

University of Tennessee

Regional Bt Cotton Traits - Preventative Spray vs. Unsprayed - Madison Co.

Location: West TN Research and Education Center (Jackson)

Variety: See below (planted: 6-5-18)

Appl A 6-5-18 (at planting); Appl B 8-10-18; High clearance sprayer (9.4 GPA, 40 PSI, 8001FF)

Plots: 4 Rows x 35 ft (RCBD, 4 Reps)

Investigators: Stewart, S.Steckel, Williams

Dam. Sq.= Damaged Squares; Dam. Bolls = Damaged bolls; Total Dam. = Total Damage; CEW = bollworm larvae

Description				Damaged sq.	Dam. Bolls	Total Dam.	CEW	Damaged sq.	Dam. Bolls
Pest Stage Majority				Total	Total	Total	Total	Total	Total
Rating Date				8/24/2018	8/24/2018	8/24/2018	8/24/2018	8/28/2018	8/28/2018
Sample Size, Unit				25 Squares	25 Bolls	50 Fruit	50 Fruit	25 Squares	25 Bolls
Trt-Eval Interval				14 DA-B	14 DA-B	14 DA-B	14 DA-B	18 DA-B	18 DA-B
Treatment	Formulation	Rate	Appl						
1 DP 1822 XF Untreated			A	6.25 a	5.50 a	11.75 a	3.25 a	7.75 a	9.25 a
2 DP 1822 XF Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 c	0.50 c	0.50 de	0.25 bc	1.25 bc	1.50 c
3 PHY 333 WRF Untreated			A	2.50 b	2.25 b	4.75 b	1.25 b	4.50 a	3.25 b
4 PHY 333 WRF Prevathon	0.43 lb/gal	20 fl oz/a	A B	1.00 c	0.00 c	1.00 cde	0.75 bc	0.00 d	1.00 cd
5 PHY 330 W3RF Untreated			A	0.00 c	0.25 c	0.25 de	0.00 c	0.75 bcd	0.25 de
6 PHY 330 W3RF Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 c	0.00 c	0.00 e	0.00 c	0.25 cd	0.00 e
7 ST 5122 GLT Untreated			A	1.00 c	1.00 c	2.00 c	0.75 bc	1.50 b	0.75 cde
8 ST 5122 GLT Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 c	0.00 c	0.00 e	0.00 c	0.25 cd	0.00 e
9 ST 5471 GLTP Untreated			A	0.50 c	0.00 c	0.50 cde	0.00 c	0.00 d	0.00 e
10 ST 5471 GLTP Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 c	0.00 c	0.00 e	0.00 c	0.00 d	0.00 e
11 DP 1518 B2XF Untreated			A	1.25 bc	0.50 c	1.75 cd	1.00 bc	1.50 bc	1.25 c
12 DP 1518 B2XF Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 c	0.00 c	0.00 e	0.00 c	0.00 d	0.00 e
13 DP 1835 B3XF Untreated			A	0.25 c	0.00 c	0.25 de	0.00 c	0.00 d	0.00 e
14 DP 1835 B3XF Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 c	0.00 c	0.00 e	0.00 c	0.00 d	0.00 e
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0006	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)

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Continued Regional Bt Cotton Traits - Preventative Spray vs. Unsprayed - Madison Co.

Dam. Sq.= Damaged Squares; Dam. Bolls = Damaged bolls; Total Dam. = Total Damage; CEW = bollworm larvae

Description				Total Dam.	CEW	Total Dam.	CEW	Dam. Bolls	Yield
Pest Stage Majority				Total	Total	Total	Total	Total	Seed Cotton
Rating Date				8/28/2018	8/28/2018	Cumulative	Cumulative	9/5/2018	10/9/2018
Sample Size, Unit				50 Fruit	50 Fruit	100 Fruit	100 Fruit	50 Bolls	(lbs/acre)
Trt-Eval Interval				18 DA-B	18 DA-B			26 DA-B	
Treatment	Formulation	Rate	Appl						
1 DP 1822 XF Untreated			A	17.00 a	5.75 a	28.75 a	9.00 a	18.75 a	1580 g
2 DP 1822 XF Prevathon	0.43 lb/gal	20 fl oz/a	A B	2.75 c	0.75 cd	3.25 c	1.00 cd	3.75 b	2337 f
3 PHY 333 WRF Untreated			A	7.75 b	2.75 b	12.50 b	4.00 b	14.75 a	2721 cde
4 PHY 333 WRF Prevathon	0.43 lb/gal	20 fl oz/a	A B	1.00 de	0.00 d	2.00 cd	0.75 d	0.50 c	3430 a
5 PHY 330 W3RF Untreated			A	1.00 de	0.00 d	1.25 de	0.00 d	0.25 c	3500 a
6 PHY 330 W3RF Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.25 e	0.00 d	0.25 e	0.00 d	0.00 c	3391 a
7 ST 5122 GLT Untreated			A	2.25 cd	0.50 cd	4.25 c	1.25 cd	3.50 b	2607 def
8 ST 5122 GLT Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.25 e	0.25 d	0.25 e	0.25 d	0.25 c	2849 bcd
9 ST 5471 GLTP Untreated			A	0.00 e	0.00 d	0.50 de	0.00 d	0.00 c	2972 bc
10 ST 5471 GLTP Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 e	0.00 d	0.00 e	0.00 d	0.00 c	3058 b
11 DP 1518 B2XF Untreated			A	2.75 cd	1.50 c	4.50 c	2.50 bc	2.75 b	2550 ef
12 DP 1518 B2XF Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 e	0.00 d	0.00 e	0.00 d	0.75 c	2708 cde
13 DP 1835 B3XF Untreated			A	0.00 e	0.00 d	0.25 e	0.00 d	0.25 c	2845 bcd
14 DP 1835 B3XF Prevathon	0.43 lb/gal	20 fl oz/a	A B	0.00 e	0.00 d	0.00 e	0.00 d	0.00 c	2816 b-e
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)

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Seed Cotton (lbs/acre)

