

BASF Soybean Demonstration.

Trial ID: 11-1-W140

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Belleville IL 62221 USA
 Trial Status: FINAL Initiation Date: 5-9-11

Objectives: Generate yield data to support BASF's
 "Get the Most Out of Every Acre" strategy.

Crop 1: GLXMA Soybean Variety: AG 4005 Description: RR
 Planting Method: SEEDED Planting Date: 5-23-11
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: SETFA Setaria faberi Herrm. foxtail, giant
 Pest 2 Type: W Code: ERICA Conyza canadensis (L.) Crong. horseweed
 Pest 3 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant
 Pest 4 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common

Plot Width, Unit: 15 FT Site Type: FIELD
 Plot Length, Unit: 55 FT Tillage Type: NO-TILL
 Replications: 6 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2010

Field Prep./Maintenance: N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A

% OM: 1.5 Texture: SILT LOAM
 pH: 6.4 Soil Name: WINFIELD
 CEC: 6 Fert. Level: P1: 72 LB/A, K: 313 LB/A

Application Description

	A	B	C	D
Application Date:	5-9-11	5-13-11	6-20-11	7-29-11
Time of Day:	8:00	10:00	18:30	7:30
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	7-10DBP	3-5DBP	3-5"W	R3
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RFK	RFK	CME	CME
Air Temperature, Unit:	73 F	69 F	84 F	81 F
% Relative Humidity:	87	76	72	85
Wind Velocity, Unit:	3 MPH	3 MPH	6 MPH	2 MPH
Wind Direction:	SE	SW	S	SW
Dew Presence (Y/N):	N	N	N	N
Soil Temperature, Unit:	66 F	69 F	77 F	83 F
Soil Moisture:	ABONOR	ABONOR	ABONOR	NORMAL
% Cloud Cover:	0	100	0	0

9-5-11 13-5-11 20-6-11 29-7-11
 Crop stage at application: NA NA V2-V3 R3
 Height Min, Max (inch): 4 6 24 26

Pest Stage At Each Application

	5-9-11	5-13-11	6-20-11	7-29-11
Application Date:	5-9-11	5-13-11	6-20-11	7-29-11
Weed Code:	SETFA	SETFA	SETFA	SETFA
Stage Majority (leaves):	NA	NA	5	NA
Stage Min, Max:			3 15	
Height Majority:			9 IN	
Height Min, Max:			3 16	
Density, Unit:			0.5 FT2	
Weed Code:	ERICA	ERICA	ERICA	ERICA
Stage Majority (leaves):	10+	10+	30	NA
Stage Min, Max:	10 10+	10 10+	10 60	
Height Majority:	6 IN	6 IN	15 IN	
Height Min, Max:	4 8	4 8	4 34	
Density, Unit:	0.1 FT2	0.1 FT2	0.5 FT2	
Weed Code:	AMBTR	AMBTR	AMBTR	AMBTR
Stage Majority (leaves):	6	6	10	NA
Stage Min, Max:	5 6	5 6	4 12	
Height Majority:	4 IN	4 IN	24 IN	
Height Min, Max:	2 6	2 6	12 30	
Density, Unit:	0.1 FT2	0.1 FT2	3 FT2	
Weed Code:	AMATA	AMATA	AMATA	AMATA
Stage Majority (leaves):	NA	NA	6	NA
Stage Min, Max:			coty 8	
Height Majority:			4 IN	
Height Min, Max:			0.5 6	
Density, Unit:			0.1 FT2	

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Application Equipment

Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

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Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval	DISEASE DISEASE						
							GLXMA 10-11-11 Moisture Percent	GLXMA 10-11-11 Yield bu/A	GLXMA 6-20-11 Injury Percent 38 DA-B 0 DA-C	GLXMA 7-11-11 Injury Percent 21 DA-C	GLXMA 8-19-11 Injury Percent 21 DA-D	GLXMA 8-19-11 Incidence Percent 21 DA-D	GLXMA 8-19-11 Severity Percent 21 DA-D

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
1	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C	11.8 a	51 b	0 a	0 a	0 a	0 a	0 a
1	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C							
1	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C							
2	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7-10DBP	A	11.7 b	53 ab	0 a	0 a	0 a	0 a	0 a
2	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	7-10DBP	A							
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	7-10DBP	A							
2	AMS	100	SG	2.0	% w/w	17	lb/100 gal	7-10DBP	A							
2	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C							
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C							
2	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C							
3	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	11.6 b	56 ab	0 a	0 a	0 a	0 a	0 a
3	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B							
3	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B							
3	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B							
3	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B							
3	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C							
3	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C							
3	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C							
4	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	11.7 ab	60 a	0 a	0 a	0 a	0 a	0 a
4	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B							
4	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B							
4	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B							
4	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B							
4	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C							
4	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C							
4	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C							
4	PRIAXOR	4.17	SC	0.13	lb ai/a	4	fl oz/a	R3	D							
4	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	R3	D							
5	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	11.7 ab	59 a	0 a	0 a	0 a	0 a	0 a
5	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B							
5	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B							
5	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B							
5	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B							
5	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C							
5	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C							
5	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C							
5	PRIAXOR	4.17	SC	0.13	lb ai/a	4	fl oz/a	R3	D							
5	FASTAC	0.83	EC	0.026	lb ai/a	4	fl oz/a	R3	D							
5	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	R3	D							

LSD (P=.05)		0.18	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Replicate F		2.157	1.039	0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)		0.1001	0.4223	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F		2.307	2.169	0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)		0.0936	0.1096	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter do not significantly differ (P=.05, LSD)

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										SETFA	SETFA	ERICA	ERICA	AMBTR	AMBTR
										6-20-11	7-11-11	6-20-11	7-11-11	6-20-11	7-11-11
										Control	Control	Control	Control	Control	Control
										Percent	Percent	Percent	Percent	Percent	Percent
										38 DA-B	21 DA-C	38 DA-B	21 DA-C	38 DA-B	21 DA-C
										0 DA-C	21 DA-C	0 DA-C	21 DA-C	0 DA-C	21 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C	0 c	97 a	0 c	94 b	0 c	95 b
1	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C						
1	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C						
2	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7-10DBP	A	55 b	97 a	97 b	99 a	91 b	98 a
2	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	7-10DBP	A						
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	7-10DBP	A						
2	AMS	100	SG	2.0	% w/w	17	lb/100 gal	7-10DBP	A						
2	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C						
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C						
2	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C						
3	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	98 a	98 a	99 a	99 a	97 a	98 a
3	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B						
3	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B						
3	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B						
3	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B						
3	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C						
3	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C						
3	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C						
4	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	97 a	97 a	99 a	99 a	97 a	98 a
4	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B						
4	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B						
4	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B						
4	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B						
4	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C						
4	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C						
4	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C						
4	PRIAXOR	4.17	SC	0.13	lb ai/a	4	fl oz/a	R3	D						
4	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	R3	D						
5	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	97 a	97 a	99 a	99 a	96 a	99 a
5	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B						
5	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B						
5	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B						
5	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B						
5	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C						
5	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C						
5	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C						
5	PRIAXOR	4.17	SC	0.13	lb ai/a	4	fl oz/a	R3	D						
5	FASTAC	0.83	EC	0.026	lb ai/a	4	fl oz/a	R3	D						
5	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	R3	D						
LSD (P=.05)										7.5	0.7	0.7	1.7	2.0	2.3
Replicate F										0.738	1.914	1.000	1.088	0.729	2.284
Replicate Prob(F)										0.6041	0.1369	0.4430	0.3972	0.6099	0.0852
Treatment F										286.096	0.806	32935.285	16.444	4028.153	4.754
Treatment Prob(F)										0.0001	0.5355	0.0001	0.0001	0.0001	0.0074

Means followed by same letter do not significantly differ (P=.05, LSD)

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Pest Code	AMATA	AMATA
Crop Code		
Rating Date	6-20-11	7-11-11
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Timing	38 DA-B	
Trt-Eval Interval	0 DA-C	21 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C	0	c
1	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C		97
1	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C		b
2	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7-10DBP	A	0	c
2	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	7-10DBP	A		97
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	7-10DBP	A		b
2	AMS	100	SG	2.0	% w/w	17	lb/100 gal	7-10DBP	A		
2	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C		
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C		
2	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C		
3	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	99	a
3	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B		99
3	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B		a
3	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B		
3	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B		
3	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C		
3	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C		
3	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C		
4	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	99	b
4	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B		99
4	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B		a
4	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B		
4	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B		
4	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C		
4	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C		
4	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C		
4	PRIAXOR	4.17	SC	0.13	lb ai/a	4	fl oz/a	R3	D		
4	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	R3	D		
5	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5DBP	B	99	a
5	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	3-5DBP	B		99
5	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	3-5DBP	B		a
5	MSO (MSO CONC)	100	SL	1	% v/v	1	% v/v	3-5DBP	B		
5	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5DBP	B		
5	ROUNDUP WEATHERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	3-5"W	C		
5	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-5"W	C		
5	AMS	100	SG	2.0	% w/w	17	lb/100 gal	3-5"W	C		
5	PRIAXOR	4.17	SC	0.13	lb ai/a	4	fl oz/a	R3	D		
5	FASTAC	0.83	EC	0.026	lb ai/a	4	fl oz/a	R3	D		
5	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	R3	D		

LSD (P=.05)	0.5	1.0
Replicate F	1.000	1.947
Replicate Prob(F)	0.4430	0.1311
Treatment F	125590.723	6.526
Treatment Prob(F)	0.0001	0.0016

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: BASF (D9F).
2. Ratings CI/WC at 0 and 21-28 DA-C; disease control at 14-21 DA-D.
3. Application C is based on weed size in treatments 3-5.
4. Yield, trim to 45 ft plot length at harvest (5 ft from front and back).
Grain yield and moisture for center 2 rows.
5. Crop destruct; treatments 4 and 5, destroy grain after harvest.
6. Mix size and mix amounts are for 2 reps, mix 3 bottles for each treatment.
7. For weeds sizes at application C (3-5"W in treatments 3-5), SETFA, ERICA and AMBTR sizes were from treatment 1 (POST only).

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8. On 8-19-11 at 21 DA-D there were no disease symptoms observable for SDS or frogeye leafspot.
9. Harvested 10-11-11, (2) 30 inch rows by 25 ft.