

Evaluation of Topguard for Soybean Rust - Cheminova - 2.

Project Code: 06-ARC-22 Location: Agronomy Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Carbondale IL 62901 USA
Trial Status: Final **Updated:** 10-12-06

Objective:

Enhance the current knowledge of using Topguard for management of Asian soybean rust.

Crop 1: GLXMA soybean **Variety:** FS4646
Planting Method: Seeded **Planting Date:** 5-25-06
Rate: 75 lb/A **Depth:** 1.0 IN
Row Spacing: 30 IN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 24 FT **Reps:** 4
Tillage Type: Reduced-Till **Study Design:** Randomized complete block
Previous Crop, Year: GLXMA, 2005

Soil Name: Stoy **% OM:** 1.8 **pH:** 6.3 **CEC:** 7.1
Texture: Silt loam **Fert. Level:** P1: 55 LB/A, K: 219 LB/A

APPLICATION DESCRIPTION

	A	B
Application Date:	7-31-06	8-22-06
Time of Day:	15:00	9:00
Application Method:	Spray	Spray
Application Timing:	R3	21DA-R3
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	95 F	70 F
% Relative Humidity:	43	63
Wind Velocity, Unit:	4-5 MPH	1-2 MPH
Dew Presence (Y/N):	N	N
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	10	5

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GLXMA R3	GLXMA R5
Height, Unit:	38-40 IN	39-41 IN

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40-50 PSI	40-50 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA

NOTES:

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Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Moisture	Yield	FROEYE	FROEYE	FROEYE	BROSPO	BROSPO
Percent	bu/A	Sever0-9	Sever0-9	Sever0-9	Sever0-9	Sever0-9
10-3-06	10-3-06	8-14-06	8-21-06	9-12-06	8-14-06	8-21-06
		14 DA-A	21 DA-A	21 DA-B	14 DA-A	21 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Moisture	GLXMA Yield	GLXMA FROEYE	GLXMA FROEYE	GLXMA FROEYE	GLXMA BROSPO	GLXMA BROSPO
1	NONTREATED									13.7	67	0.1	0.8	0.8	2.3	1.0
2	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	14.3	60	0.0	0.3		2.5	1.0
3	TOPGUARD	1.04	SC	0.089	lb ai/a	11	fl oz/a	R3	A	13.5	72	0.0	0.5		1.5	1.0
4	TOPGUARD	1.04	SC	0.114	lb ai/a	14	fl oz/a	R3	A	14.1	64	0.0	0.0		2.5	1.0
5	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	14.4	71	0.0	0.1	0.0	2.3	1.0
5	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	21DA-R3	B							
6	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	13.7	62	0.0	0.3		2.5	1.0
6	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	R3	A							
7	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	13.4	65	0.0	0.1		2.3	1.0
7	MANCOZEB 80WP	80	WP	1.0	lb ai/a	20	oz/a	R3	A							
8	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	15.0	63	0.1	0.1		2.0	1.0
8	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A							
9	SPECTRA	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	A	13.6	69	0.0	0.1	0.1	1.8	1.0
9	SPECTRA	3.6	F	0.112	lb ai/a	4	fl oz/a	21DA-R3	B							
LSD (P=.05)										1.60	11.3	0.06	0.52	0.50	1.16	0.00
Replicate F										2.895	1.756	2.687	0.320	1.000	1.000	0.000
Replicate Prob(F)										0.0560	0.1825	0.0691	0.8107	0.4547	0.4098	1.0000
Treatment F										0.984	1.029	1.687	1.970	7.960	0.794	0.000
Treatment Prob(F)										0.4724	0.4421	0.1531	0.0952	0.0205	0.6131	1.0000

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Weed Code												
Crop Code												
Rating Data Type												
Rating Unit												
Rating Date												
Trt-Eval Interval												
								GLXMA	GLXMA	GLXMA	GLXMA	
								Injury	Injury	Injury	Injury	
								Percent	Percent	Percent	Percent	
								8-7-06	8-14-06	8-29-06	9-4-06	
								7 DA-A	14 DA-A	7 DA-B	14 DA-B	

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Injury Percent 8-7-06 7 DA-A	GLXMA Injury Percent 8-14-06 14 DA-A	GLXMA Injury Percent 8-29-06 7 DA-B	GLXMA Injury Percent 9-4-06 14 DA-B
1	NONTREATED									0	0	0	0
2	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0	0	0	0
3	TOPGUARD	1.04	SC	0.089	lb ai/a	11	fl oz/a	R3	A	0	0	0	0
4	TOPGUARD	1.04	SC	0.114	lb ai/a	14	fl oz/a	R3	A	0	0	0	0
5	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0	0	0	0
5	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	21DA-R3	B				
6	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0	0	0	0
6	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	R3	A		0		
7	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0	0	0	0
7	MANCOZEB 80WP	80	WP	1.0	lb ai/a	20	oz/a	R3	A		0		
8	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0	0	0	0
8	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A				
9	SPECTRA	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	A	0	6	3	3
9	SPECTRA	3.6	F	0.112	lb ai/a	4	fl oz/a	21DA-R3	B				
LSD (P=.05)										0.0	1.4	0.6	0.8
Replicate F										0.000	1.108	1.000	1.391
Replicate Prob(F)										1.0000	0.3651	0.4098	0.2696
Treatment F										0.000	17.761	15.000	12.443
Treatment Prob(F)										1.0000	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Cheminova.
2. Ratings: CI 7 + 14 DAT (describe injury), DI/DS at 14 + 21 days after R3 application and 21 days after 21DA-R3 application.
3. Yield.
4. At 14 DAT "no good frog eye in plot". At 21 DAT "septoria about the same in all plots".
5. FROEYE = Frog eye leafspot. BROSPO = Septoria brown spot. Sever0-9 = Severity, rating scale 0-9. DA-A and DA-B = Days after R3 and 21DA-R3 applications, respectively.
6. Stem and pod diseases were not rated.
7. Crop injury consisted of: at 7DA-A none; at 14 DA-A necrotic blotches on upper leaves; at 7 DA-B still necrotic blotches with some chlorosis around the necrosis.
7. Harvested 10-3-06, (2) 30 inch rows by 20 ft.