



the cotton wrap

FEBRUARY 2018 SEASON SUMMARY

The season continues to disappoint for rainfall with very little worthwhile rainfall in the last 2 weeks. Irrigated crops with enough water look fantastic with high fruit loads and very few insects. The cool weather 10 days ago did slow the path to cutout and some Pix® did go out but even without that crops are cut out or at least very close. Dryland crops across all areas are starting to 'hit the wall' with the Liverpool Plains the last area which had been holding on but this consistent hot weather is even taking a toll there now as well.

This Dryland crop of Scott McCalman's is holding on despite the dry, just.



Scott McCalman and Mark Hamblin, "Cincinnati"

Insects are starting to build with Walgett area reporting SLW and Mirids requiring control and in other areas a similar story with maybe not too many SLW but a few Mites instead. The picture below shows some pretty severe damage at ACRI as part of an experiment being run by Simone Hiemoana for CSIRO.

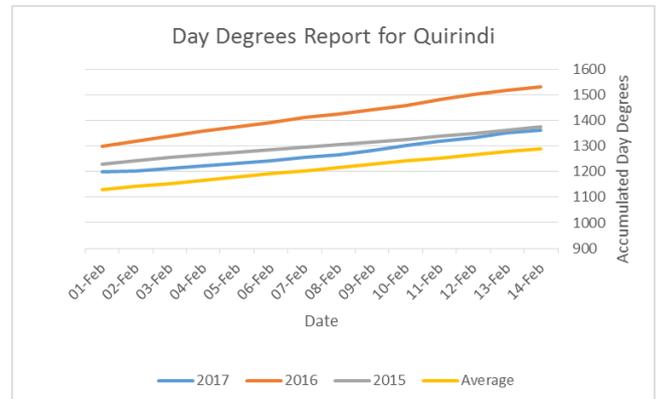


Mite damage at ACRI

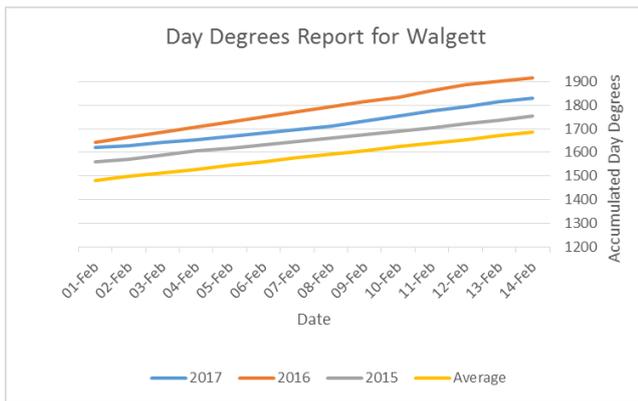
DAY DEGREES

Report for a planting date of 16th October 2017 until 14th Feb 2018.

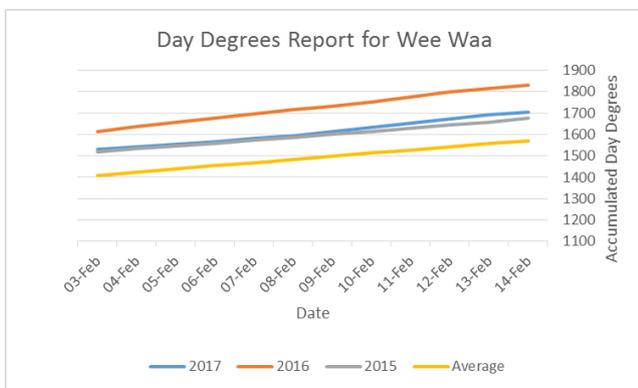
Quirindi	2017	2016
Hot Shocks	31	38
Cold Shocks	30	30



Walgett	2017	2016
Hot Shocks	55	72
Cold Shocks	11	20



Wee Waa	2017	2016
Hot Shocks	47	57
Cold Shocks	9	20



RESEARCHERS CORNER

The annual Cottoninfo tour was held at “Waverley” last Friday and focussed on Nitrogen and Water Efficiency.

Steve Carolan and Andrew Greste have undertaken some major developments with new channels and 75mm pipe through the bank which is activated via Padman Stop gates which can be operated via a mobile phone. This does have a payback of 3-4 years through savings in labour but the key reason for them was more to do with managing a typically dry or low cotton year in respect to staffing levels and then to have the ability to grow much more cotton in better years without the need to find more staff. Plenty of technology on display from the NCEA guys based at USQ with remote sensing of water levels, irrigation progress/ efficiency and rainfall. Although they are doing it by erecting towers to transport better signals and also using the Taggle network they all agree that telecommunications is a key impediment to the widespread rollout of suitable technology.

The unexpected take home I got was this picture below. Steve and Andrew are embracing the

rotobuck, which is still required with their new system so with this front mounted chisel plough it allows them to travel at around 8-11km per hour and with GPS guided technology as Steve says “The biggest problem is running out of phone coverage so you can’t surf the net”.



Front mounted chisel plough At “Waverley”

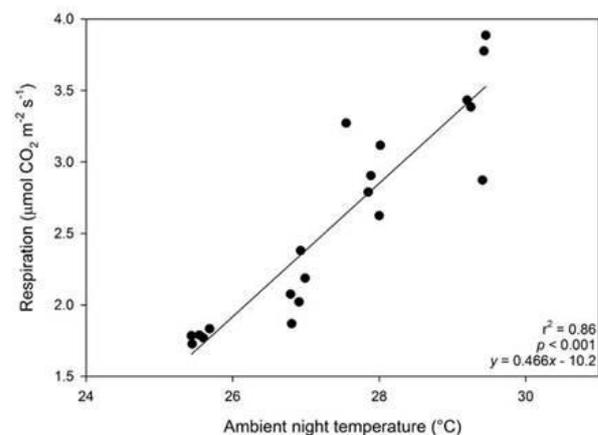
HEAT ON COTTON

Avid readers will remember this in an article last season but I thought it valuable to remind you again about high temps and what you need to know to help you sleep at night.

Warren Conaty from CSIRO informs us that- High night time temperatures will increase respiration (Figure 1) resulting in the plant using more energy that they stored during daytime photosynthesis, and can possibly result in:

- 1) lower photosynthesis in daytime;
- 2) smaller number of flower buds; and
- 3) lower carbohydrate content in flower buds

Note- all these process can affect yield.



Effect of night temps on respiration (Fig 1)

“The impact of a high night-time temperature – generally above about 24 degrees Celsius – is that the plant will end up using more of the energy that

it stored from the daytime to maintain cellular function overnight.

So basically, what these high night temperatures mean is that when the plant wakes up the following morning, the first few hours of photosynthesis make up that loss from the night before instead of driving new growth” Warren Conaty, CSIRO.

Remember, although respiration uses up some of the fixed carbon resources, it’s a vital process and there’s not really anything much you can do about it. It’s something the plant has to do to maintain its photochemistry. High temps (especially night) will increase respiration, but apart from avoiding other stressors (water, nutrition etc) there’s not much you can do to avoid the plant using some of its assimilated carbon in respiration to maintain photochemical apparatus (ie maintain cellular function overnight).

The good news is that bolls >5 days are unlikely to be shed so at this stage in crop growth there is less of an impact.

SAYINGS OF THE MONTH

“To see what is right and not do it is a lack of courage”- Confucius

“The way to get started is to quit talking and begin doing”- Walt Disney

“Don’t let yesterday take up too much time today”- Will Rogers

WELSHY’S WEATHER

It’s unlikely the MJO will pass through the Australian region again this month. At present its weakening over West Africa, so we need to look at other possible events to unsettle the stable Tasman high pressure systems currently holding us to ransom.

The blocking index sees a return to more normal levels in the second half of February which is encouraging after 2 weeks in the negatives. Weather models are currently showing some signs of rainfall penetrating inland areas from around the 22 Feb – 3 March.

More details to come in Mondays Moisture Manager. Thanks Geoff and all the best in the future.

Hold on to this copy because it is the very last. For those who have not heard I have resigned from the Cottoninfo team and finish this Friday 16th Feb. It has been a great 5 years and I thank you all for such strong support and interesting challenges.

If you do want to keep in contact my new number is-

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- email- huntergeoff362@gmail.com

Until next we meet, Adios Amigos.....



Geoff Hunter, signing off.

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