

General Soybean Fungicide Screen - Brookport - 1.

Project Code: 06-BP-FungScrn1 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:** 12-7-06

Objective:

Evaluate various fungicides applied in soybeans disease management and yield enhancement.

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	D
Application Date:	7-24-06	8-16-06	9-6-06	9-6-06
Time of Day:	9:30	9:30	10:30	10:30
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	V5	R3	21DA-R3	R5
Applic. Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	82 F	79 F	77 F	77 F
% Relative Humidity:	52	50	31	31
Wind Velocity, Unit:	1-2 MPH	1-2 MPH	1-3 MPH	1-3 MPH
Dew Presence (Y/N):	N	N	N	N
Soil Moisture:	ABONOR	NORMAL	NORMAL	NORMAL
% Cloud Cover:	5	5	3	3

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	GLXMA V5-V6	GLXMA R3	GLXMA R5	GLXMA R5
Height, Unit:	8-10 IN	21-29 IN	26-33 IN	26-33 IN

APPLICATION EQUIPMENT

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

NOTES:

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GLXMA GLXMA GLXMA GLXMA GLXMA GLXMA
 Moisture Test wt. Yield DEFOLI FROEYE FROEYE
 Percent lb/bu bu/A Percent Sever0-9 Sever0-9
 11-4-06 11-4-06 11-4-06 10-9-06 8-14-06 9-5-06
 21 DA-A 20 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	Moisture Percent	Test wt. lb/bu	Yield bu/A	DEFOLI Percent	FROEYE Sever0-9	FROEYE Sever0-9
1	QUADRIS	2.08	F	0.101	lb ai/a	6.2	fl oz/a	R3	B	11.4	52.6	41	95		0.1
1	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B						
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	B	11.4	52.5	45	88		0.1
2	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B						
3	FOLICUR	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B	11.4	52.6	38	94		0.8
4	DOMARK	1.9	ME	0.074	lb ai/a	5	fl oz/a	R3	B	11.6	52.8	38	94		0.1
5	HEADLINE SBR (CO-PACK)					7.8	fl oz/a	R3	B	11.2	52.3	45	86		0.2
5	->TEBUCONAZOLE	3.6	F	0.087	lb ai/a			R3	B						
5	->HEADLINE	2.09	EC	0.077	lb ai/a			R3	B						
6	STRATEGO	2.08	EC	0.114	lb ai/a	7	fl oz/a	R3	B	11.3	52.6	40	91		0.2
7	QUILT	1.67	F	0.183	lb ai/a	14	fl oz/a	R3	B	11.2	52.5	41	92		0.2
8	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	R3	B	11.2	52.5	41	88		0.1
8	->CARAMBA	0.75	SL	0.044	lb ai/a			R3	B						
8	->HEADLINE	2.09	EC	0.072	lb ai/a			R3	B						
9	CARAMBA	0.75	SL	0.048	lb ai/a	8.2	fl oz/a	R3	B	11.3	52.6	39	96		0.4
10	LAREDO	2	EC	0.109	lb ai/a	7	fl oz/a	R3	B	11.3	52.4	42	96		0.7
11	NONTREATED									11.5	53.0	34	95	0.1	1.6
12	GEM/FOLICUR (CO-PACK)							R3	B						
12	->GEM	25	WG					R3	B						
12	->FOLICUR	3.6	F					R3	B						
13	ECHO 720	6	L	0.94	lb ai/a	20	fl oz/a	V5	A	11.6	52.3	43	93	0.0	0.3
13	MUSCLE	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B						
14	ECHO 720	6	L	0.94	lb ai/a	20	fl oz/a	V5	A	11.6	52.5	34	95	0.1	0.8
14	FOLICUR	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B						
15	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	B	11.4	53.0	35	96		0.0
16	UPPERCUT	3.6	F	0.112	lb ai/a	4	fl oz/a	R5	D	11.5	52.6	33	97		0.8
17	PUNCH	3.06	EC	0.096	lb ai/a	4	fl oz/a	R5	D	11.3	52.8	35	94		2.0
18	UPPERCUT	3.6	F	0.112	lb ai/a	4	fl oz/a	R5	D	11.4	52.3	38	94		1.4
18	HEADLINE	2.09	EC	0.0735	lb ai/a	4.5	fl oz/a	R5	D						
19	LAREDO	2	EC	0.11	lb ai/a	7	fl oz/a	R3	B	11.4	52.9	38	88		0.1
19	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B						
19	LAREDO	2	EC	0.08	lb ai/a	5	fl oz/a	21DA-R3	C						
19	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	21DA-R3	C						
19	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	21DA-R3	C						
20	ENABLE	2	EC	0.11	lb ai/a	7	fl oz/a	R3	B	11.4	53.1	35	88		0.2
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	B						
20	ENABLE	2	EC	0.08	lb ai/a	5	fl oz/a	21DA-R3	C						
20	HEADLINE	2.09	EC	0.1	lb ai/a	6	fl oz/a	21DA-R3	C						
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	21DA-R3	C						
21	QUADRIS	2.08	F	0.089	lb ai/a	5.5	fl oz/a	R3	B	11.4	52.2	42	93		0.1
21	ALTO	0.83	SL	0.026	lb ai/a	4	fl oz/a	R3	B						
21	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	R3	B						
LSD (P=.05)										0.41	0.65	6.4	4.0	0.14	0.77
Replicate F										0.691	0.417	0.646	1.772	0.333	1.304
Replicate Prob(F)										0.5613	0.7417	0.5885	0.1628	0.8076	0.2819
Treatment F										0.589	1.212	2.703	5.142	2.667	4.452
Treatment Prob(F)										0.8987	0.2810	0.0020	0.0001	0.2727	0.0001

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GLXMA GLXMA GLXMA GLXMA
 BROSPO BROSPO DOWMIL DOWMIL
 Sever0-5 Sever0-5 Sever0-5 Sever0-5
 8-14-06 9-5-06 8-14-06 9-5-06
 21 DA-A 20 DA-B 21 DA-A 20 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code				
1	QUADRIS	2.08	F	0.101	lb ai/a	6.2	fl oz/a	R3	B			0.75	2.25
1	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B				
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	B			0.00	2.00
2	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B				
3	FOLICUR	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B			1.00	2.50
4	DOMARK	1.9	ME	0.074	lb ai/a	5	fl oz/a	R3	B			0.50	2.00
5	HEADLINE SBR (CO-PACK)					7.8	fl oz/a	R3	B			0.50	2.50
5	->TEBUCONAZOLE	3.6	F	0.087	lb ai/a			R3	B				
5	->HEADLINE	2.09	EC	0.077	lb ai/a			R3	B				
6	STRATEGO	2.08	EC	0.114	lb ai/a	7	fl oz/a	R3	B			0.25	1.75
7	QUILT	1.67	F	0.183	lb ai/a	14	fl oz/a	R3	B			0.75	3.00
8	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	R3	B			0.25	2.00
8	->CARAMBA	0.75	SL	0.044	lb ai/a			R3	B				
8	->HEADLINE	2.09	EC	0.072	lb ai/a			R3	B				
9	CARAMBA	0.75	SL	0.048	lb ai/a	8.2	fl oz/a	R3	B			1.00	2.25
10	LAREDO	2	EC	0.109	lb ai/a	7	fl oz/a	R3	B			0.75	2.00
11	NONTREATED											1.00	2.25
11												1.50	2.25
12	GEM/FOLICUR (CO-PACK)							R3	B				
12	->GEM	25	WG					R3	B				
12	->FOLICUR	3.6	F					R3	B				
13	ECHO 720	6	L	0.94	lb ai/a	20	fl oz/a	V5	A			1.00	0.75
13	MUSCLE	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B			1.67	3.00
14	ECHO 720	6	L	0.94	lb ai/a	20	fl oz/a	V5	A			1.00	1.25
14	FOLICUR	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B			1.33	2.50
15	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	B			0.25	2.00
16	UPPERCUT	3.6	F	0.112	lb ai/a	4	fl oz/a	R5	D			3.00	1.50
17	PUNCH	3.06	EC	0.096	lb ai/a	4	fl oz/a	R5	D			1.75	2.25
18	UPPERCUT	3.6	F	0.112	lb ai/a	4	fl oz/a	R5	D			2.50	2.25
18	HEADLINE	2.09	EC	0.0735	lb ai/a	4.5	fl oz/a	R5	D				
19	LAREDO	2	EC	0.11	lb ai/a	7	fl oz/a	R3	B			0.75	1.75
19	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B				
19	LAREDO	2	EC	0.08	lb ai/a	5	fl oz/a	21DA-R3	C				
19	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	21DA-R3	C				
19	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	21DA-R3	C				
20	ENABLE	2	EC	0.11	lb ai/a	7	fl oz/a	R3	B			1.00	1.75
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	B				
20	ENABLE	2	EC	0.08	lb ai/a	5	fl oz/a	21DA-R3	C				
20	HEADLINE	2.09	EC	0.1	lb ai/a	6	fl oz/a	21DA-R3	C				
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	21DA-R3	C				
21	QUADRIS	2.08	F	0.089	lb ai/a	5.5	fl oz/a	R3	B			0.50	1.75
21	ALTO	0.83	SL	0.026	lb ai/a	4	fl oz/a	R3	B				
21	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	R3	B				
LSD (P=.05)										0.000	1.133	2.070	0.912
Replicate F										0.000	3.963	0.653	0.831
Replicate Prob(F)										1.0000	0.0123	0.6518	0.4822
Treatment F										0.000	3.994	0.240	1.536
Treatment Prob(F)										1.0000	0.0001	0.8065	0.1080

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GLXMA SDS % Incid 8-14-06 21 DA-A	GLXMA SDS Sever0-9 8-14-06 21 DA-A	GLXMA SDS % Incid 9-5-06 20 DA-B	GLXMA SDS Sever0-9 9-5-06 20 DA-B	GLXMA Injury Percent 8-14-06 21 DA-A	GLXMA Injury Percent 9-5-06 20 DA-B
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA SDS % Incid 8-14-06 21 DA-A	GLXMA SDS Sever0-9 8-14-06 21 DA-A	GLXMA SDS % Incid 9-5-06 20 DA-B	GLXMA SDS Sever0-9 9-5-06 20 DA-B	GLXMA Injury Percent 8-14-06 21 DA-A	GLXMA Injury Percent 9-5-06 20 DA-B
1	QUADRIS	2.08	F	0.101	lb ai/a	6.2	fl oz/a	R3	B			0	0.0		0
1	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B						
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	B			0	0.0		0
2	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B						
3	FOLICUR	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B			0	0.0		0
4	DOMARK	1.9	ME	0.074	lb ai/a	5	fl oz/a	R3	B			0	0.0		0
5	HEADLINE SBR (CO-PACK)					7.8	fl oz/a	R3	B			0	0.0		0
5	->TEBUCONAZOLE	3.6	F	0.087	lb ai/a			R3	B						
5	->HEADLINE	2.09	EC	0.077	lb ai/a			R3	B						
6	STRATEGO	2.08	EC	0.114	lb ai/a	7	fl oz/a	R3	B			0	0.0		0
7	QUILT	1.67	F	0.183	lb ai/a	14	fl oz/a	R3	B			0	0.0		0
8	HEADLINE/CARAMBA (CO-PACK)					11.9	fl oz/a	R3	B			3	0.8		0
8	->CARAMBA	0.75	SL	0.044	lb ai/a			R3	B						
8	->HEADLINE	2.09	EC	0.072	lb ai/a			R3	B						
9	CARAMBA	0.75	SL	0.048	lb ai/a	8.2	fl oz/a	R3	B			3	0.3		0
10	LAREDO	2	EC	0.109	lb ai/a	7	fl oz/a	R3	B			0	0.0		0
11	NONTREATED									0	0.0	0	0.0	0	0
12	GEM/FOLICUR (CO-PACK)							R3	B						
12	->GEM	25	WG					R3	B						
12	->FOLICUR	3.6	F					R3	B						
13	ECHO 720	6	L	0.94	lb ai/a	20	fl oz/a	V5	A	0	0.0	0	0.0	0	0
13	MUSCLE	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B						
14	ECHO 720	6	L	0.94	lb ai/a	20	fl oz/a	V5	A	0	0.0	0	0.0	0	0
14	FOLICUR	3.6	F	0.112	lb ai/a	4	fl oz/a	R3	B						
15	TOPGUARD	1.04	SC	0.057	lb ai/a	7	fl oz/a	R3	B			0	0.0		0
16	UPPERCUT	3.6	F	0.112	lb ai/a	4	fl oz/a	R5	D			0	0.3		0
17	PUNCH	3.06	EC	0.096	lb ai/a	4	fl oz/a	R5	D			0	0.0		0
18	UPPERCUT	3.6	F	0.112	lb ai/a	4	fl oz/a	R5	D			1	0.3		0
18	HEADLINE	2.09	EC	0.0735	lb ai/a	4.5	fl oz/a	R5	D						
19	LAREDO	2	EC	0.11	lb ai/a	7	fl oz/a	R3	B			0	0.0		0
19	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	R3	B						
19	LAREDO	2	EC	0.08	lb ai/a	5	fl oz/a	21DA-R3	C						
19	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	21DA-R3	C						
19	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	21DA-R3	C						
20	ENABLE	2	EC	0.11	lb ai/a	7	fl oz/a	R3	B			0	0.0		0
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	B						
20	ENABLE	2	EC	0.08	lb ai/a	5	fl oz/a	21DA-R3	C						
20	HEADLINE	2.09	EC	0.1	lb ai/a	6	fl oz/a	21DA-R3	C						
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	21DA-R3	C						
21	QUADRIS	2.08	F	0.089	lb ai/a	5.5	fl oz/a	R3	B			0	0.0		0
21	ALTO	0.83	SL	0.026	lb ai/a	4	fl oz/a	R3	B						
21	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	R3	B						
LSD (P=.05)										0.0	0.00	2.3	0.32	0.0	0.0
Replicate F										0.000	0.000	0.944	0.322	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	0.4253	0.8094	1.0000	1.0000
Treatment F										0.000	0.000	1.132	2.593	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	0.3465	0.0029	1.0000	1.0000

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Trial Comments

1. Protocol: BASF, Sipcam, DuPont, Dow AgroSciences.
2. Ratings: CI/DI/DS at 21 + 42 DAT.
3. Assess % defoliation when nontreated plot reaches 80% defoliation.
4. Yield.
5. For trials conducted in soybean rust areas make two sequential applications of the same treatment. The first at R3 and the second 21 days after the first application. Apply the first application earlier than R3 if rust is a threat (should be made preventatively).
6. 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. Treatment 12 was not applied.
7. FROEYE = Frog eye leafspot. BROSPO = Septoria brown spot. DOWMIL = downy mildew. SDS = Soybean sudden death syndrome. DEFOLI = Defoliation. % 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 the V5 and R3 applications, respectively.
8. Ratings on 9-5-06 at 20 DA-B were also 43 DA-A and 1 day prior to C (21DA-R3) and D (R5).
9. On 9-27-06 (42 DA-B, 21 DA-C and 21 DA-D) soybean leaves were yellow, thus not able to make final ratings.
10. Harvested 11-4-06, (2) 30 inch rows by 25 ft.