



the **cotton tale**

23rd March 2020

What the agronomists are saying

Crop stage – Range of 8 to 12 Nodes Above Cracked Boll (NACB). Most at 9-10.

Insects/beneficials – Minimal. Low levels of Silverleaf Whitefly and mites.

Weeds – Minimal and very clean.

Disease/Environmental – Some crops now showing signs of senescence. Moderate alternaria.

General comments – Rain at the start of March very welcome. Last irrigations on 20th March. Crops are later than recent seasons. Boll sizes and distribution look like the top 2/3 of canopy will be most important for yield. Most defoliations will start in mid-April

Soil Health Assessment in the Southern Cotton Growing Region.

Dr Wendy Quayle and Dr Jackie Webb from Deakin University, Centre for Regional and Rural Futures (CeRRF), are seeking volunteers to help determine the impact of manure amendments in improving soil health. The aim of the project is to provide a regional-scale assessment of biological soil health in farming systems that have been using chicken litter amendments in the Riverina cotton growing region. They would also like to know the baseline soil biological health of non-amended agricultural soil in the area. The survey will consist of a one-off spot measurement of soil respiration on bare soil fields and a surface soil sample will be collected. Initially, the researchers are hoping to get 50 volunteer sites with sampling taking place over June or July. The researchers would also require some basic information on field history, such as chicken litter and fertilizer application rates. With this data, Dr Quayle and Dr Webb will be able to directly assess the potential for improving soil



biological health in intensive irrigated farming systems. This research is funded by CRDC looking at optimising manure management for soil fertility and plant nutrition in the southern cotton growing region, so the focus will be on cotton farms that have received or not received chicken litter amendments.

To volunteer a site or for more information, contact Wendy: w.quayle@deakin.edu.au, (0417436775) or Jackie: j.webb@deakin.edu.au, (0417634434).



Defoliation

With defoliation just around the corner the Cotton Industry is reminding all growers, consultants and applicators to be vigilant when applying harvest aids this season. With lower hectares of cotton across the valley we will have the opportunity to allow for optimum conditions for applying harvest aids. We have the advantage of the improved mapping platform SataCrop <https://crop.satamap.com.au/>. It has the function of identifying sensitive crops in our regions. We encourage all farmers to use this platform to share information on any crops in your area. This is the first year of Satacrop so hopefully it will get more coverage of all summer crops in the future.



Fig 1: Coleambally area – Cotton Crops in white and citrus in green. (Source <https://crop.satamap.com.au/>)

CottonInfo has also produced a Defoliation Preparation 2-page document that is a great summary of best practice for defoliation. Please share this document with your clients, applicators and contractors or print it off and leave it in the tractor or spray rig. Contact your Cotton Australia Regional Manager or your CottonInfo REO if you have any concerns about defoliation this season.

Premature senescence

There are some fields that are now showing signs of senescence. It is debatable if it is actual premature senescence at this late stage in the crop as root systems get less efficient and there is a big boll load on the crop. Symptoms of P and K deficiency are hard to tell apart at this late stage so it maybe a combination of both. Cotton has a big demand for potassium during boll fill and the plant re distributes the K in the top leaves to the bolls as it can't meet demand from the soil reserves. The root system may be compromised by compaction, waterlogging after the storm rain and other imbalances such as high Magnesium or Sodium in the soil.

A K trial at the IREC field station last season showed no response to K fertiliser. It was in a bay that showed premature senescence in the 2017/18 season so was seen as good site to see responses to K fertiliser. On looking in a bit more detail the bay had 2t/ha of Gypsum applied before the 2018/19 season. This application slightly moved the Calcium % up in the soil and decreased the Mg % (See Table 1). The recommended ratio of K:Mg of 0.12 for cotton was reached and probably explains why no premature senescence was seen. This trial was possible with K fertiliser supplied by Incitec Pivot.

CEC Cation	2017 cmol/kg	2017 CEC %	2018 cmol/kg	2018 CEC %
Calcium	11.3	49.4%	14	53%
Magnesium	10.4	45.2%	10	40%
Potassium	0.79	3.4%	1.3	4.9%
Sodium	0.46	2%	0.53	2%
Ca: Mg	1.09		1.4	
K: Mg	0.08		0.13	

Table 1. Soil test results 2017 and 2018 IREC K trial site

Are we in for a wet cycle?

<https://app.longpaddock.qld.gov.au/poster/>

Reminder

The Soils workshop and crop walk planned for the 6th April have been postponed.

Here is an interesting model that explains why we need to take social distancing seriously.

<https://www.washingtonpost.com/graphics/2020/world/corona-simulator/>

March question - Can you name this plant? Distantly related to cotton



February question. Answer Alec town



Regards Kieran

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