



**Information** when you need it



# Darling Downs

**December 2020**

**Welcome to the December Edition**



## Early-season disease surveys

The cotton industry's annual early-season disease surveys have been completed on the Darling Downs.

The project is led by Dr Linda Smith of QLD DAF, and involves the QLD DAF pathology team Linda Scheikowski and Dinesh Kafle, as well as myself.



It is important to know what diseases are present and where they occur in/on your farm to implement management strategies which can assist with minimising the severity and spread of diseases.

Reports and findings will be available in the new year.



## IPM top tips from CottonInfo and Paul Grundy (QDAF)

### 1. Keep an eye out for fall armyworm.

With fall armyworm (FAW) detections throughout QLD 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 any cotton crops (either Bollgard® 3 or unsprayed non-Bt cotton refuges) grown over the last 7 months in Northern Australia.**

### 2. Be prepared for increased pest activity.

Pest activity has been relatively subdued in recent seasons due to reduced cotton acreage and a very dry surrounding landscape. Although the cotton area for 2020-21 is still well down on previous seasons in many valleys, increased rainfall will see major changes in the surrounding landscape that will in turn influence pest populations that will affect crops now and in future seasons. Many common pests such as mirids, *Helicoverpa* spp. and plant feeding shield bugs are likely to benefit from a greener landscape.



Another group of pests to be on the lookout for with increased rainfall are aphids. Both cotton and green peach aphids have been infrequent for many years but, with rapid lifecycles and increased host abundance in the broader landscape, opportunity exists for rapid population build-up that could spill over into cotton crops. Fortunately, aphids have many natural enemies that commonly occur in cotton crops. Ladybirds, hover flies, lacewings and parasitic wasps can all exert effective and timely biological control.

### 3. Maintain good farm hygiene.

If you have not caught up with feral ratoon and volunteer cotton removal in and around your farm, today is the best day to start getting things ready for better seasons ahead with the prospect of replenishing storages.

Key areas to inspect include tail drains, supply channels, roadways and fallow fields in and around your farm. A survey of perennial feral cotton plants taken in 2013 found that 63 per cent of plants sampled in Central QLD along farm roadways, supply channels, drainage and fence lines were infected with Cotton Bunchy Top Virus (CBTV). A

similar pattern was found in the St George irrigation area and Darling Downs with 29 per cent and 53 per cent of feral growing cotton plants found to be infected with CBTV.

#### **4. Be mindful of insecticide resistance.**

Resistance levels for many pests have subsided during recent seasons due to the drought-related reduction in cropping and changes in insecticide stewardship. Reduced resistance levels are a positive for the industry but as cropped area increases there are some trends to be aware of.

## **New Regional Manager for Cotton Australia**

*Rob Crothers started with Cotton Australia as the new Darling Downs Regional Manager on Monday and has wasted no time in getting on farm to help cotton growers with myBMP.*

*Rob comes to Cotton Australia with over 36 years' experience in the Agricultural sector. He worked for Pioneer Seeds for 19 years in several roles including Sorghum and Corn Product manager, Northern Regional Manager and Territory manager for the Central Downs and Burnett.*

*Previous to that Rob spent 3 years working for Wesfarmers Landmark as a sales agronomist.*

*Rob is 'right at home' on the Darling Downs, being a Dalby Ag College graduate and spending his first 14 years of his career as a dry land and irrigated farmer near Warwick.*

*Rob's contact details are as follows:*



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## Your help needed: your thoughts on regional wellbeing.

### Please we need some more Cotton Growers to participate in this survey.

All in the cotton industry are encouraged to have their say on wellbeing through a shortened version of the University of Canberra Regional Wellbeing Survey.

In October, the Regional Wellbeing Survey was conducted; however, not enough people from the cotton industry completed it for the data to be statistically meaningful.

The survey is important and we need people in the industry to complete it because **the results and data will inform our industry's sustainability targets for wellbeing.**

To encourage more cotton growers and industry members to have their say, the specific questions for the cotton industry have been compiled into a shorter survey, which all in the industry are encouraged to complete as soon as possible.

By having your say, you will be playing your part and contributing to our industry's sustainability efforts around wellbeing.

The first 200 cotton industry members who complete the survey will be given the choice of receiving a \$30 gift card, or donating \$30 to a charity of their choice.

Closing date is January 31, 2021.

Have your say now: [http://canberrahealth.az1.qualtrics.com/jfe/form/SV\\_6hwiThc1cncCtq5](http://canberrahealth.az1.qualtrics.com/jfe/form/SV_6hwiThc1cncCtq5)

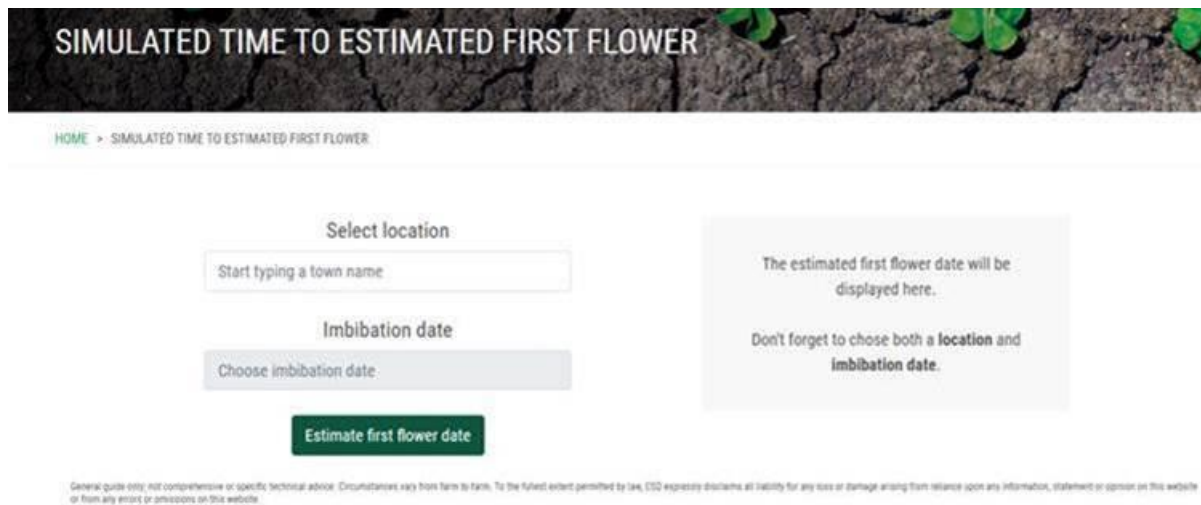
## Who is STEFF and BARRY?

### STEFF - CSD Simulated Time to Established First Flower tool

As we move into mid squaring, CSD has released a Simulated Time to Established First Flower tool (STEFF) which is available as part of its membership. This can be viewed at [www.csd.net.au/steff](http://www.csd.net.au/steff)

Here you can select your region, imbibition date (this is the day of planting if the seed was planted into moisture, or the day of watering up) and the tool will use the local Ambassador and CSD trial information to

predict your first flower. The accuracy of the tool is influenced by season conditions and other external influences such as disease or insect damage and should be used as a guide only.



The screenshot shows a web interface for a simulation tool. At the top, there is a header with the text "SIMULATED TIME TO ESTIMATED FIRST FLOWER" over a background image of soil and small green plants. Below the header is a breadcrumb trail: "HOME > SIMULATED TIME TO ESTIMATED FIRST FLOWER". The main content area contains two input fields: "Select location" with a text box containing "Start typing a town name", and "Imbibation date" with a text box containing "Choose imbibation date:". Below these fields is a green button labeled "Estimate first flower date". To the right of the input fields is a grey box containing the text: "The estimated first flower date will be displayed here." and "Don't forget to choose both a location and imbibation date." At the bottom of the page, there is a small disclaimer: "General guide only, not comprehensive or specific technical advice. Circumstances vary from farm to farm. To the fullest extent permitted by law, CSD expressly disclaims all liability for any loss or damage arising from reliance upon any information, statement or opinion on this website or from any errors or omissions on this website."

## BARRY - Biometric Agronomy for Realising Representative Yield

BARRY - is a new crop modelling tool developed to assist Australian cotton growers and consultants assess the yield potential of their crop at key growth stages:

- First flower
- Flowering progression
- Cut out
- End of season

BARRY has been developed in partnership with CSIRO, utilising the extensive (six year) agronomic database collected from CSD's Ambassador Network and Variety Trial programs and CSIRO's machine learning algorithms to estimate potential yield with reliable accuracy.

BARRY is available to CSD members, and can be accessed by visiting [www.csd.net.au/barry](http://www.csd.net.au/barry).

Not a CSD member? Then you are missing out on some great tools and information. Membership cost \$20/yr. Join [here](#). Australian growers and cotton industry personnel all welcome!

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## Meet your cotton researcher – Eric Koetz, Research Agronomist, Weeds Southern Cropping, NSW Department of Primary Industries, Wagga

**Where are you from?** I grew up on a farm 15 minutes west of Wagga Wagga, went to University in Canberra and worked at CSIRO, Division of Plant Industry for 5 years in farming system projects. I commenced work with NSW DPI in 1996 initially as a Technical Officer in the Pasture group working on drought tolerant perennial pastures and native grasses and Lucerne establishment projects. I had a small career shift into the Wagga Weeds team for 12 years coordinating and supervising IWM projects in the Weed CRC and conducting on farm trials and weed

surveys. I moved into the Pulse team for two years responsible for the pulse agronomy trials in southern NSW before being appointed as a Research officer responsible for the Variety Specific Agronomy program on cereals. After two years in this role I was successful in applying for my current role as a Research Agronomist in cropping weeds. I have been working in the Cotton space for 4 years.

**How have you ended up in cotton research?** Initially appointed to work on Weed projects funded by GRDC an opportunity arose to fill a role in Southern NSW with CRDC as the Technical Lead for Weed Management within the CottonInfo team, working closely with the REO's and the Herbicide Technical Panel.

**What excites you about working in the cotton industry?** The industry is very inclusive, welcomes both new growers and researchers and is a vibrant industry to work in. With new technologies and herbicide tolerance traits being introduced into Australian cotton there is a renewed emphasis on herbicide resistance monitoring and measurement. Being a part of a team that is developing a Herbicide Resistance management Strategy to help the industry develop stewardship packages is a great opportunity. The team of weed researchers are a great bunch to collaborate with.

**What do you like to do when you aren't researching?** I play cricket in the summer and have started playing veterans cricket representing NSW in the Over 50s State and National titles, I coach my youngest of 3 boys and am involved in local Administration. I umpire AFL in the winter to keep fit, go fishing and camping to relax and have a small farm where we run beef cattle and produce a bit of Lucerne hay.

**What's your current research project:** Improved management of weeds in cotton and grains farming systems, funded by CRDC.

**Some background:** While historically the Australian cotton industry has had a strong integrated weed management system, the extensive use of herbicide tolerant (HT) cotton varieties and the spread of weeds across the landscape has seen resistant and hard to control weeds emerge. The need for knowledge of weeds and management tactics

will need to remain a priority, particularly as the industry continues to change, with expansion into new regions and farming systems, particularly rain grown systems and the launch of the third generation of herbicide tolerant traits.

These issues have high significance to the industry, with:

- Glyphosate resistant weeds threatening the sustainability of current farming systems,
- Species shift also threatening the sustainability of current farming systems, with fleabane and feather-top Rhodes grass, for example, very difficult to manage in the current system, especially in summer fallows,
- An ongoing lack of new herbicide solutions to these problems
- Off-target herbicide damage all too common

### **How will industry benefit from this research?**

Underpin and improve the Herbicide Resistance Management Strategy and put in place guidelines and protocols for the stewardship and management of new herbicide tolerance traits in cotton. This is important to prolong the efficacy and use pattern of glyphosate in the Australian cotton farming system. Monitor and identify herbicide resistance and put in place tactics to manage emerging issues.

### **Further information:**

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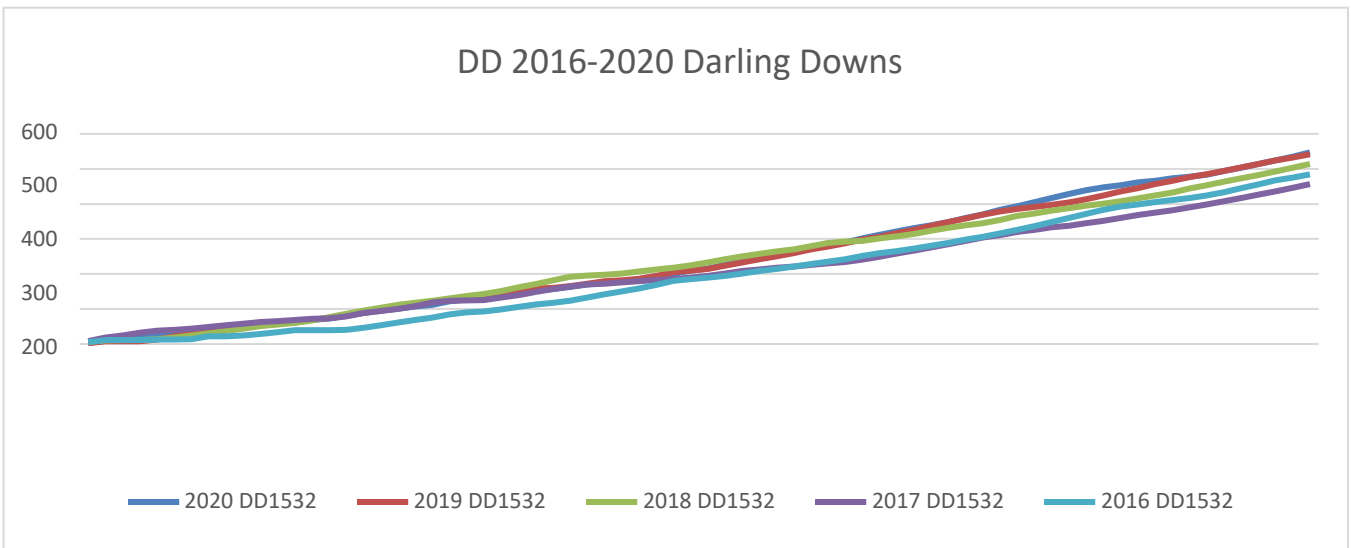
## Soil Your Undies

Over the past few weeks I have been working with local consultant David Hall in the **'Soil your Undies'** space. David has been running soils workshops in the North and they have buried undies as an activity. Below is a photo of some undies that have been dug up from a blueberry orchard in Mundubbera.

Not much left of them!!!!



Seasonal Information based on 10<sup>th</sup> October planting date (Source: [Cotton Seed Distributors](#))





## DALBY AIRPORT

[Download](#)

Date range: 10 October, 2020 to 20 December, 2020 (72 days).

Summary Seasonal comparison

	2020	2019	2018	2017	2016	10 year mean
Base 12	887.5	926.9 ▲	813.3 ▼	750.2 ▼	823.6 ▼	831.3 ▼
DD1532*	546.8	541.4 ▼	514.0 ▼	456.5 ▼	484.2 ▼	511.0 ▼
Cold shock days ( $\leq 11^{\circ}\text{C}$ )	9	13 ▲	4 ▼	10 ▲	14 ▲	8.4 ▼
Days above $36^{\circ}\text{C}$	17	23 ▲	6 ▼	2 ▼	8 ▼	8.9 ▼
Nights above $25^{\circ}\text{C}$	0	0	0	0	0	0.0
Days above $40^{\circ}\text{C}$	4	3 ▼	0 ▼	0 ▼	1 ▼	1.0 ▼
Total rainfall (mm)	110.6	19.4 ▼	292.0 ▲	144.1 ▲	78.0 ▼	111.0 ▲
Total radiation ( $\text{MJ}/\text{m}^2$ )	1612.9	1821.4 ▲	1598.9 ▼	1610.9 ▼	1726.8 ▲	1524.7 ▼
Average temperature ( $^{\circ}\text{C}$ )	24.2	24.5 ▲	23.2 ▼	22.2 ▼	22.9 ▼	23.3 ▼

\* Experimental calculation.

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Climate observations and data are obtained via the State of Queensland GLD patch point dataset.

Finally 2020 has thrown up many challenges with the continued drought, mouse plague, and Covid-19 to name a few. Oh, and I forgot home schooling which some of us didn't really excel at (I quickly remembered why I didn't choose primary education as a vocation). I hope we can all enjoy the festive season and 2021 is a much kinder year to us all.

I look forward to working with you all again next year and we embrace whatever 2021 throws at us.

### Annabel Twine

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