

## Azoxystrobin Formulation Study - Syngenta.

Project Code: 06-BP-Syngenta 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:** 12-8-06

**Objective:**

Compare Syngenta fungicides to competitive standards for disease management and improving soybean yield or quality.

**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
<b>Application Date:</b>	8-16-06	9-6-06
<b>Time of Day:</b>	10:00	11:00
<b>Application Method:</b>	Spray	Spray
<b>Application Timing:</b>	R3	R5
<b>Applic. Placement:</b>	BROFOL	BROFOL
<b>Air Temp., Unit:</b>	82 F	77 F
<b>% Relative Humidity:</b>	50	31
<b>Wind Velocity, Unit:</b>	2-3 MPH	1-3 MPH
<b>Dew Presence (Y/N):</b>	N	N
<b>Soil Moisture:</b>	NORMAL	NORMAL
<b>% Cloud Cover:</b>	5	3

**CROP STAGE AT EACH APPLICATION**

	A	B
<b>Crop 1 Code, Stage:</b>	GLXMA R3	GLXMA R5
<b>Height, Unit:</b>	26-31 IN	28-34 IN

**APPLICATION EQUIPMENT**

	A	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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GLXMA GLXMA GLXMA GLXMA GLXMA GLXMA GLXMA GLXMA  
 Seed wt. Protein Oil Moisture Test wt. Yield STEPOD GRESTE  
 g\100 Percent Percent Percent lb/bu bu/A Sever0-5 Percent  
 12-4-06 12-5-06 12-5-06 11-4-06 11-4-06 11-4-06 10-18-06 10-18-06  
 EOS EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	Seed wt. 12-4-06	Protein 12-5-06	Oil 12-5-06	Moisture 11-4-06	Test wt. 11-4-06	Yield 11-4-06	STEPOD 10-18-06	GRESTE 10-18-06
1	NONTREATED									14.3	39.1	21.2	13.2	52.9	45	2.75	0
2	QUADRIS	2.08	F	0.065	lb ai/a	4	fl oz/a	R3	A	14.8	38.5	21.7	13.1	53.4	48	2.75	0
2	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
3	QUADRIS	2.08	F	0.081	lb ai/a	5	fl oz/a	R3	A	14.8	38.4	21.8	13.2	53.1	47	2.75	0
3	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
4	QUADRIS	2.08	F	0.089	lb ai/a	5.5	fl oz/a	R3	A	14.9	38.2	21.5	13.1	53.1	51	2.25	0
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
5	QUADRIS	2.08	F	0.0975	lb ai/a	6	fl oz/a	R3	A	14.8	37.9	21.9	13.0	52.4	46	2.50	0
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
6	QUILT	1.67	F	0.183	lb ai/a	14	fl oz/a	R3	A	14.3	38.3	21.6	13.2	52.7	44	2.00	0
6	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
7	A12910	2.34	SC	0.073	lb ai/a	4	fl oz/a	R3	A	14.9	38.6	21.6	13.1	53.2	46	2.75	0
8	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	R3	A	15.2	37.9	21.7	12.9	53.5	49	1.75	0
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
9	HEADLINE	2.09	EC	0.09	lb ai/a	5.5	fl oz/a	R3	A	15.2	37.9	21.7	13.3	52.7	52	1.50	0
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
10	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A	15.4	38.0	21.8	13.1	52.5	48	1.25	0
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
11	BRAVO WEATHER STIK	6	L	0.94	lb ai/a	20	fl oz/a	R3	A	14.6	38.4	21.7	13.1	53.2	47	3.25	0
11	BRAVO WEATHER STIK	6	L	0.94	lb ai/a	20	fl oz/a	R5	B								
12	QUADRIS	2.08	F	0.146	lb ai/a	9	fl oz/a	R3	A	15.0	38.3	21.6	13.2	53.1	47	1.75	0
12	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A								
LSD (P=.05)										0.55	0.89	0.46	0.43	1.40	10.1	1.047	0.0
Replicate F										1.947	0.964	0.282	0.648	1.849	3.201	3.420	0.000
Replicate Prob(F)										0.1419	0.4218	0.8377	0.5901	0.1576	0.0359	0.0284	1.0000
Treatment F										3.320	1.136	1.250	0.344	0.550	0.417	2.892	0.000
Treatment Prob(F)										0.0039	0.3678	0.2963	0.9683	0.8542	0.9378	0.0090	1.0000

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GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
FROEYE	FROEYE	FROEYE	BROSPO	BROSPO	BROSPO
Sever0-9	Sever0-9	Sever0-9	Sever0-5	Sever0-5	Sever0-5
8-30-06	9-13-06	9-20-06	8-30-06	9-13-06	9-20-06
14 DA-A	28 DA-A	14 DA-B	14 DA-A	28 DA-A	14 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code							
1	NONTREATED										2.0	2.3	2.3	0.00	2.50	2.50
2	QUADRIS	2.08	F	0.065	lb ai/a	4	fl oz/a	R3	A		0.2	0.3		0.00	1.00	
2	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
3	QUADRIS	2.08	F	0.081	lb ai/a	5	fl oz/a	R3	A		0.1	0.2		0.00	1.75	
3	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
4	QUADRIS	2.08	F	0.089	lb ai/a	5.5	fl oz/a	R3	A		0.7	0.2		0.00	2.00	
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
5	QUADRIS	2.08	F	0.0975	lb ai/a	6	fl oz/a	R3	A		0.1	0.2		0.00	2.00	
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
6	QUILT	1.67	F	0.183	lb ai/a	14	fl oz/a	R3	A		0.1	0.2		0.00	1.75	
6	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
7	A12910	2.34	SC	0.073	lb ai/a	4	fl oz/a	R3	A		0.1	0.3		0.00	2.50	
8	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	R3	A		0.1	0.1		0.00	1.50	
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
9	HEADLINE	2.09	EC	0.09	lb ai/a	5.5	fl oz/a	R3	A		0.6	0.1		0.00	1.25	
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
10	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A		0.0	0.1		0.00	0.75	
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
11	BRAVO WEATHER STIK	6	L	0.94	lb ai/a	20	fl oz/a	R3	A		1.3	1.8	2.3	0.00	3.00	2.75
11	BRAVO WEATHER STIK	6	L	0.94	lb ai/a	20	fl oz/a	R5	B							
12	QUADRIS	2.08	F	0.146	lb ai/a	9	fl oz/a	R3	A		0.1	0.0		0.00	1.75	
12	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A							
LSD (P=.05)										0.67	0.38	1.30	0.000	1.001	2.387	
Replicate F										3.927	1.102	0.500	0.000	0.622	0.111	
Replicate Prob(F)										0.0168	0.3624	0.7082	1.0000	0.6061	0.9480	
Treatment F										7.085	30.568	0.000	0.000	3.512	0.111	
Treatment Prob(F)										0.0001	0.0001	1.0000	1.0000	0.0025	0.7608	

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GLXMA GLXMA GLXMA GLXMA GLXMA GLXMA  
 DOWMIL DOWMIL DOWMIL Injury Injury Injury  
 Sever0-5 Sever0-5 Sever0-5 Percent Percent Percent  
 8-30-06 9-13-06 9-20-06 8-30-06 9-13-06 9-20-06  
 14 DA-A 28 DA-A 14 DA-B 14 DA-A 28 DA-A 14 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA 8-30-06 14 DA-A	GLXMA 9-13-06 28 DA-A	GLXMA 9-20-06 14 DA-B	GLXMA Injury 8-30-06 14 DA-A	GLXMA Injury 9-13-06 28 DA-A	GLXMA Injury 9-20-06 14 DA-B
1	NONTREATED									1.25	1.50	1.50	0	0	0
2	QUADRIS	2.08 F		0.065 lb ai/a		4 fl oz/a	R3	A		1.00	3.50		0	0	
2	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
3	QUADRIS	2.08 F		0.081 lb ai/a		5 fl oz/a	R3	A		1.25	2.75		0	0	
3	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
4	QUADRIS	2.08 F		0.089 lb ai/a		5.5 fl oz/a	R3	A		1.00	2.50		0	0	
4	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
5	QUADRIS	2.08 F		0.0975 lb ai/a		6 fl oz/a	R3	A		1.00	2.50		0	0	
5	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
6	QUILT	1.67 F		0.183 lb ai/a		14 fl oz/a	R3	A		1.25	2.25		0	0	
6	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
7	A12910	2.34 SC		0.073 lb ai/a		4 fl oz/a	R3	A		1.50	2.50		0	0	
8	HEADLINE	2.09 EC		0.065 lb ai/a		4 fl oz/a	R3	A		1.50	2.25		0	0	
8	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
9	HEADLINE	2.09 EC		0.09 lb ai/a		5.5 fl oz/a	R3	A		1.00	2.50		0	0	
9	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
10	HEADLINE	2.09 EC		0.098 lb ai/a		6 fl oz/a	R3	A		1.00	2.25		0	0	
10	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
11	BRAVO WEATHER STIK	6 L		0.94 lb ai/a		20 fl oz/a	R3	A		1.00	1.50	1.00	0	0	0
11	BRAVO WEATHER STIK	6 L		0.94 lb ai/a		20 fl oz/a	R5	B							
12	QUADRIS	2.08 F		0.146 lb ai/a		9 fl oz/a	R3	A		1.00	2.75		0	0	
12	PRIME OIL COC	100 LIQ		1.0 % v/v		1 % v/v	R3	A							
LSD (P=.05)										0.504	0.889	0.919	0.0	0.0	0.0
Replicate F										0.627	0.201	1.000	0.000	0.000	0.000
Replicate Prob(F)										0.6027	0.8947	0.5000	1.0000	1.0000	1.0000
Treatment F										1.290	3.050	3.000	0.000	0.000	0.000
Treatment Prob(F)										0.2730	0.0064	0.1817	1.0000	1.0000	1.0000

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1	NONTREATED									0	0.0	0	0.0	0	0.0
2	QUADRIS	2.08	F	0.065	lb ai/a	4	fl oz/a	R3	A	0	0.0	0	0.0		
2	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
3	QUADRIS	2.08	F	0.081	lb ai/a	5	fl oz/a	R3	A	0	0.0	0	0.0		
3	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
4	QUADRIS	2.08	F	0.089	lb ai/a	5.5	fl oz/a	R3	A	0	0.0	0	0.0		
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
5	QUADRIS	2.08	F	0.0975	lb ai/a	6	fl oz/a	R3	A	0	0.0	0	0.0		
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
6	QUILT	1.67	F	0.183	lb ai/a	14	fl oz/a	R3	A	0	0.0	0	0.0		
6	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
7	A12910	2.34	SC	0.073	lb ai/a	4	fl oz/a	R3	A	0	0.0	0	0.0		
8	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	R3	A	0	0.0	0	0.0		
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
9	HEADLINE	2.09	EC	0.09	lb ai/a	5.5	fl oz/a	R3	A	0	0.0	0	0.0		
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
10	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R3	A	0	0.0	0	0.0		
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
11	BRAVO WEATHER STIK	6	L	0.94	lb ai/a	20	fl oz/a	R3	A	0	0.0	0	0.0	0	0.0
11	BRAVO WEATHER STIK	6	L	0.94	lb ai/a	20	fl oz/a	R5	B						
12	QUADRIS	2.08	F	0.146	lb ai/a	9	fl oz/a	R3	A	0	0.0	0	0.0		
12	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	R3	A						
LSD (P=.05)										0.0	0.00	0.0	0.00	0.0	0.00
Replicate F										0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Trial Comments

1. Protocol: Syngenta.
2. Ratings: CI 14 DAT (describe symptoms + location on old or new growth), DI/DS at 14 + 28 DAT and pre-harvest, rate % green stem at harvest.
3. Yield.
4. Send 1.5 lb samples from each plot for analysis.
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. BROSP0 = 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.
7. DA-A = Days after the R3 application. DA-B = Days after the R5 application. EOS = End of season.
8. Ratings on 8-30-06 at 14 DA-A were 7 days prior to B.  
 Ratings on 9-13-06 at 28 DA-A were also 7 DA-B.  
 Ratings on 9-20-06 at 14 DA-B were also 35 DA-A.
9. On 9-26-06 (41 DA-A and 20 DA-B) soybean leaves were yellow, thus not able to make final foliar ratings.
10. Harvested 11-4-06, (2) 30 inch rows by 25 ft.