



# the cotton wrap

**November 2020**

## SEASON UPDATE

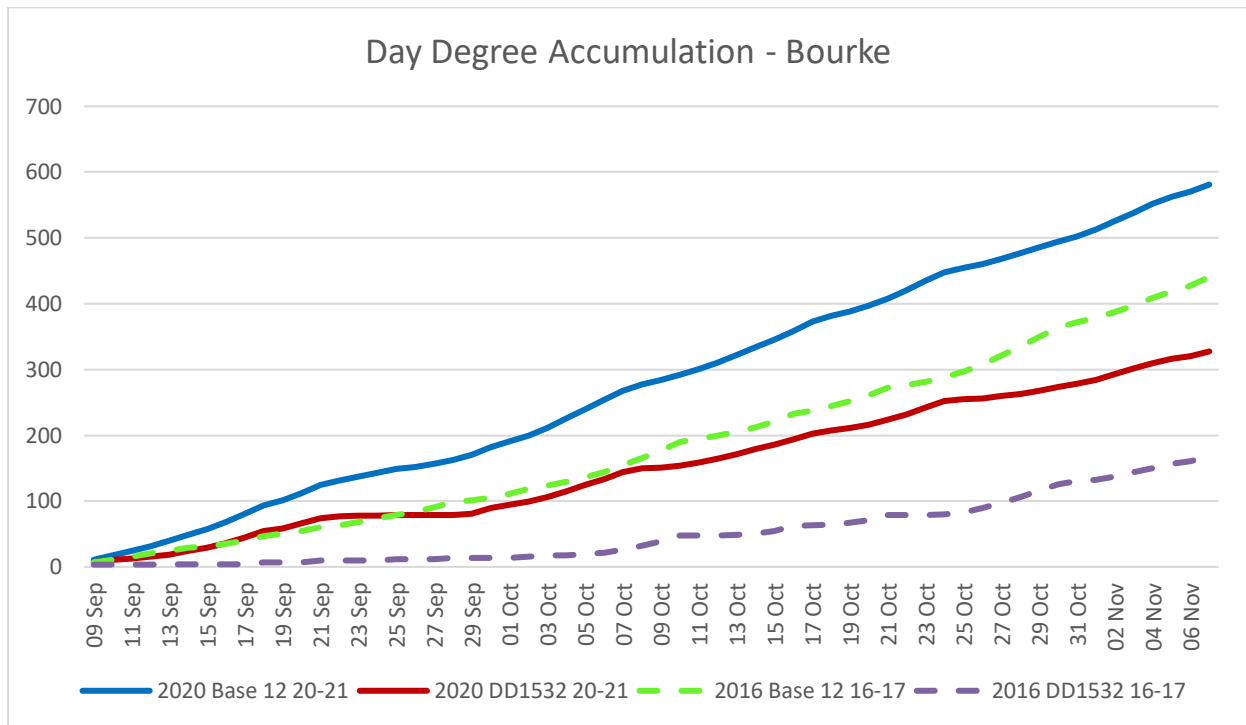
Looking back over the last 5 years, this season seems to be off to one of the slowest and coolest starts since 2016. Although this chilly start has been attributed to some much-needed rain, cotton seedlings are slow and there has been hail recorded in smatterings. There is some replant happening throughout the Namoi because of storms, hail, cool weather, and seedling disease. Early season disease surveys have been completed at Bourke and Walgett with the Lower and Upper Namoi being conducted last week and this week coming. A full update will be provided once we have finished, however cool temperatures and rainfall have certainly impacted seedling health with black root rot, Alternaria and rhizoctonia present in the Namoi.

This November edition of the Cotton Wrap will go into depth on some evolving biosecurity areas such as, Fall Army Worm and Reoccurring wilt. Pest activity has been subdued in recent seasons because of reduced cotton hectares and a drought-stricken landscape that surrounds. I just want to remind everyone of the importance of farm hygiene and best practice. Recent rain has been great for the region but on driving through the area there are a lot of fallows, channels, head ditches and roadways shrouded in weeds. As the area begins to become more productive it is also increasing the number of pest species who will be breeding quickly and resident to these little ecosystems. As Mealybug have been discovered more and more throughout the Namoi over the last few seasons it is really concerning to see farms covered in host weeds where the pest has been located before.

So, with Fall Army Worm, Mealybug and Reoccurring wilt now to consider in our system, **farm hygiene** and **come clean go clean** practices have never been more important. And remember, if you see something unusual – please contact myself or a tech specialist so we can be on top of emerging issues in the valley. See CottonInfo blog with some “IPM top tips for spring and summer” [here](#).

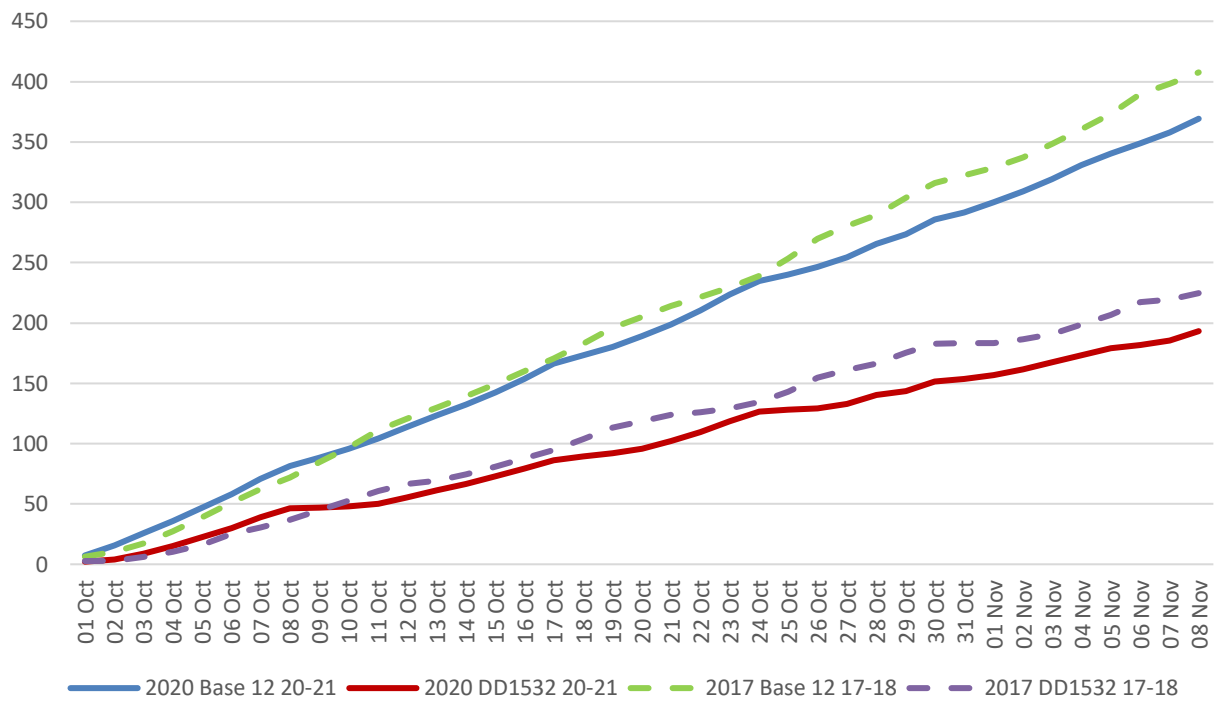


Day degree charts have been generated based on planting dates for each individual area from CSD's day degree calculator found [here](#).

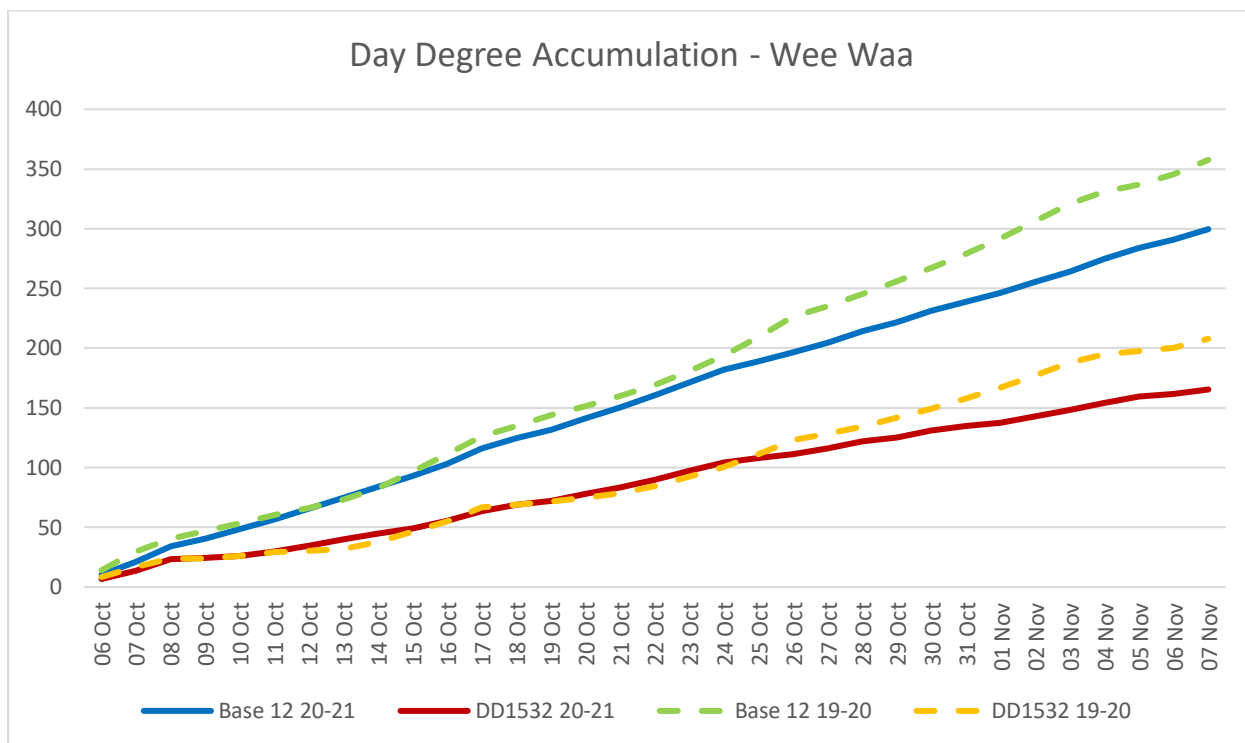


<b>BOURKE</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>10-year mean</b>
Base 12	581.1	578	629.9	585.2	440.6	586.7
DD1532	327.5	287.9	348.7	316.3	167.6	300.3
Cold shock days ( $\leq 11^{\circ}\text{C}$ )	18	24	18	18	34	24
Days above $36^{\circ}\text{C}$	2	7	8	3	2	6.4
Nights above $25^{\circ}\text{C}$	0	0	1	0	0	0.2
Days above $40^{\circ}\text{C}$	0	1	0	2	0	0.9
Total rainfall (mm)	44.8	97.4	40.7	83.4	70.4	49.5
Total radiation (MJ/m <sup>2</sup> )	1241.2	1315.3	1274	1266.6	1241	1206.6
Average temperature ( $^{\circ}\text{C}$ )	21.2	20.8	21.8	21	18.2	20.9

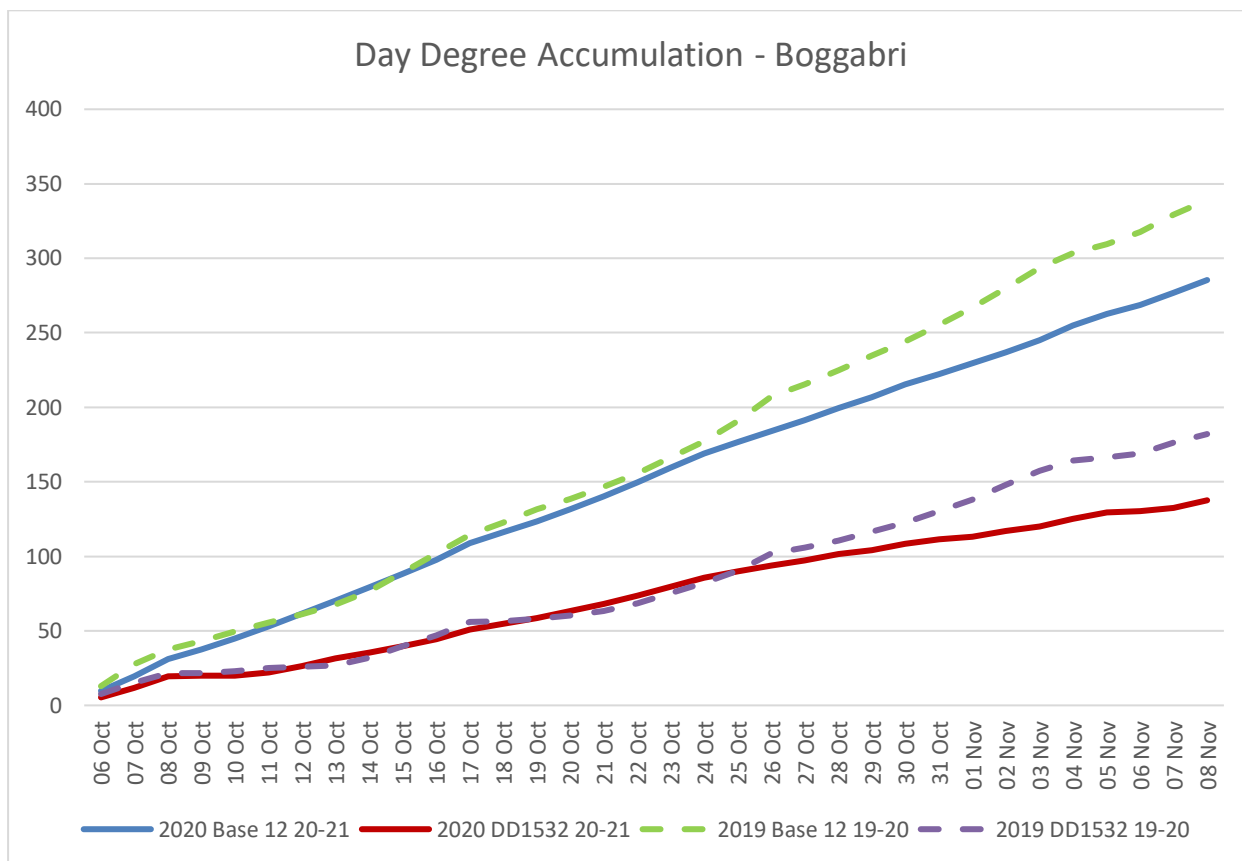
### Day Degree Accumulation - Walgett



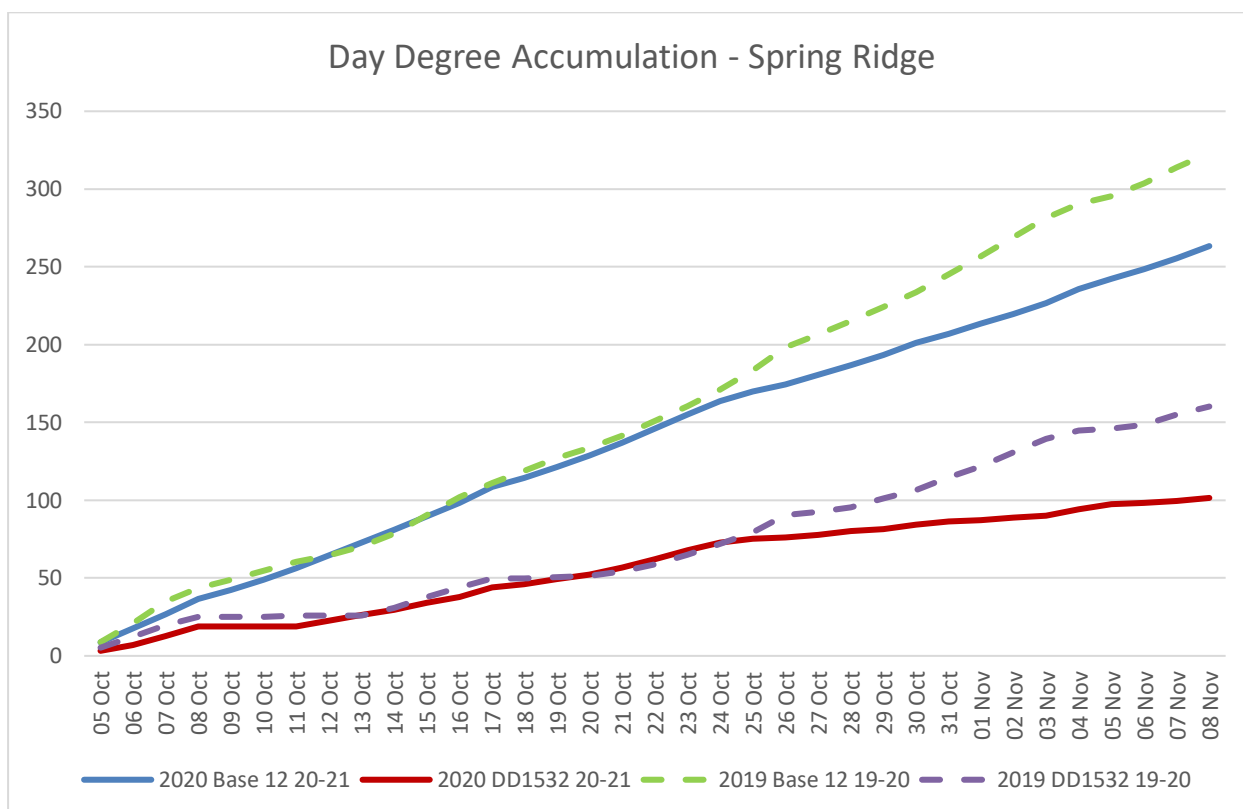
WALGETT	2020	2019	2018	2017	2016	10-year mean
Base 12	369.3	417.6	442.9	407.7	322.3	407
DD1532	193.2	219.8	259.7	224.7	111.8	215
Cold shock days ( $\leq 11^{\circ}\text{C}$ )	16	16	7	13	27	14.9
Days above $36^{\circ}\text{C}$	1	5	7	4	2	4.4
Nights above $25^{\circ}\text{C}$	0	0	0	0	0	0
Days above $40^{\circ}\text{C}$	0	0	2	0	0	0.5
Total rainfall (mm)	75.6	25.8	54.2	35.6	52	39.7
Total radiation (MJ/m <sup>2</sup> )	833.5	878.5	813.5	828.2	906.2	808.9
Average temperature ( $^{\circ}\text{C}$ )	20.7	21.8	23.1	21.8	18.2	21.6



WEE WAA	2020	2019	2018	2017	2016	10-year mean
Base 12	299.6	357.6	384.4	337.5	256.2	334
DD1532	165.4	207.9	242.2	195.3	97.2	188.2
Cold shock days ( $\leq 11^{\circ}\text{C}$ )	9	8	2	9	21	9.5
Days above $36^{\circ}\text{C}$	0	3	3	1	0	1.5
Nights above $25^{\circ}\text{C}$	0	0	1	0	0	0.1
Days above $40^{\circ}\text{C}$	0	0	1	0	0	0.2
Total rainfall (mm)	63.2	25.7	79.3	81.5	48.4	46.8
Total radiation (MJ/m <sup>2</sup> )	671.4	745.2	682.4	691.4	777.5	678.6
Average temperature ( $^{\circ}\text{C}$ )	20.7	22.4	23.6	21.8	18.2	21.6



<b>BOGGABRI</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>10-year mean</b>
Base 12	285.4	339	359.6	318.3	247.3	317.9
DD1532	137.6	182.1	214.5	173.6	76	164.4
Cold shock days ( $\leq 11^{\circ}\text{C}$ )	14	12	5	9	24	12.5
Days above $36^{\circ}\text{C}$	0	2	4	1	0	1.3
Nights above $25^{\circ}\text{C}$	0	0	0	0	0	0
Days above $40^{\circ}\text{C}$	0	0	1	0	0	0.2
Total rainfall (mm)	79	28.8	76.4	59.1	46	44.4
Total radiation (MJ/m <sup>2</sup> )	677.8	774.3	690.7	714	794.3	689.7
Average temperature ( $^{\circ}\text{C}$ )	19.7	21.3	22.4	20.9	17.3	20.6



Spring Ridge	2020	2019	2018	2017	2016	10-year mean
Base 12	263.3	323.2	330	295.3	222	296
DD1532	101.5	160.3	183.3	146.7	51.7	135.5
Cold shock days ( $\leq 11^{\circ}\text{C}$ )	21	13	9	11	26	16.5
Days above $36^{\circ}\text{C}$	0	1	1	0	0	0.7
Nights above $25^{\circ}\text{C}$	0	0	0	0	0	0
Days above $40^{\circ}\text{C}$	0	0	0	0	0	0
Total rainfall (mm)	118.4	42.1	82.4	58.8	60.1	49.8
Total radiation (MJ/m <sup>2</sup> )	665.9	786.4	668.6	725.1	815.5	688.5
Average temperature ( $^{\circ}\text{C}$ )	18.4	20.3	21.1	19.9	16.2	19.4

## COTTONINFO BLOG

### Communicate Your Biosecurity Requirements

If it can move, it can carry pests, weeds, and diseases. For this reason, it is important to communicate your biosecurity requirements to all people entering farms. Never assume people know the biosecurity measures you have in place for your farm.

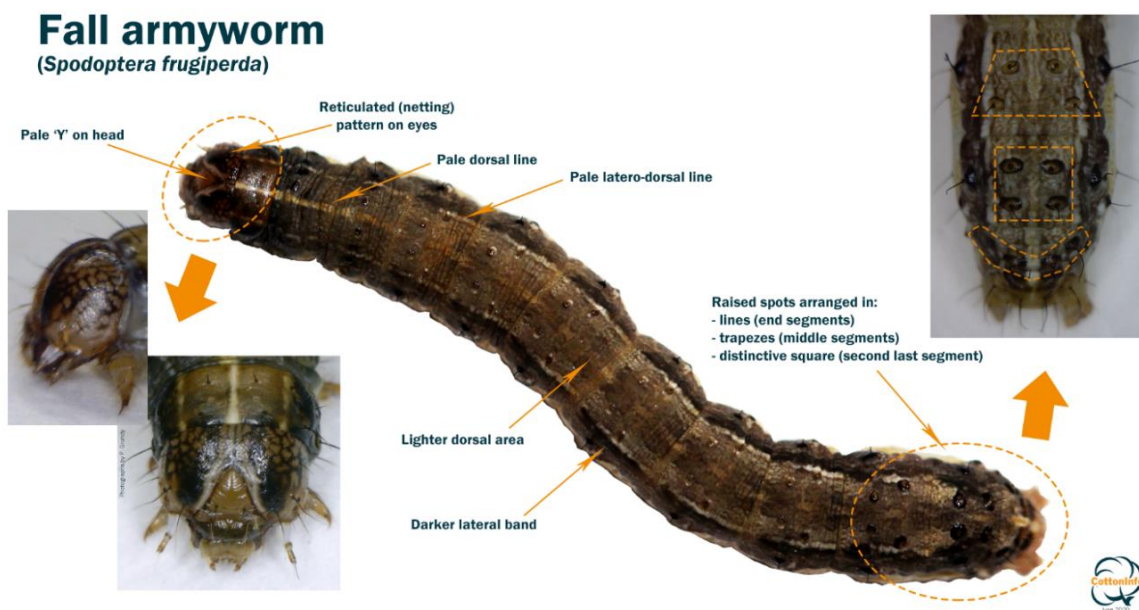
See suggested methods for communicating your biosecurity requirements to people.

Secondly, if there are any growers in my list that have a documented Farm Biosecurity plan – could you please get in contact with myself. CottonInfo are interested in getting in touch with a grower for a case-study.



## FALL ARMYWORM DETECTED LOCALLY

Fall Armyworm moths have been detected west of Wee Waa and east of Narrabri



Queensland Department of Agriculture and Fisheries Entomologist and CottonInfo IPM Technical lead, Paul Grundy, has provided the following update:

“With fall armyworm (FAW) detections throughout Queensland and well into NSW, many agronomists are taking a closer look at the caterpillars they come across in different crops.

Importantly, please note that FAW have not been detected in in any cotton crops (either Bollgard® 3 or unsprayed non-Bt cotton refuges) grown over the last 7 months in Northern Australia. Host preference field studies conducted by Dr Brian Thistleton and his team at the Department of Primary Industries and Resources in the NT also found no evidence for FAW moth laying eggs in in field grown cotton plots, however their study did show that FAW could feed and develop on conventional cotton when confined within containers in the lab without alternate host choices.

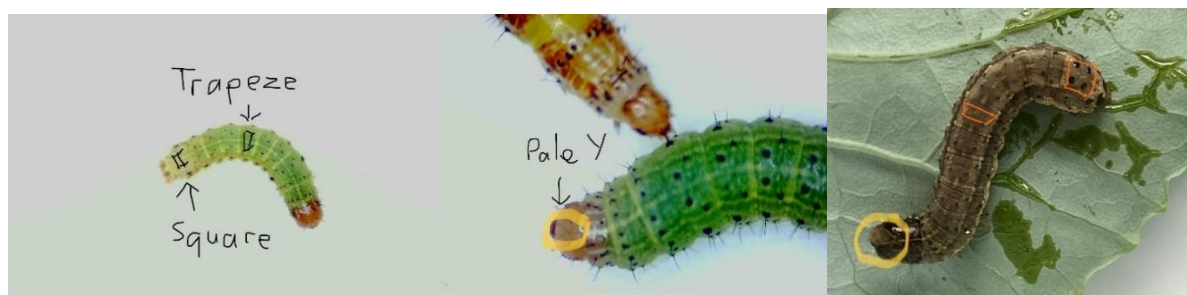
The incursion of FAW in Australia is still very new and therefore it is too early to definitively rule scenarios in and out. However, at this stage field observations and studies suggest that cotton is not a preferred host for egg laying FAW moths. Given that >90 per cent of the crop grown is Bollgard® 3, people are unlikely to encounter this pest on cotton during the coming season. For cotton crop managers the clear message is be alert not alarmed.

If you find or suspect that larvae of this pest are present in your cotton fields (on either Bollgard or non-Bt cotton refuges) please notify your local [CottonInfo REO](#) or the industry's IPM Technical Lead ([Paul Grundy](#)) so that steps can be taken to verify an identification. This is important as many researchers are currently trying to understand the pest status and host range for FAW. Fall armyworm can be very difficult to distinguish from *Helicoverpa* spp. when they are small (<15mm) in size, becoming easier to identify as they become larger. Some of the key characteristics are depicted on the larval image below and this [YouTube video](#)."

Further Information:

The [Beatsheet](#) and [GRDC](#) websites host a good range of information and links to other resources for those seeking more information. The Beatsheet also hosts [FAW trap count information](#) on their website for a range of locations.

GRDC are hosting a **webinar update on FAW on November 12<sup>th</sup> at 9am** (AEST). Melina Miles from QDAF and Brent Wilson from Nutrien Ag Solutions will make presentations. To register for the webinar, click [here](#).



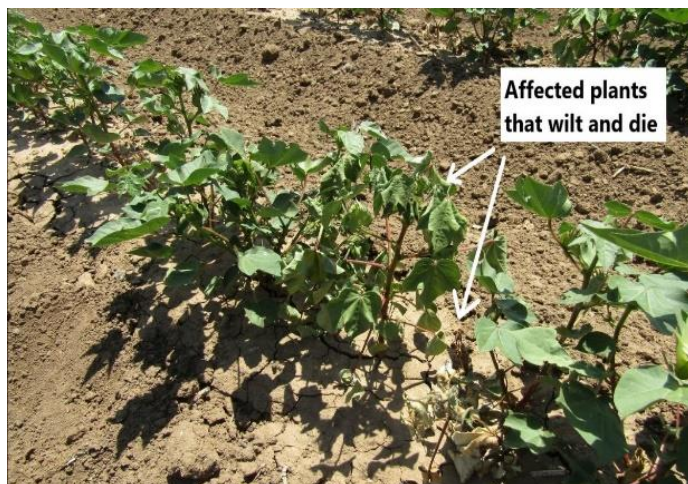
*Photos show some of the key features used to identify FAW.*



## REOCCURRING WILT: BE AWARE!

Growers and consultants are asked to be alert for plants with symptoms of the potentially new disease **reoccurring wilt**. Reoccurring wilt had previously been discovered in Queensland, and after more diagnostics have been completed in NSW it has become apparent that the soil pathogen has been identified in the Namoi and Gwydir regions.

The [CottonInfo Fact sheet on Wilt diseases](#) has been updated to provide information on this new disease. It is so important if you are seeing any plants with similar symptoms that you collect these plants and send them into the pathology team for identification. In hindsight you may be able to think back to seeing plants of this description, so it is important to keep an eye on those fields going forward and exercise caution when moving between fields with machinery, implements and foot traffic.



Have you seen fields with the following symptoms?

- The odd plant or patches of plants that wilted and suddenly died with dead leaves usually remaining on the plant.
- Reoccurring patches of dying plants getting larger over past seasons with no explanation for plant death i.e. seasonal conditions.
- Dying plants can be amongst healthy plants.
- Bronzing of leaves and petioles.
- Reddening of the roots and root decay i.e. if plants are pulled out of the soil, the taproot snaps due to root decay.
- May see reddening of the vascular tissue.
- Stem canker/lesions may be present.

*Keep an eye out for these symptoms this coming season. If you have concerns or plants expressing symptoms, contact your state pathologist:*

**QLD DAF: Dr Linda Smith 0457 547 617**

**NSW DPI: Dr Duy Le 0439 941 542**

## FIRST IRRIGATION

Timing of first irrigation is critical to setting up a plant structure capable of supporting early fruiting growth. The CottonInfo water team have put together an “[Irrigation Toolbox Series](#)” which includes factsheets and videos to help you better understand best practice for an efficient irrigation. A recent CottonInfo e-newsletter “[Timing your First Irrigation](#)” focused on this important step in crop management.

Key points include:

- Monitor soil moisture conditions – use a shovel!!!
- Irrigate at around 50% available water WITHIN THE ROOT ZONE
- Check weather forecasts near time of irrigation
- Irrigate at time of hot spell if soil moisture looks limiting
- Do not over irrigate

The newsletter contains further detail and links to a range of other resources including the below Mike Bange Video on the topic (press Ctrl + Click on picture).



Furthermore, see CSD’s Facts on Friday from 2019 on the importance of first irrigation [here](#).

## LATE PLANT OR REPLANT CONSIDERATIONS

The CSD [Facts On Friday publication from October 27](#) covered considerations for late plant or replant cotton crops.

The [replant calculator](#) assists growers in determining the potential of the current crop versus the potential of a replanted crop.

The Facts on Friday document provides crop management targets for late plant cotton along with the reasoning for those targets. It also discusses important considerations such as variety choice, potential pest and disease issues and challenges in maturing the crop for harvest.

Access to the above replant calculator and publication is restricted to CSD members.

## CSD UPDATE

- New roles available at CSD to support the organisation’s 5-year plan.

- FastStart Cotton POP app available – the app helps count cotton plant stands utilising the camera on an Ipad or Iphone. The app is available for free from the Appstore.

Numerous FactSheets and Publications were released by CSD during October and CSD members can find these under the [Resources tab on the website](#).

Topics covered include:

- Late Planting options (Factsheet)
- Setting the crop up early-season (factsheet)
- 2019-20 CSD Ambassador Network program (newsletter and report)
- Cotton POP app (factsheet and newsletter)
- CSD Variety Trial Shield winners (newsletter and case studies)

**SATACROP** - <https://satacrop.com.au/>

Reminder for everyone to ensure you are updating SataCrop with all crops, not only cotton. Looking at the map now, there are still large area's which have gone into summer crop but have not been updated.

### **DATES FOR THE DIARY**

GRDC are hosting a **webinar update on Fall Army Worm** on **November 12<sup>th</sup> at 9am** (AEST). Melina Miles from QDAF and Brent Wilson from Nutrien Ag Solutions will make presentations. To register for the webinar, click [here](#).

### **CCU's**

Please keep an eye out for your first CCU coming to your area soon (just getting through disease surveys and then we get into them).

**Cheers,**

**Elsie Hudson**

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