November 2018

Welcome to the second edition of the cotton thread for the 2018/19 season.

**Impending Dates: November 30th**: Final day for entry into the Faststart competition to win a trip for two to Kununurra and Broome. This also the final day for the online CSD Dryland Industry Support Program registration. Crops planted after this date may be eligible and can be registered through your CSD E&D agronomist.

**December 6**: Bug checker Training Workshop. Entry level training for Bug Checkers and junior agronomists on pests in cotton. Presented by Dr Paul Grundy, Senior Research Scientist at Qld Department of Agriculture and Fisheries and technical lead for IPM at CottonInfo. Workshop will be held at Andrew Newell’s property Korolea, Goondiwindi commencing 7:30am. Please contact Andrew McKay at CottonInfo if you are interested in attending.

More details within the newsletter

**Climate update**

Most of the area has seen welcome rainfall since the previous newsletter with some additional plantings now being undertaken. The CottonInfo Moisture manager is reporting an outlook for more rain just prior to Christmas and cooler temperatures over the next 4 weeks. Click here for the most recent edition. To subscribe to the CottonInfo Moisture Manager and other publications go to:


The recent rainfall is seeing more cotton going in – mostly dryland. This brings a whole range of crop development stages for the regions. Cotton growth stage is closely linked to the amount of heat the plant has received as measured by day degrees.

**Day Degree Accumulation**

Following are charts for the Day Degree accumulation since October 1st for the St George and MacIntyre areas with both areas showing more day degrees so far this year compared to last year. This is reflected in the number of Hot days (days with max temp >= 36°C) with both regions above the average and previous year hot days. Following is a table of cotton growth stages based on target day degrees.
**TABLE 1: Cotton growth stages with target DD.**

<table>
<thead>
<tr>
<th>Cotton development</th>
<th>Notes</th>
<th>Accumulated DD after planting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germination</td>
<td>Germination will start as a seed takes in (imbibes) moisture and temperatures are warm enough.</td>
<td>80</td>
</tr>
<tr>
<td>Emergence</td>
<td>The two cotyledons (seed leaves) break the soil surface and unfold.</td>
<td></td>
</tr>
<tr>
<td>Vegetative growth</td>
<td>A cotton plant adds a new node every 42 DD or 2-4 days. This rate will slow as the crop approaches cut-out.</td>
<td></td>
</tr>
<tr>
<td>First square</td>
<td>A square is a flower bud. The first square occurs on the first fruiting branch at approximately 5-7th nodal position above the cotyledons, about 4-6 weeks after emergence. Initiation of the first (pinhead) square normally occurs when the true leaf on node 4-5 is unfurled, and signals the beginning of the reproductive phase.</td>
<td>505</td>
</tr>
<tr>
<td>First flower</td>
<td>The first square will develop into the first flower within 15-20 days (8-10 weeks after emergence). The cotton flower is white, with five petal flowers and normally opens first thing in the morning. The cotton plant is usually self-pollinating and this occurs very shortly after the flower opens. Once fertilised the flower turns reddish purple and then dehisces as the boll begins to develop.</td>
<td>777</td>
</tr>
<tr>
<td>Flowering to max boll size</td>
<td>After the flower petals fall off, a fertilised boll (fruit) is visible. In 20-25 days this boll will reach its maximum boll size. After fertilisation, the boll begins to develop. The boll is divided into 3-5 segments called locks, which contain lint and 6-9 seeds. The number of locks is determined by the time a square has reached a “pinhead” in stb.</td>
<td>1087*</td>
</tr>
<tr>
<td>Open boll</td>
<td>Under optimum conditions it takes about 50 days from flowering to having an open boll.</td>
<td>1527*</td>
</tr>
</tbody>
</table>

*Note that these are estimates for individual bolls and do not represent whole crop development.

Source: Australian Cotton Production manual 2018

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**St George Day Degrees**

- 2018
- 2017
- Average

**MacIntyre Day Degrees**

- 2018
- 2017
- Average

<table>
<thead>
<tr>
<th>Date</th>
<th>2018</th>
<th>2017</th>
<th>Average</th>
<th>Date</th>
<th>2018</th>
<th>2017</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Days</td>
<td>9</td>
<td>1</td>
<td>6.1</td>
<td>Hot Days</td>
<td>6</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Cold Shock</td>
<td>2</td>
<td>2</td>
<td>7.9</td>
<td>Cold Shock</td>
<td>5</td>
<td>4</td>
<td>10.8</td>
</tr>
</tbody>
</table>
Crop Checks

Shortly I will commence regular crop check where feedback from agronomists across the valleys is sort in terms of crop stage, disease, insect/beneficials, weeds, environmental issues and other relevant comments. These will be compiled and a summary sent out. An all regions summary will also be compiled – expected to be monthly at this stage.

Indications so far are that insect pressure is light and general growing conditions reasonable.

Cotton’s early season nitrogen needs: what you should know

With many planting and undertaking early watering, growers are reminded of the need for careful management to avoid the adverse effects of denitrification. The CottonInfo team says research by Jon Baird from the New South Wales DPI found up to 10 per cent of applied nitrogen ‘can be lost in the first irrigation in run-off water after the fertiliser has been applied’. CottonInfo has prepared an article looking at the process and what can be done to reduce the impacts, including the need for cautious management and a thorough assessment of conditions prior to the first irrigation.

https://mailchi.mp/007ad20b5dfb/cottoninfo-e-news-managing-your-crops-early-n-needs?e=4c1d8ff06c

Reminder: new 2,4-D label instructions in effect

With the cotton season underway, growers are reminded that new label instructions for 2,4-D products are in place. The Australian Pesticides and Veterinary Medicines Authority (APVMA) recently introduced the changes to reduce spray drift damage. Old labels are suspended. See details here.

The APVMA says the new instructions include:

- a requirement not to spray in inversion conditions and additional information on recognising inversion conditions
- downwind mandatory no-spray zones for both aquatic and terrestrial off-target vegetation (including sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat)
- a requirement to use nozzles producing droplets no smaller than the Very Coarse spray quality category
- mandatory record-keeping requirements
- advisory statements about spray application over summer

Cotton growers are encouraged to help overcome this problem by:

- Contacting neighbors to let them know your cotton plans for the season
- Mapping cotton fields at www.CottonMap.com.au so that neighbors can be made aware of susceptible cotton crops nearby

Report any incident (or suspected incident) to Cotton Australia:

It is critical that growers report any incident (or suspected incident) as soon as it occurs to your closest Cotton Australia Regional Manager and fill out a Cotton Australia Spray Drift Incident Report. It is critical that incidents are properly logged and investigated, and Cotton Australia has a straightforward process that is simple and confidential.

- NSW: EPA Environment Line: 131 555
- Qld: Biosecurity Queensland: 13 25 23
Pyriproxyfen (Admiral) Windows for 2018/19 season

Industry data from Silverleaf whitefly (SLW) resistance monitoring shows an increase in pyriproxyfen (e.g. Admiral®) resistance. This is a very concerning trend as pyriproxyfen is a cornerstone product for managing SLW populations in Australia, with low impact on beneficial insects.

To reduce the risk of SLW developing widespread pyriproxyfen resistance and potential product failure, Cotton Growers’ Associations have nominated a voluntary 30-day window for each region in which pyriproxyfen can be applied (Table 1).

The aim of narrowing the pyriproxyfen window is to minimise consecutive generations of SLW being exposed to resistance selection and ensure the product is being applied once per season when most effective.

Table 1. CGA-nominated voluntary pyriproxyfen application windows for the 2018-19 season.

<table>
<thead>
<tr>
<th>Cotton Growers’ Association</th>
<th>Open Date</th>
<th>Close Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Highlands CGIA</td>
<td>No window required*</td>
<td></td>
</tr>
<tr>
<td>Darling Downs CGI (Central Downs)</td>
<td>28 January</td>
<td>28 February</td>
</tr>
<tr>
<td>Darling Downs CGI (Chinchilla - Brigalow - Tara)</td>
<td>20 January</td>
<td>20 February</td>
</tr>
<tr>
<td>Darling Downs CGI (Murgon-Byee)</td>
<td>10 February</td>
<td>10 March</td>
</tr>
<tr>
<td>Darling River Food and Fibre</td>
<td>25 January**</td>
<td>25 February**</td>
</tr>
<tr>
<td>Dawson Valley CGA</td>
<td>No window required*</td>
<td></td>
</tr>
<tr>
<td>Dirranbandi CGA</td>
<td>15 January</td>
<td>15 February</td>
</tr>
<tr>
<td>Gwydir Valley CGA</td>
<td>28 January</td>
<td>28 February</td>
</tr>
<tr>
<td>Lower Namoi CGA</td>
<td>15 January</td>
<td>15 February</td>
</tr>
<tr>
<td>Macintyre Valley CGA</td>
<td>20 January</td>
<td>20 February</td>
</tr>
<tr>
<td>Macquarie CGA</td>
<td>1 February</td>
<td>1 March</td>
</tr>
<tr>
<td>Mungindi WUCGA</td>
<td>25 January</td>
<td>25 February</td>
</tr>
<tr>
<td>Southern Valleys CGA</td>
<td>1 February</td>
<td>1 March</td>
</tr>
<tr>
<td>St George CGA</td>
<td>25 January</td>
<td>25 February</td>
</tr>
<tr>
<td>Upper Namoi CGA</td>
<td>25 January</td>
<td>25 February</td>
</tr>
<tr>
<td>Walgett CGA</td>
<td>25 January</td>
<td>25 February</td>
</tr>
</tbody>
</table>

* Resistance monitoring data indicates pyriproxyfen resistance is not currently a concern for this region.

**Window nominated by TIMS Insecticide Technical Panel, where a window was not nominated by the CGA.

Last Chance to enter!!

Win a trip for two to Kununurra and Broome, WA!

As part of the FastStart™ Cotton Program, Cotton Seed Distributors and Syngenta are offering one irrigated and one dryland cotton grower a trip for two people to Kununurra and Broome, including return airfares, six nights accommodation, meals, car hire and more!


myBMP

For growers considering how to adopt and implement “best management practise”, this is an online, self-assessable program in a modular format that can be worked through module by module. Growers can compare practices and measure improvement in a process designed to achieve a more efficient, profitable, safer and environmentally responsible cotton production process. Another benefit is the Monsanto myBMP Bale grant where eligible growers can receive a financial incentive for cotton produced on myBMP-certified farms. See below link for more details.


For those who have already undertaken myBMP certification, the Better Cotton Initiative provides access to premium markets and an opportunity to leverage a premium price for cotton produced under more sustainable growing methods such as those promoted through the myBMP program. See below link for details.


Apply now for new Cotton20 Leadership Program

Are you a grower who wants to develop skills, knowledge and networks to better lead, advocate and influence change across the cotton industry?

If so, you’re encouraged to apply for Cotton Australia’s new mid-high level industry leadership program, Cotton20.

Cotton Australia has secured funds from the Federal Department of Agriculture and Water Resources’ Leadership in Agricultural Industries Fund to assist in the development and delivery of this program.

Key topics of the program will include:

- Governance
- Advocacy
- Industry development
- Strategic thinking and planning
- Leadership
- Communication

A two-level mentoring initiative will be a central part of this program, as will a face-to-face forum and a mix of online and digital learning resources.

Interested growers are encouraged to contact Cotton Australia via email, or phone 0448 094 883 for further information and an application form.

Applications close on Friday 14th December 2018


Queensland growers: we need your help to ensure you have access to affordable electricity

Do you rely on electricity to harvest water or to irrigate?

In about 18 months’ time, there will be big changes to electricity tariffs in Queensland. While for some irrigators these changes may be positive, others are going to face enormous increases in their electricity bills.

To help Cotton Australia negotiate a fairer outcome, Cotton Australia desperately need actual electricity usage
Cotton Australia is asking growers to authorise Ergon to analyse your electricity usage and to share that data with Cotton Australia. Cotton Australia will not share your data with others in any way that will identify individuals, unless we separately and explicitly ask your permission to do so.

This is serious. When we last analysed some irrigators’ bills, we noted some large users were facing bill increases of 200-300% in 2020.

To authorise Ergon to analyse your bill, and share data with Cotton Australia, please complete this form and email it to Cotton Australia’s General Manager, Michael Murray.

When returning the form, please include a few lines in your email providing context on how you use electricity (for example, flood harvesting, supplemented water access, groundwater, overland flow), and how many hectares you may irrigate in a normal year.

If you have any questions, or to discuss the issue, please contact Michael via email, or phone 0427 707 868.

CSD Dryland Industry Support Program

To be eligible please read the program summary and information @ http://csd.net.au/isp note that crops planted up to and including the 30th November must be registered online.

CSD agents typically register on the growers behalf however growers may register if they wish. Any questions please talk with your TSP or CSD E&D Agronomist.

Note: Crops planted in December may be eligible but require registration directly via your E&D Agronomist.

CSD Trials 2018/19

St George

2 x Irrigated Ambassador/Variety trials – they consist of the varieties Sicot 746B3F, Sicot 748B3F, Sicot714B3F and Sicot 754B3F

• One of these trials has Sicot 746B3F with the seed treatment D2C & the new V2C (Vibrance, Bion & Cruiser) for evaluation

No trials located at Dirranbandi this season

From Talwood east through to the other side of North Star:

1 x Irrigated Roundup Ready Flex (Conventional) variety trial consisting of Sicot 711RRF, Sicot 75RRF and Sicot 812RRF

5 x Irrigated Bollgard3 Ambassador/Variety trials

1 x Semi Irrigated single skip Variety trial consisting of Sicot 746B3F, Sicot 748B3F, Sicot714B3F

5 x Dryland Ambassador/Variety trials consisting of Sicot 746B3F, Sicot 748B3F, Sicot714B3F – 2 sites also have Sicot 754B3F

• First dryland planted 17th September – last planted at this stage may be last week of November
• One of these dryland trials is a row configuration trial looking at 60” Solid & 60” Single Skip using 3 varieties and full replicated, located between Tulloona and Croppa Creek
2 x Fusarium Box trials – 8 treatments
1 x Verticillium Box trial – 8 treatments
2 x D2C + V2C seed treatment evaluation trials
1 x Gappiness trial (used to collated data to assist with replant calculator)
3 x Ambassador field sites

### 2017/18 Variety trial results

Results of the variety trials conducted across the MacIntyre, St George and Dirranbandi regions are available on the Cotton Seed Distributors website [http://www.csd.net.au/trials/variety](http://www.csd.net.au/trials/variety).

Across most sites, irrigated and dryland, 74B3F was a consistent high performer. For those interested in non-Bollgard varieties, 711RRF achieved 12.55 b/ha - see the Talwood sites for details.

### Soil Your Undies!!

An initiative to promote awareness and interest in the health of our soils, the “Soil Your Undies” program is simple yet effective experiment growers can conduct to provide an indication of the health of their soils. Details are available at [https://www.cottoninfo.com.au/soilyourundies](https://www.cottoninfo.com.au/soilyourundies).

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**Funding for Irrigators!**

Save energy, water and explore diversification

The Queensland Department of Agriculture and Fisheries invites you to attend workshops for irrigators to hear about available funding, blockchain and adoption of renewable energy.

**ST. GEORGE**

Date — Monday, 3rd December 2018
Time — 5:30pm start
Venue — Australian Hotel, 96/98 St Georges Terrace, St. George, 4487 QLD

**GOONDIWINDI**

Date — Tuesday, 4th December 2018
Time — 5:30pm start
Venue — O’Shea’s Royal Hotel 48 Marshall St
Goondiwindi, 4390 QLD

**TEXAS**

Date — Wednesday, 5th December 2018
Time — 5:30pm start
Venue — Texas Golf Club, Mingoola Road
Texas, 4385 QLD
What’s On

2018

December 3rd
QDAF Irrigator Funding workshop St George

December 4th
QDAF Irrigator Funding workshop Goondiwindi

December 5th
QDAF Irrigator Funding workshop Texas

December 6th
Bug Checker Training workshop: Korolea, Goondiwindi.

2019

February (date TBA):
Grower of the year field-day, Goondiwindi

Andrew McKay
Regional Extension Officer - Border Rivers, St George & Dirranbandi | CottonInfo

M 0407 992 495 | E andrew.mckay@cottoninfo.net.au | W www.cottoninfo.com.au