

Preventative versus Curative Strategies with Headline.

Project Code: 06-BP-PrevCur 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:

Determine the benefit of preventative versus curative treatments for soybean rust management.

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

	A	B	C
Application Date:	8-16-06	9-6-06	
Time of Day:	9:30	10:00	Not applied
Application Method:	Spray	Spray	Spray
Application Timing:	R3	18DA-R3	IF_NEEDED
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	79 F	79 F	
% Relative Humidity:	50	41	
Wind Velocity, Unit:	1-2 MPH	2-3 MPH	
Soil Moisture:	NORMAL	NORMAL	
% Cloud Cover:	5	3	

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GLXMA R3	GLXMA R5	GLXMA NA
Height, Unit:	21-26 IN	21-26 IN	NA NA

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40-50 PSI	40-50 PSI	40-50 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	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
 Moisture Test wt. Yield STEPOD GRESTE FROEYE
 Percent lb/bu bu/A Sever0-5 Percent Sever0-9
 11-4-06 11-4-06 11-4-06 10-18-06 10-18-06 9-3-06
 EOS EOS 18 DA-A

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 STEPOD 10-18-06	GLXMA GRESTE Percent 10-18-06	GLXMA FROEYE Sever0-9 9-3-06
1	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A	11.2	53.2	36	1.75	0	0.0
1	ACTIVATOR 90	100	LIQ	0.125	% v/v	1	pt/100 gal	R3	A						
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A	11.3	53.3	40	1.75	0	0.1
2	ACTIVATOR 90	100	LIQ	0.125	% v/v	1	pt/100 gal	R3	A						
2	HEADLINE/CARAMBA (CO-PACK)					9.6	fl oz/a	18DA-R3	B						
2	->HEADLINE	2.09	EC	0.059	lb ai/a			18DA-R3	B						
2	->CARAMBA	0.75	SL	0.035	lb ai/a			18DA-R3	B						
3	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	R3	A	11.5	53.4	34	2.25	0	0.0
3	->HEADLINE	2.09	EC	0.072	lb ai/a			R3	A						
3	->CARAMBA	0.75	SL	0.044	lb ai/a			R3	A						
4	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	R3	A	11.6	53.6	32	1.75	0	0.0
4	->HEADLINE	2.09	EC	0.072	lb ai/a			R3	A						
4	->CARAMBA	0.75	SL	0.044	lb ai/a			R3	A						
4	HEADLINE/CARAMBA (CO-PACK)					9.6	fl oz/a	18DA-R3	B						
4	->HEADLINE	2.09	EC	0.059	lb ai/a			18DA-R3	B						
4	->CARAMBA	0.75	SL	0.035	lb ai/a			18DA-R3	B						
5	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	18DA-R3	B	11.3	53.2	33	2.50	0	1.4
5	->HEADLINE	2.09	EC	0.072	lb ai/a			18DA-R3	B						
5	->CARAMBA	0.75	SL	0.044	lb ai/a			18DA-R3	B						
6	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	IF_NEED	C	11.4	53.2	32	3.75	0	1.1
6	->HEADLINE	2.09	EC	0.072	lb ai/a			IF_NEED	C						
6	->CARAMBA	0.75	SL	0.044	lb ai/a			IF_NEED	C						
7	NONTREATED									11.5	53.1	32	3.75	0	1.4
LSD (P=.05)										0.21	0.73	5.7	0.873	0.0	0.74
Replicate F										2.814	2.582	1.463	1.241	0.000	2.887
Replicate Prob(F)										0.0686	0.0854	0.2580	0.3240	1.0000	0.0641
Treatment F										2.524	0.589	2.313	9.414	0.000	7.704
Treatment Prob(F)										0.0596	0.7348	0.0785	0.0001	1.0000	0.0003

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

GLXMA GLXMA GLXMA GLXMA GLXMA
 BROSPO DOWMIL Injury SDS SDS
 Sever0-5 Sever0-5 Percent % Incid Sever0-9
 9-3-06 9-3-06 9-3-06 9-3-06 9-3-06
 18 DA-A 18 DA-A 18 DA-A 18 DA-A 18 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code					
1	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A	0.00	1.00	0	0	0.0
1	ACTIVATOR 90	100	LIQ	0.125	% v/v	1	pt/100 gal	R3	A					
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A	0.00	1.25	0	0	0.0
2	ACTIVATOR 90	100	LIQ	0.125	% v/v	1	pt/100 gal	R3	A					
2	HEADLINE/CARAMBA (CO-PACK)					9.6	fl oz/a	18DA-R3	B					
2	->HEADLINE	2.09	EC	0.059	lb ai/a			18DA-R3	B					
2	->CARAMBA	0.75	SL	0.035	lb ai/a			18DA-R3	B					
3	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	R3	A	0.50	1.50	0	0	0.3
3	->HEADLINE	2.09	EC	0.072	lb ai/a			R3	A					
3	->CARAMBA	0.75	SL	0.044	lb ai/a			R3	A					
4	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	R3	A	0.50	1.25	0	1	0.5
4	->HEADLINE	2.09	EC	0.072	lb ai/a			R3	A					
4	->CARAMBA	0.75	SL	0.044	lb ai/a			R3	A					
4	HEADLINE/CARAMBA (CO-PACK)					9.6	fl oz/a	18DA-R3	B					
4	->HEADLINE	2.09	EC	0.059	lb ai/a			18DA-R3	B					
4	->CARAMBA	0.75	SL	0.035	lb ai/a			18DA-R3	B					
5	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	18DA-R3	B	2.50	1.00	0	0	0.3
5	->HEADLINE	2.09	EC	0.072	lb ai/a			18DA-R3	B					
5	->CARAMBA	0.75	SL	0.044	lb ai/a			18DA-R3	B					
6	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	IF_NEED	C	2.25	1.00	0	0	0.0
6	->HEADLINE	2.09	EC	0.072	lb ai/a			IF_NEED	C					
6	->CARAMBA	0.75	SL	0.044	lb ai/a			IF_NEED	C					
7	NONTREATED									2.00	1.25	0	0	0.0
LSD (P=.05)										0.912	0.592	0.0	0.6	0.55
Replicate F										2.621	0.825	0.000	0.000	0.000
Replicate Prob(F)										0.0823	0.4971	1.0000	1.0000	1.0000
Treatment F										12.789	0.900	0.000	1.114	1.114
Treatment Prob(F)										0.0001	0.5161	1.0000	0.3926	0.3926

Trial Comments

1. Protocol: BASF.
2. Ratings: CI/DI/DS at 18 + 42 DAT and pre-harvest.
3. Yield.
4. Application codes:
 R3 = Apply at R3 or earlier if rust is a threat.
 18DA-R3 = 18 days after the R3 application.
 IF_NEED = Apply when rust has been identified in the field.
5. 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.
6. 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.
 STEPOD = Stem and pod diseases, consisting of approximately 60% anthracnose and 40% pod and stem blight.
 GRESTE = Green stem.
 DA-A = Days after R3 application. EOS = End of season.
 Ratings at 18 DA-A were 3 days prior to application B.
7. On 9-27-06 (42 DA-A and 21 DA-B) soybean leaves were yellow, thus not able to make final foliar ratings.
8. Harvested 11-4-06, (2) 30 inch rows by 25 ft.