Welcome to the 12th edition of the Cotton Wrap!!

Dryland/Irrigated Cotton
Mike Bange and I are collaborating on a few trials this year looking at some hormone sprays to manage crop growth and to hold fruit. The plan is for a Dryland site at Bellata and Terry Hie plus an irrigation site, possibly 2 in Emerald. More difficult trials will be taking place at ACRI as well with the same chemicals. We will also look to collaborate with CSD and run a few row configuration versus planting date trials on Dryland if the Gods are kind and rain falls.
I happened upon this new planter the other day all primed for dryland cotton. Specifically built by Boss it has a number of different seed box points with changing requiring a couple of pins taken out and can adjust to super single, single skip or basically nearly any configuration needed.

Rowena Field Day
Thanks to all the support at Rowena on 23rd talking about Dryland cotton. We are still trying to get a price out of Luffy for Bollgard 3 but I will keep asking. Anyone who missed out I can send you a copy of some of the presentations so let me know if you require.
The take home messages were costs of around $900/Ha, dry El Nino influence for October, look at temperature forecasts not just rainfall forecasts, obey the 8 rules to growing Dryland cotton and it is much easier to grow Dryland than it used to be. There was some interest in a follow up especially in regard to the weather in maybe March prior to winter cereals, let me know your thoughts.
Also a plug for the Dryland Cotton Grower Network which you are all now part of and is a group which aims to identify and progress relevant practical research into growing Dryland cotton so pass on any issues and thought you may have in regards to gaps and issues. There will be many areas to look at with the introduction of Bollgard 3.

Science Forum
The Science Forum was held in Toowoomba at the start of September with a major outcome being for me to realise I am not very smart. There was an amazing array of projects being conducted and some of the things that I took away were -
Compaction from the 7760 pickers has been measured down to 70cm and so is difficult to remediate.
Soil is a living system with up to 1 billion bacteria living in one square metre of soil. The numbers and diversity are related to soil structure and soil carbon levels and they benefit and thrive with plant diversity. Healthy organic soils have more medium pores which fit between the size of 2-50 microns which is where the most plant available water is held.
High levels of soluble fertilizer will diminish beneficial nutrient processes in your soil. Cotton is not good at following bands of fertilizer so spreading, especially P and K is better and depth is not the most critical.
Francois Visser has uncovered a test for measuring mineralisation in your soil and we will trial that test this season.
Silver Leaf Whitefly (SLW) has many natural predators and so caution should be taken with chemical selection especially spraying Mirids with some resistance showing up already.
Alison McCarthy is developing a way in which growers can measure soil water and crop development automatically and water accordingly. The end game being to set up camera’s on overhead irrigation

For further information contact
Geoff Hunter on 0458 142 777
systems which can take a photo and a computer would automatically vary the nutrients and water applied. This could be very important for future applications in precision ag.

Stuart Gordon has a project looking at self adjusting seed fingers on cotton gins which can increase the turnout by a further 10-15%. Easy to retrofit they look like a great addition to any Gin.

**Trials**

Jon Baird from DPI ran a trial at Ruvigne near Gunnedah looking at different N rates and water deficits. I have included a couple of graph to show some results. The trial did show higher uptake of N with the lower moisture deficits which shows that water scheduling will have an impact on nitrogen efficiency and it also showed that the 70mm deficit at 210 units of N was the best strategy for this season at least for profitability.

![Graph showing N uptake and water deficit](image)

**What’s On**

7th Oct- Co-Vert meeting in Goondiwindi.

8th Oct- Gwydir CGA Research Forum.

**Sayings of the Month**

‘The greatest enemy of knowledge is not ignorance. It is the illusion of knowledge’. Stephen Hawking.

“It is better to remain silent at the risk of being thought a fool, than to talk and remove all doubt.” Maurice Switzer.

**Welshy’s Weather**

The 2015 El Niño looks set to flex its muscles in October and potentially November, with above average temperature predictions the most noticeable feature across multi-week models. A mass of dry, stable air looks set to camp over eastern Australia this month putting pressure on water budgets. I recently ran some numbers on historical evapotranspiration levels and the Niño indices using CSIRO software. In October and November, the relationship between El Niño and ETo was almost perfectly linear (see figure below for Moree). It would be prudent for irrigators to factor in higher water use due to higher evaporation rates in the next two months. Let’s hope the MJO and warm Tasman & Coral Sea temperatures can combine to feed-in some moisture and break up this pattern in November.
Does anyone know where this picture is from?

Answer from last month - Looking north into the Arcadia Valley in Central Qld.

A rose and 2 thorns.

Until next time

Cheers

Geoff