/m² which is well above the minimum the plant requires for efficient energy production. Prolonged cloudy periods are not common during flowering but can be a concern towards the end of flowering when there is a big boll load on the plant. The cotton plant will shed squares and small bolls particularly if radiation is reduced by 20-30% for several days during late flowering and boll fill. The plant is more sensitive to shading at this stage because of the large energy demand placed on the plant from developing bolls which forces it to “rebalance” its internal energy balance in response to a period of lower radiation. The smoke haze we got in some areas during early January did drop solar radiation according to a number of weather stations. However, a drop in radiation due to smoke will not be as large as a weather station would otherwise indicate because the reduction in direct beam radiation from the sun (which the sensor is designed to measure) is partly offset by an increase in diffuse radiation that the sensor on most stations has a poor ability to measure. Diffuse radiation is created when sunlight bounces off smoke particles resulting in a proportion of the intercepted radiation being reflected sideways. Because plant canopies are 3 dimensional compared to a radiation sensor, plants can make use of this diffuse radiation which impart offsets the decrease in direct beam radiation as measured by weather station sensors.

Individual days have been down with storm clouds recently, but we have still averaged 24.5 MJ/m² for the last 10 days.



Ten year averages – a warmer climate for cotton

I recently went back and looked at our climate averages for southern NSW. I have been using long term averages back to 1962. The last ten year averages show a clear trend of getting warmer. There are 14.6 less cold shocks (temperatures below 11 degrees C) in the season and 8.6 more hot shocks (above 36 degrees C). Water use over the season has surprisingly stayed the same at 10.1 MI/ha but with slightly higher use early on balanced by slightly lower use in January. New graphs using the ten year average are included in the attached excel spreadsheet.



Cotton Australia update

Welcome to Kylie Edwards who has recently started as the CA Regional Manager for Southern NSW and Vic.

Cotton Australia is calling for expressions of interest from growers who would like to participate in a myBMP express workshop. The idea is to work through levels 1 and 2 side by side, answer any questions/stumbling blocks growers might have to get you on your way to accreditation. Groups of

4-6 is ideal. Looking to have them in the first week of February, 2020. Please RSVP by January 28th 2020 to Kylie Edwards 0427390393 if you have interest

Satacrop reminder

After months of prolonged dry conditions we have received much needed rain over the past few days, which means spraying activities will need to be undertaken by many croppers.

A few reminders

1. Use Satacrop to map all of your sensitive crops. Ensure neighbours are aware of the location of any sensitive crop plantings and/or sensitive areas.
2. Read and follow spray label instructions and ensure you are up to date with the APVMA label changes to 2,4-D products.
3. Check the conditions before spraying. Do not spray when there is a surface temperature inversion.

<https://crop.satamap.com.au/>

Minimising yield variability project

Title of research project	Minimising yield variability to maximise yield
Key Researcher	Guna Nachimuthu NSW DPI
Research Organisation:	Large multidisciplinary team (see presentation)
CRDC funded: Yes/No, if No who?	Yes
What is the research?	Identify factors that are causing yield variability. This project is aiming to relate all factors (soil constraints/disease/management/rotations)

	48 paired fields across three regions and the use of big data.
How will it benefit the grower?	To develop a framework for growers, consultants and REOs to systematically diagnose the factors and assess their relative significance and contribution to yield variability.
How will it benefit the industry	Aim is to get actual yield closer to potential yield. Output is a decision support flowchart.
Key Findings	Year 1 completed of three year project. (See presentation)

Clear out your sheds 3 steps

1. Gather up any used agvet containers. If they're *drumMUSTER* eligible get them to your nearest collection site for recycling. Remember, your local community groups raise funds through the collection of *drumMUSTER* containers.

2. If you have unused or obsolete agvet chemicals, register these with ChemClear for collection. You will be notified when a collection is happening in your area.

3. If you have any questions please contact your local *drumMUSTER* Regional Consultant Tanya Ginns on 0428 556 924.

<http://www.drummuster.org.au/>

Dates and reminders

- IREC Annual Field day Wednesday 29th January 8.30am – 12 noon See below
- SVCGA Charity Golf Day 20th March 9am -2pm Contact Eliza 0436 008 200
admin@svcga.com.au
- Crop pest Management Guide and Australian Cotton Production Manual Survey

Growers please fill in the survey here:

<https://www.surveymonkey.com/r/growersurveyCPMGandACPM>

Agronomists please fill in the survey here:

<https://www.surveymonkey.com/r/agronomistsurveyCPMGandACPM>

Where is this? How many bottles? Answer next newsletter.

December answer - Binya



Regards Kieran

Disclaimer:

General guide only, not comprehensive or specific technical advice. Circumstances vary from farm to farm. To the fullest extent permitted by law, CSD expressly disclaims all liability for any loss or damage arising from reliance upon any information, statement or opinion in this presentation or from any errors or omissions in this document

