

The cotton wrap

January 2017

Welcome

Hot and dry is the order of the day with water entitlements beginning to be of some concern for some. Cotton is compensating well from early fruit loss due mainly to Mirids and climatic conditions. At Walgett Mirids are still present but generally below threshold. Heliothis have flown in late last week with some reasonable egg numbers present and Silverleaf Whitefly (SLW) are starting to be seen. Wee Waa are seeing a few Mirids, Mites and SLW in pockets with a widespread Heliothis egg lay last week.

Boggabri area had early pressure from Mirids and plenty of Rutherglen Bugs with pressure reducing in the last 2 weeks. Heliothis eggs present from the last few days but not in high numbers. SLW not yet present.



The *Verticillium* rotation trial at Boggabri was not spared from the mighty Rutherglen bug.

Liverpool Plains area still seeing Rutherglen bugs and a few Mirids and Mites with generally lower pressure across the region. Pete McKensie had insects dieing on the beatsheet due to the heat last week and he is also seeing quite a few Heliothis starting to come into sorghum crops.

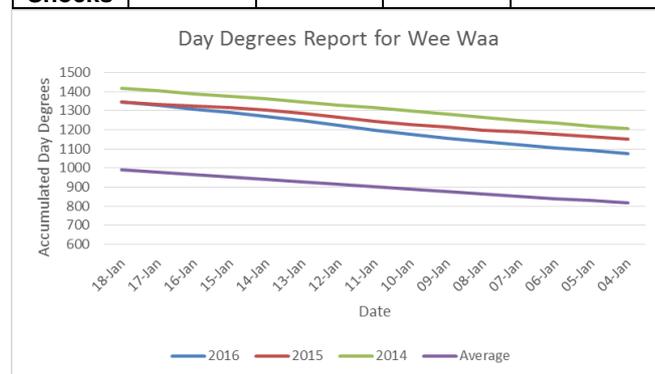
Day Degrees Update

There has been quite a change in accumulated day degrees across all areas with it tracking similar to last season and mostly well above average. The

real difference this season is the cold shocks early followed by the hot shocks now. October 10th plant.

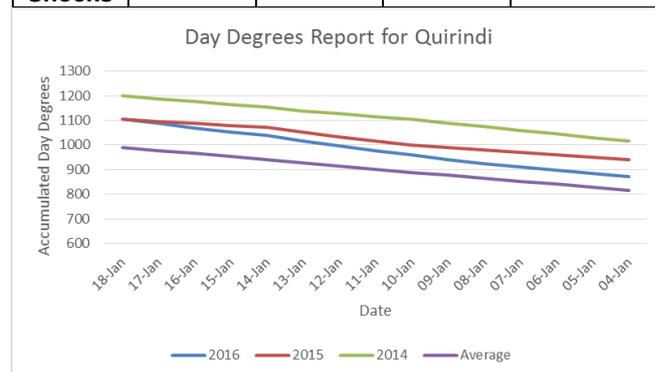
Wee Waa Research Station

Date	2016	2015	2014	Average
Hot Days	31	20	36	18.5
Cold Shocks	25	0	9	13.8



Quirindi Post Office

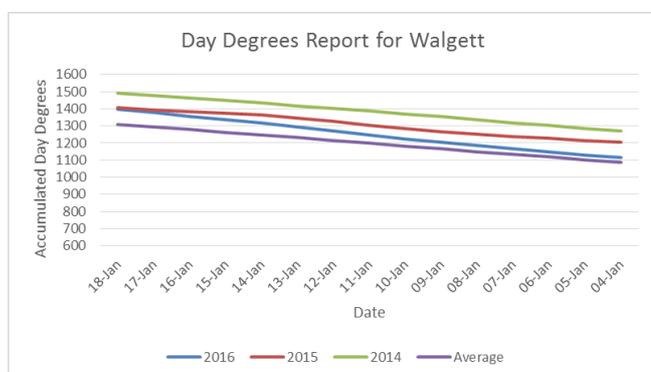
Date	2016	2015	2014	Average
Hot Days	21	14	19	8.2
Cold Shocks	36	13	17	29.7



Walgett Airport

Date	2016	2015	2014	Average
Hot Days	45	29	41	27.6
Cold Shocks	25	2	12	12.2

The cotton wrap



Insects

SLW is the insect on the radar now with hot dry conditions and a few sprays going out early season, which history suggests can increase numbers of SLW. It is important to-

- Monitor numbers, including nymphs regularly and consistently as time of day will influence the numbers.
- Adhere to the Control Matrix in the Cotton Pest Management Guide.
- Your defoliation date is important as numbers will reduce rapidly with no leaves.
- IGR's are a soft option which can typically provide 6 weeks of control but remember they disrupt the breeding cycle and so expect a 6-10 day delay before numbers decline.

Nutrition Advice

For those unable to attend last week's nutrition discussions with Chris Dowling here are some of the issues he identified which potentially could impact crop nutrition this season.

- A wet winter-spring leading to late, little or no ground prep and poorer soil physical condition.
- P and K not applied.
- No upfront N or some N lost to denitrification in late winter-spring
- Cool to cold soil conditions until squaring.
- Fruit loss from first 4-6 fruiting positions due to weather and insects creating a large discrepancy between crop thermal age and

physiological stage with respect to carbohydrate and nutrient resource allocation.

- Rapid fruiting and very high retention post insects.
- High number of heat and cold shock days to early flowering

Potential outcomes

- Root systems are possibly not as well developed (low density) this season.
- Very compressed and intense crop nutrient demand
- Peak N demand delayed 7-14 days due to fruiting pattern.
- 20-40% of pre-plant N may need to be replaced in crop if yield potential remains at target when N budget was first set due to pre sowing waterlogging.
- Where yield potential still exists there could be increased potential for late season K senescence syndrome due to high uptake rate and potentially a less efficient root system.
- A need to manage other nutrients later e.g. zinc

K senescence risk factors

- Poor pre-flowering root development (density)
- Low range adequate or marginal plant P and K status early flowering
- Poorly drained soils and paddocks (including dispersive, sodic, magnesian, compacted, flat)
- High yield potential
- Compressed fruiting period
- K senescence in the paddock in previous seasons

Triggers for K senescence

- Extended overcast period at peak K demand (1250 - 1500 DD)
- Waterlogging event at peak K demand (1250 - 1500 DD)

The cotton wrap

Avoidance

- Increase crop K supply prior to a potential trigger event.
- First choice strategy-one or two foliar sprays of 2- 4 kg/ha K (not chloride based) a couple of days prior to the first potential trigger event in high risk areas.

Nitrogen

Paddocks are coming back with extremely high soil test N and have indicated no N is required this season– do we believe it or not? – do a reality check and test plant tissue. Greater than 4.5 % N @1100 DD= high, indicating high soil test N is most likely correct.

- Best practice indicates that around 13kg of lint per unit of N applied is efficient. So 12 bales per Ha is 2724Kg of lint divided by 13 is 209 units of applied N required to grow 12 bales/Ha. Efficient irrigations, hot dry seasons and good soil fertility will do better (up to 18kg last season), waterlogging and poor crop rotations will do worse than this.
- The last 3 crops contribute the bulk of cotton N requirements with research suggesting as little as 20% of the applied N can be taken up in the first season.
- Sources of N have different uptake efficiencies.
- Fertiliser N rate is a moving target with the main factors being yield potential and fertiliser uptake efficiency.

What's on.

23rd Jan- Webinar 12noon. Managing late Irrigation with Janelle Montgomery, Mike Bange and James Quinn. [Register Here](#)

24th Jan- Liverpool Plains farm walk with Mike Bange, Rob Eveleigh and Simone Hiemoana 9-1pm, Ring Geoff 0458 142 777.

24th Jan- Spraywise Workshop with Nufarm and Bill Gordon- Bellata Golf Club, 2-5pm, Paul Sloman 0448 094 883.

16th Mar- Grower of the Year Field Day, "Connamara" Quirindi.

Welshy's Weather

For those following daily rainfall computer guidance, predicting rainfall seems a fool's paradise of late. The persistent negative phase of the SAM is helping keep NSW dry. On a positive note the Madden-Julian Oscillation is strengthening which may potentially drag abundant tropical moisture south into cotton areas in the next two weeks. It's difficult to gauge any consensus on the models with a spread on rainfall outcomes. In the last 25 years February has been the most reliable month for rainfall, although hasn't lived up to expectations in the last 3 years. Longer term indicators suggest 2017 could be a tough one for winter cropping on the back of a record strength Indian Ocean Dipole in 2016. Keep an eye on the Moisture Manager for updates.

Where is That?

Thanks to young George Powell for sending in this photo which sums up what all the irrigators are doing. Anyone got a pic for the dryland guys??



Until next time

Cheers

Geoff

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