

Evaluation of Topguard for Soybean Rust - Cheminova - 1.

Project Code: 06-BP-Cheminova Location: Brookport, IL  
Investigator: Bryan Young**Investigator:** Bryan Young, Associate Professor, Southern Illinois University**City State Zip Country:** Brookport IL 62910 USA  
**Trial Status:** Final **Updated:** 11-22-06**Objective:**

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

**Crop 1:** GLXMA soybean **Variety:** FS4646 RR  
**Planting Method:** Seeded **Planting Date:** 6-16-06  
**Rate:** 60 lb/A **Depth:** 1.0 IN  
**Row Spacing:** 30 IN**Plot Width, Unit:** 10 FT **Plot Length, Unit:** 30 FT **Reps:** 4  
**Tillage Type:** Reduced-Till **Study Design:** Randomized complete block  
**Previous Crop, Year:** ZEAMX, 2005**APPLICATION DESCRIPTION**

	<b>A</b>	<b>B</b>
<b>Application Date:</b>	8-16-06	9-6-06
<b>Time of Day:</b>	10:00	10:30
<b>Application Method:</b>	Spray	Spray
<b>Application Timing:</b>	R3	21DA-R3
<b>Applic. Placement:</b>	BROFOL	BROFOL
<b>Air Temp., Unit:</b>	80 F	79 F
<b>% Relative Humidity:</b>	50	41
<b>Wind Velocity, Unit:</b>	2-3 MPH	2-3 MPH
<b>Dew Presence (Y/N):</b>	N	N
<b>Soil Moisture:</b>	NORMAL	NORMAL
<b>% Cloud Cover:</b>	3	3

**CROP STAGE AT EACH APPLICATION**

	<b>A</b>	<b>B</b>
<b>Crop 1 Code, Stage:</b>	GLXMA R3	GLXMA R5
<b>Height, Unit:</b>	24-28 IN	24-28 IN

**APPLICATION EQUIPMENT**

	<b>A</b>	<b>B</b>
<b>Appl. Equipment:</b>	CO2 sprayer	CO2 sprayer
<b>Operating Pressure:</b>	40-50 PSI	40-50 PSI
<b>Nozzle Type:</b>	Flat fan	Flat fan
<b>Nozzle Size:</b>	8002	8002
<b>Boom Length, Unit:</b>	7.5 FT	7.5 FT
<b>Spray Volume, Unit:</b>	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 GLXMA  
 Moisture Test wt. Yield Injury Injury Injury Injury Injury  
 Percent lb/bu bu/A Percent Percent Percent Percent Percent  
 11-4-06 11-4-06 11-4-06 8-23-06 8-30-06 9-6-06 9-13-06 9-20-06  
 7 DA-A 14 DA-A 21 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 Moisture Percent	GLXMA Test wt. lb/bu	GLXMA Yield bu/A	GLXMA Injury Percent 8-23-06	GLXMA Injury Percent 8-30-06	GLXMA Injury Percent 9-6-06	GLXMA Injury Percent 9-13-06	GLXMA Injury Percent 9-20-06
1	NONTREATED									11.7	52.8	33	0	0	0	0	0
2	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	11.7	53.0	35	0	0	0		
3	TOPGUARD	1.04	SC	0.089	lb ai/a	11	fl oz/a	R3	A	11.7	52.7	36	0	0	0		
4	TOPGUARD	1.04	SC	0.114	lb ai/a	14	fl oz/a	R3	A	11.6	52.8	34	0	0	0		
5	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	11.6	53.2	37	0	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	11.7	52.7	36	0	0	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	11.9	53.1	36	0	0	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	11.5	52.9	37	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	11.8	53.0	34	0	0	0	0	0
9	SPECTRA	3.6	F	0.112	lb ai/a	4	fl oz/a	21DA-R3	B								
LSD (P=.05)										0.44	0.70	5.7	0.0	0.0	0.0	0.0	0.0
Replicate F										0.512	0.089	0.808	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)										0.6776	0.9656	0.5018	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F										0.743	0.514	0.499	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)										0.6538	0.8340	0.8450	1.0000	1.0000	1.0000	1.0000	1.0000

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

GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
FROEYE	FROEYE	BROSPO	BROSPO	DOWMIL	DOWMIL
Sever0-9	Sever0-9	Sever0-5	Sever0-5	Sever0-9	Sever0-9
8-30-06	9-6-06	8-30-06	9-6-06	8-30-06	9-6-06
14 DA-A	21 DA-A	14 DA-A	21 DA-A	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 FROEYE	GLXMA FROEYE	GLXMA BROSPO	GLXMA BROSPO	GLXMA DOWMIL	GLXMA DOWMIL
1	NONTREATED									1.0	1.5	0.00	2.00	1.5	1.3
2	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0.3	0.3	0.00	1.00	2.0	1.5
3	TOPGUARD	1.04	SC	0.089	lb ai/a	11	fl oz/a	R3	A	0.3	0.1	0.00	0.50	1.8	1.8
4	TOPGUARD	1.04	SC	0.114	lb ai/a	14	fl oz/a	R3	A	0.1	0.1	0.00	0.25	1.5	1.5
5	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0.1	0.1	0.00	0.50	2.0	1.8
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	0.2	0.7	0.00	0.25	1.8	1.5
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	0.2	0.2	0.00	0.25	1.5	1.8
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	0.1	0.1	0.00	0.00	1.5	1.3
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	0.8	0.8	0.00	1.25	1.5	1.5
9	SPECTRA	3.6	F	0.112	lb ai/a	4	fl oz/a	21DA-R3	B						
LSD (P=.05)										0.24	0.54	0.000	0.848	0.83	0.78
Replicate F										1.986	2.106	0.000	2.849	0.681	10.590
Replicate Prob(F)										0.1429	0.1260	1.0000	0.0587	0.5724	0.0001
Treatment F										15.144	7.054	0.000	4.808	0.574	0.541
Treatment Prob(F)										0.0001	0.0001	1.0000	0.0013	0.7884	0.8140

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Weed Code	GLXMA	GLXMA	GLXMA	GLXMA
Crop Code	SDS	SDS	SDS	SDS
Rating Data Type	% Incid	Sever0-9	% Incid	Sever0-9
Rating Unit	8-30-06	8-30-06	9-6-06	9-6-06
Rating Date	14 DA-A	14 DA-A	21 DA-A	21 DA-A
Trt-Eval Interval				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA SDS 8-30-06 14 DA-A	GLXMA SDS 8-30-06 14 DA-A	GLXMA SDS 9-6-06 21 DA-A	GLXMA SDS 9-6-06 21 DA-A
1	NONTREATED									0	0.0	0	0.0
2	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0	0.0	0	0.0
3	TOPGUARD	1.04	SC	0.089	lb ai/a	11	fl oz/a	R3	A	0	0.0	0	0.0
4	TOPGUARD	1.04	SC	0.114	lb ai/a	14	fl oz/a	R3	A	0	0.0	0	0.0
5	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	A	0	0.0	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	0.0
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	0	0.0	0	0.0
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	0	0.0	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	0.0	0	0.0
9	SPECTRA	3.6	F	0.112	lb ai/a	4	fl oz/a	21DA-R3	B				
LSD (P=.05)										0.0	0.00	0.0	0.00
Replicate F										0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000

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. Blanket application and weed-free.  
Blanket POST application of Sequence (3 pt/A) + Firstrate (0.3 oz/A) + AMS (8.5 lb/100 gal) applied to V2-V3 soybean on 7-11-06.
5. FROEYE = Frog eye leafspot. BROSPO = Septoria brown spot. DOWMIL = downy mildew.  
SDS = Soybean sudden death syndrome. % Incid = Percent incidence.  
Sever0-5 and Sever0-9 = Severity, rating scales of 0-5 and 0-9, respectively.  
DA-A and DA-B = Days after R3 and 21DA-R3 applications, respectively.
6. On 9-27-06 (21 DA-R3) soybean leaves were yellow, thus not able to make final ratings.
7. Harvested 11-4-06, (2) 30 inch rows by 25 ft.