



Darling Downs

July 2023

Welcome to the July Edition

With most farms undertaking post-harvest management of the crop and pests, it is timely to review some of the key points outlined in the [Australian Cotton Production Manual 2023](#), pages 138-140, and also in the recent [CottonInfo newsletter](#).

- What's new - AquaTill for crop destruction in dryland crops
- Preventing Pest Carryover – pupae bust, control volunteers and alternative hosts (important this year because of high end of season aphid pressure and presence of Cotton Bunchy Top virus), control green bridges
- Using crop rotations and cover crops – disease breaks, weed management
- Managing cotton stubble and residues – important differences for Fusarium and Verticillium management.
- Crop destruction – mulch and root cut, ploughing, “pull, rake and burn” (be aware of nutrient/OM/pathogen movement), slashing

Preparation for next season starts well before you plant the seed

This past season, pest management has been particularly challenging with the increased numbers of aphids in many fields, outbreaks of solenopsis mealybugs on new farms, and silverleaf whitefly making a comeback in some areas. Cotton bunchy top disease (CBT) has also been detected in numerous locations in northern NSW and southern Queensland.

Crop managers now have a critically important responsibility to focus on farm hygiene this winter and prevent a ruinous start to next season by **breaking** the green bridge that would otherwise allow aphids, mealybugs and CBT to survive.

Effective crop destruction coupled with the removal of cotton volunteers, ratoons and weeds from fields and adjacent farm areas is a highly effective defence against pest and disease carry-over.

On farms where mealybug have been detected it is critical that crop destruction is 100% effective, and that weeds and cotton are controlled during the winter months to destroy overwintering populations and thus prevent new infestations next season. Nearly all hot spots of mealybug in cotton are caused by a ratoon or volunteer cotton plant that provided a green bridge for the outbreak. For mealybug control, it is often as simple as breaking the bridge to defeat this pest.

For CBT, the abundance of diseased plants (albeit at low levels) in many crops, will have created a reservoir of this disease within the farming system. Coupled with the recent abundance of aphids, a proportion of which are carrying concerning levels of insecticide resistance, there is now a clear risk for widespread CBT disease and aphid insecticide resistance for the coming season.

Ensuring 100% effective crop destruction and control of ratoons in adjacent field areas is your best defence for not only lowering the viral load within your farming system, but importantly also removing potentially resistant aphid vectors. Aphids reproduce asexually, effectively cloning themselves. This means that once resistance becomes entrenched, it is very difficult to overcome.

Whilst it is not feasible to eliminate all potential hosts within the broader farming landscape, controlling weeds and feral cotton within areas directly adjacent to fields greatly limits the opportunity for crop re-infestation the following season. For CBT disease, earlier crop infection equals greater yield impact. Removing green bridges in the immediate cropping area better avoids early crop infestation.

Listen to the new podcast from Paul Grundy – CottonInfo Tech Lead for IPM, about Crop hygiene and winter clean-up

https://www.buzzsprout.com/1857956/12739124?fbclid=IwAR3vnTowu9sHb6Mdk-57_eNwn8nb1aR3Vjs4maVFub6SlofiZNCIKtFbjOw

Xtendflex Cotton

XtendFlex cotton is the first cotton trait developed to be tolerant to over-the-top applications of glyphosate, dicamba and glufosinate-ammonium herbicides, providing flexibility to manage a wider-spectrum of difficult-to-control and resistant weeds in-crop. There will be a good opportunity to have a look at the XtendFlex varieties coming through the system next season with a permit for 50,000 ha to be grown. A full program of variety trials and ambassador fields are planned for next season. Variety descriptions and CSIRO trial data is provided here by Dr Warwick Stiller, CSIRO Research group Leader, Cotton breeding.

LINE	TRAITS	YIELD (rel. to Sicot 746B3F)		LP	LEN	STR	MIC	VRR	FRR
		Irrigated	Dryland						
CSX1049B3XF		99	106	41.5	1.24	31.6	4.3	92	103
CSX4133B3XF		101	101	44.1	1.23	29.9	4.2	110	125
CSX5439B3XF		99	102	42.5	1.29	30.1	3.9	102	122
CSX3141B3XF	CBT	103	102	43.5	1.26	31.5	4.2	118	139
CSX4389B3XF	OT, CBT	104	103	44.1	1.24	31.0	3.8	121	116

Note: The above trial data is from previous seasons across all sites. More trial data will become available from this season on the [CSD website](#) – to access data other than yield, you will need to be a [CSD member](#).

CSX1049B3XF: New germplasm, normal leaf, Normal density, often relatively compact determinate growth (though not always), has performed consistently well in dryland and sometimes in Southern irrigated. May also have fit in Northern Australia (Note: lower disease rank than other lines)

CSX4133B3XF: Full season, normal leaf, low density, broad adaptation, overall performance similar to Sicot 748B3F.

CSX5438B3XF: Full season, normal leaf, low density, has performed best from the Macquarie north. Need to be aware of the lower micronaire.

CSX3141B3XF: New germplasm, normal leaf, low density, resistant to CBT, has shown broad adaption, appears to have increased resistance to verticillium wilt (but need more data).

CSX4389B3XF: New germplasm, okra leaf, low density, resistant to CBT, broad adaptation but has performed best in high yielding full season sites, appears to have increase verticillium resistance (but need more data), need to be aware of lower micronaire.

Upcoming XtendFlex Cotton Spray Applicator Training Sessions

As part of Bayer's commitment to whole of system stewardship, the spray applicator training will be a requirement for:

- Technology User Agreement (TUA) signers;
- **All on-farm staff responsible for spray applications (including mixing/handling); and**
- **Any spray contractor that applies XtendFlex Cotton System products over-the-top (OTT) of XtendFlex cotton varieties, once approved by the APVMA.**



Each training session covers theory and practical topics. Local courses are listed below. For a full list of course locations and dates, please see the [Bayer website](#). Participants need to register for workshops and can do so from the Bayer website or by clicking [here](#).

CottonInfo Program Manager Takes on New Role

After nine years as Program Manager for the Australian cotton industry's joint extension program – CottonInfo – Warwick Waters will finish in the role at the end of June.

From 1 July he will be taking on a role with CRDC as Innovation Process Advisor, assisting in the initial implementation of the new CRDC Strategic RD&E Plan 2023-28. CRDC will be seeking to appoint an extension specialist to support the CottonInfo team shortly.

More detail can be found on the [CRDC website](#).





We are excited to be heading around Australia to present our Growing Better Series Mastering Cotton Forums!

These events will bring together some of the best minds in the industry to share their knowledge and experience when it comes to mastering cotton management.

Each event will have six speakers who will present for 10mins. There will then be a 5min Q&A session so attendees can gain further insights from the speaker.

Following the six speakers the audience will be split into three groups and rotate around three 15min workshop stations.

At the conclusion of the workshops there will be light refreshments and the opportunity to network and ask our speakers more questions in a relaxed setting.

Each forum starts at 1pm. Speakers/workshops will be completed by 4pm, and we have allowed for one hour of networking meaning we will be all wrapped up by 5pm. RSVP essential.

Location	Time/Dates	Venue
Cecil Plains	1pm, 22nd August	Cecil Plains Golf Club

Dates for the Diary

- Cotton Collective – Toowoomba – 2-3 August
- Growing Better Series – Cecil Plains – 22 August

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