



Information when you need it



the **cotton tale**

June 2023

Picking progress

Progress has slowed after widespread rain recently with an estimated 30 - 40 % picked. Yield reports have been on the low side of expectations at 5 to 8 bales/ha. Below base micronaire is at about 30% of the cotton classed so far.

This is a function of a later than ideal planting time due to very wet cold conditions at the start coupled with below average day degrees for this season (77% of average). We have experienced the most cold shock days (= or < 11⁰ C) in the last ten years, 65, Ave 46. Cold shocks were well above average for November 19, Ave 11.7 and December 11, Ave 4.1.

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.



Best Practice



Variety descriptions and CSIRO trial data is provided here by Dr Warwick Stiller, CSIRO Research group Leader, Cotton breeding.

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.

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.

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.

Upcoming training sessions are listed in the table below. [CLICK HERE TO REGISTER](#)

Monday 28 August, 2023	Condobolin	8.45 am – 2.30 pm
Tuesday 29 August, 2023	Hillston	8.45 am – 2.30 pm
Wednesday 30 August, 2023	Hay	8.45 am – 2.30 pm
Thursday 31 August, 2023	Coleambally	8.45 am – 2.30 pm
Friday 1 September, 2023	Griffith	8.45 am – 2.30 pm
Monday 4 September, 2023	Darlington Point	8.45 am – 2.30 pm
Tuesday 5 September, 2023	Deniliquin	8.45 am – 2.30 pm

Effect of residual herbicides applied at camera spray rates during fallow on the subsequent cotton crop.

Graham Charles, Eric Koetz & Jeff Werth NSW DPI & QDAF. Work supported by CRDC.

Herbicide	Active	Group	Rate
Balance	isoxaflutole	27	100g/ha
Sharpen	safufenacil	14	34g/ha
Starane Advanced	Fluroxypyr	4	900ml/ha
Valor	flumioxazin	14	140g/ha
2,4-D amine	2,4-D amine	4	1.6 L/ha
Voraxor	safufenacil + trifludimoxazin	14	240 ml/ha

All herbicides were applied at 1X, 2X, 4X and 8X rates on 30 Jul 2021.

Cotton planted 7 Oct 2021, Sicot 714B3F.

Seedling damage assessment 3rd November 2021

Herbicide	Plant stand	Plant size
Balance 4X & 8X	Reduced at 8X	Reduced
Sharpen 4X & 8X	Reduced at 8X	Reduced
Starane Advanced 4X & 8X	Reduced	Reduced
Valor – all rates	-	-
2,4-D amine	-	-
Voraxor	Reduced at 2,4,8 X	Reduced

Yield and Maturity

Herbicide	Yield	Maturity
Balance 4X & 8X	Reduced at 8X	delayed
Sharpen 4X & 8X	Reduced at 8X	delayed
Starane 4X & 8X	Reduced at 8X	delayed
Valor – all rates	-	delayed
2,4-D amine	-	-
Voraxor – all rates	Reduced at 2,4,8 X	delayed

Take home message.

Be conservative with residual herbicides, especially at high (camera sprayer) rates. Often when two or more nozzles fire the rates are considerably higher than the already high permit rate.

Be wary of combinations of herbicides, they may have reduced safety margins.

The more herbicides, the more chances for damage. Be aware of potential additive effects when using residuals in summer crop after applying residual herbicides in the winter phase and vice versa. Some interactions can linger longer in the soil. Note that although some chemicals did not show effects in these trials caution with rates and timing of all residuals should be exercised.



Caption : Camera sprayers have increased in popularity with overall big reductions in chemical use in fallow fields. High chemical rates can be applied to individual weeds when a number of nozzles fire. This can have residual chemical carryover effects on the following cotton crop.

The Effect of raking and burning of cotton trash on Verticillium wilt disease inoculum levels.

I have had reports of some growers raking and burning cotton stubble before planting winter crop. I am assuming this practice aims to reduce disease inoculum levels in fields. In 2015 Dr Karen Kirkby and the late Dr Stephen Allen set up two field sites to establish if raking and burning cotton trash/stubble would reduce Verticillium inoculum in the soil. There was no significant difference in propagules per gram of soil (ppg) between the treatments at each of the two farm sites. The *V. dahliae* pathogen is able to survive in finer residue such as petioles, leaves and bracts. Raking the trash only served to spread the pathogen further around the field.

Events coming up

20th July - IREC Irrigation research update, Gem Hotel Griffith



Link to register <https://bit.ly/42IKVWW>

21ST July – Irrigation Insights Conference, Rich River Golf Club Resort Moama

[2023 Irrigation Insights Conference – Irrigated Cropping Council](#)

26-27th July - Crop Consultants Australia Cropping Solutions Seminar, Narrabri

Find out more and register [here](#).

1st -3rd August- Australian Cotton Collective, Toowoomba

[Cotton Australia | Events](#)

1st -3rd August- Weed smart conference, Dubbo

[WeedSmart Week 2023 – Dubbo - WeedSmart](#)

18th August- SVCGA Awards dinner, Bagtown Inn Griffith



<https://www.eventbrite.com.au/e/2023-cotton-growers-awards-night-tickets-662054190907?aff=oddtcreator>

5th -7th September – Australian Cotton Scientists Conference, Toowoomba
[Conference 2023 – Association of Australian Cotton Scientists](#)

14th September – CSD Growing better Mastering Cotton Forum, Griffith
More details to come

Regards Kieran

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