



the cotton wrap

JANUARY 2018 SEASON SUMMARY

Has anyone out there had some rain in the last month? The only notable rainfall was a storm reported by Nick Beer which gave them 10mm down near Spring Ridge until a few good storms, although isolated with falls of up to 25mm in the last few days. Temperatures have also been high making us all question the BOM forecast for a cool and wet January.

That being said the cotton with adequate water and no 2-4D damage looks excellent with plenty of plants above 90% retention. Rob Eveleigh is finding the same with his view that the crop is probably about 1 week ahead in terms of maturity and water use is high as it loads up with fruit. Coupled with this boll load the heat is also contributing to putting the plant under a lot of stress. This is why we are seeing crops move from 8 NAWF quickly through to 6,5 and 4 NAWF and many Pix® applications have not been needed as the fruit load keeps the plant in check. So any mistakes will be magnified at the moment so keep up the water if you can. Remember also that even though water use is high as the crop matures it takes much less resources, including water through the boll filling period than what it is requiring now and that is slightly closer than usual.

Insect pressure has been low however a big influx of Mirids occurred over the last couple of days around Walgett and they are being treated and some sprays are going out on the Liverpool plains to control numbers at or a little above threshold with Glyphosate applications. Whitefly are also

starting to turn up in crops to the west of Walgett and I have heard some reports from the Liverpool plains as well.

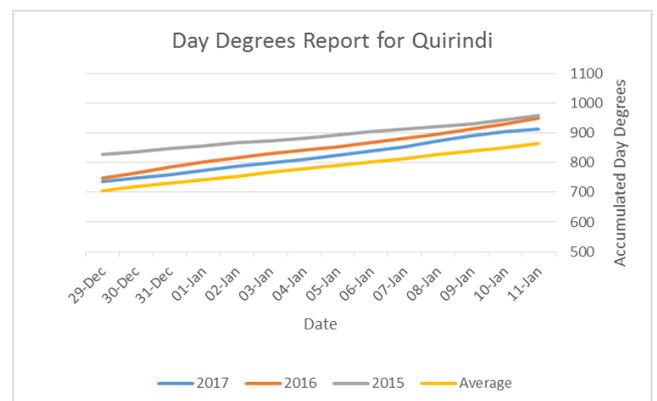
See below an update on the 2-4D damage at Walgett.



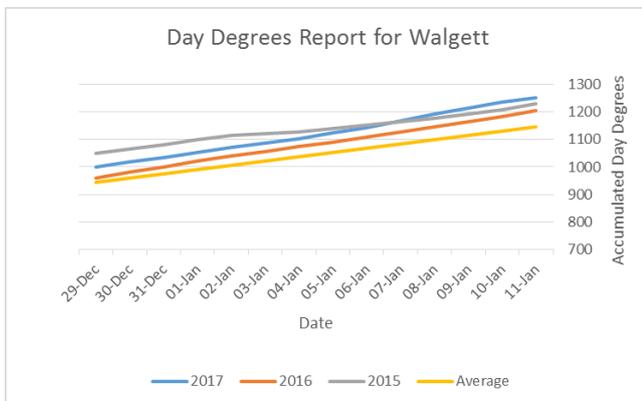
DAY DEGREES

Reported for a planting date of 16th October 2017 until 11th Jan 2018.

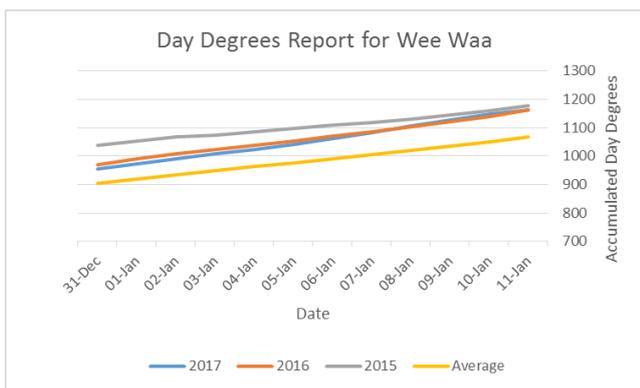
Qurindi	2017	2016
Hot Shocks	16	16
Cold Shocks	27	30



Walgett	2017	2016
Hot Shocks	34	39
Cold Shocks	11	20



Wee Waa	2017	2016
Hot Shocks	28	25
Cold Shocks	9	20



RESEARCHERS CORNER

Dryland crops have been looking very good until the last week or so and with the hot weather and distinct lack of rain we are seeing NAWF move up fairly quickly now. Janelle Montgomery is reporting some shedding in the Gwydir especially in Dryland crops so she put the question to **Dr Mike Bange, Senior Principal Research Scientist (Plant Physiologist), CSIRO** about what is happening.

For the irrigators, if the plant has moisture there is not much more that you can do. Once temperature goes above 32 Deg crop development no longer progresses at a rapid rate and once 35 Deg is reached it genuinely starts to

get into high temperature stress. At times we have found water use will sometimes decline in very hot temperatures as the stomates can close because the plant can't pull enough water because of the heat. This season we are seeing high fruit numbers so it is a good idea to make sure the water is kept up.

I have witnessed small well irrigated crops suffering from wilting with the hot conditions (temp and wind). I would have no doubts that these conditions were affecting the plants. Also given that there were no canopies there is little insulation from the heat, so they are really exposed.

Photosynthesis would most likely be affected in a negative way and this could lead to shedding.

This heat stress is being explored with the use of canopy sensors and in collaboration with Hiz at CSIRO we have put out sensors at Rob and Helen Harris' property "Myralga" and also Dave Miller at "Bynia".



Geoff Hunter and Hiz with a weather stn at "Bynia" Walgett

WHAT'S ON

16th Jan- Spreader Field Day at Boggabri, ring Geoff 0458 142 777.

17th Jan- Spreader Field Day at Spring Ridge, ring Geoff 0458 142 777.

9th Feb- Nitrogen and Irrigation Tour, "Waverley" Wee Waa.

INSECTS

David Parlato, (CQ Consultant), Brad Anderson, (CQ Grower), Iain Macpherson, (Consultant) & Arthur Spellson, (ACSA) came south to the Gwydir

and Macquarie to share their experiences in managing Silver Leaf Whitefly and Mealybug.
Key Messages:

- Emerald 2001 Low numbers build up exponentially in a perfect storm for favourable SLW conditions and they exploded.
- Entire region covered in honey dew – clouds of SLW in town and people were wearing surgical mask's , aircraft had visibility issues , that's how thick they were.
- Luckily they dodged a bullet as rain at the end of the season washed off the stickiness
- Toured Arizona and came home prepared to make change, no choice if they wanted to grow cotton.
- Started AWM groups, communication the key.
- New approach: Soft chemistry , monitor retention, preserve beneficials
- Manage the population all season, stay soft as long as possible. No longer use SP's or OP's. Anything hard had to be late in the season if at all.
- All the beneficials, parasitoid wasps and soft options help but they can't work alone , they need to be working together to control the population, if you disrupt 1 of these things it can be the leg up the SLW or mealybug need to get a hold.
- "Whatever you do, you are creating your own problem. Every time you put an insecticide on the crop you are affecting something else". Very relevant to Mealybugs too which are heading your way.
- Always have SLW and Mealybug in mind with every spray decision especially early season
- Prophylactic sprays are problem in the industry many sprays go in with the round up even if numbers are not at threshold.

If anything drives you to IPM, its Mealybugs.

WELSHY'S WEATHER

Jon delivered a webinar on Wednesday on climate and a summary in my words would be that we are in a La Nina event and moisture levels are good so rainfall probability is still there. The MJO will enter our region around 20th Jan and analysis shows that at this time of year rainfall often follows the event by 7-10 days. It has been explained to me that the MJO is a tropical disturbance and low air pressure which is moving around the equator and it has the ability to disrupt and change convection patterns. Analysis also shows that an active MJO season correlates to better rainfall and it has been distinctly lacking over the last 3 summers. Multi week models struggle for accuracy at this time of year and what we need is a build-up of moisture in the tropics, especially the Coral Sea to increase our chances and things can move quickly. This time of year we track the passing of the MJO over eastern Australia in the hope that the stubborn high pressure patterns in the Tasman Sea that keep us dry can be unsettled and bring some much needed rainfall. At this time of year, its best to concentrate less on season and multi-week models and monitor a select few weather models such as these ones below.

- [NCEP](#) 16-day
- [WATL](#) 8-day
- [GEM](#) 6-day

Here is the link to the full recording of the climate webinar from last Wednesday.

<https://www.youtube.com/watch?v=GpAdbHnBDtM&feature=youtu.be>

Until Next time

Geoff Hunter

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