

Southern Illinois University

Anthem Preemergence and Postemergence in Soybean - Site 1.

Trial ID: 12-DSO-AnthemSB
 Location: De Soto, IL

Investigator: Bryan Young

General Trial Information	
Study Director: Bryan Young	Title: Professor
Investigator: Bryan Young	
Trial Status: F - one-year/final	
Initiation Date: 4-29-12	
Trial Location	
City: De Soto	
State/Prov.: IL	
Postal Code: 62924	
Country: USA	

Objectives: Evaluate glyphosate-resistant waterhemp control from Anthem compared to competitive standards.
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Personnel	
Study Director: Bryan Young	Title: Professor
Investigator: Bryan Young	
Affiliation: Southern Illinois University	
Address: 1205 Lincoln Drive - AG 176 - MC 4415	
Location: Carbondale IL	
Postal Code: 62901	E-mail: bgyoung@siu.edu
Phone No.: 618-453-7679	Mobile No.: 618-713-6471

Crop Description	
Crop 1: GLXMA Glycine max Soybean	Description: RR2Y
Variety: AG3832	Planting Date: 4-29-12
BBCH Scale: BSOY	Rate, Unit: 155000 S/A
Planting Method: SEEDED Seeded	
Depth, Unit: 2 IN	
Row Spacing, Unit: 30 IN	

Pest Description	
Pest 1 Type: W Code: AMATA - Amaranthus rudis Sauer	
Common Name: waterhemp, common	
Description: glyphosate-resistant waterhemp	

Site and Design	
Plot Width, Unit: 10 FT	Site Type: FIELD field
Plot Length, Unit: 30 FT	
Plot Area, Unit: 300 FT2	Tillage Type: NOTILL no-till
Replications: 3	Study Design: RACOB L Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2011

Maintenance	
No.	Maintenance Treatment Name
1.	N 27 LB/A, P205 69 LB/A, K20 90 LB/A

Soil Description		
% Sand: 14	% OM: 2.12	
% Silt: 67	pH: 6.9	
% Clay: 19	CEC: 12.7	
Texture: SIL SILT LOAM		
Soil Name: OKAW		
Additional Measured Elements		
Element	Quantity	Unit
P1	112	LB/A
K	386	LB/A

Moisture and Weather Conditions	
Overall Moisture Conditions: BELNOR below normal	
Closest Weather Station: SOUTHERN IL AIRPORT (93810)	Distance, Unit: 1.5 MI

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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-10-12					7	DAY	30.1	79.2	F
2.	4-13-12	0.22	IN	RAIN	rain					
3.	4-15-12	0.47	IN	RAIN	rain					
4.	4-16-12	0.29	IN	RAIN	rain					
5.	4-17-12					7	DAY	36.7	75.6	F
6.	4-20-12	0.13	IN	RAIN	rain					
7.	4-22-12	0.13	IN	RAIN	rain					
8.	4-24-12					7	DAY	43.7	80.9	F
9.	4-27-12	0.04	IN	RAIN	rain					
10.	4-30-12	0.55	IN	RAIN	rain					
11.	5-1-12					7	DAY	59.1	91.3	F
12.	5-6-12	0.14	IN	RAIN	rain					
13.	5-7-12	0.07	IN	RAIN	rain					
14.	5-8-12					7	DAY	43.3	79	F
15.	5-15-12					7	DAY	44.9	89.1	F
16.	5-20-12	0.93	IN	RAIN	rain					
17.	5-22-12					7	DAY	45.5	92.8	F
18.	5-29-12					7	DAY	46.3	89.8	F
19.	5-30-12	0.02	IN	RAIN	rain					
20.	5-31-12	0.14	IN	RAIN	rain					
21.	6-4-12	0.49	IN	RAIN	rain					
22.	6-5-12					7	DAY	48.5	88.8	F
23.	6-11-12	0.21	IN	RAIN	rain					
24.	6-12-12					7	DAY	49.8	91.1	F
25.	6-17-12	0.03	IN	RAIN	rain					
26.	6-19-12					7	DAY	55.4	96.4	F
27.	6-26-12					7	DAY	51.1	105.4	F
28.	7-3-12					7	DAY	71.1	105	F
29.	7-8-12	0.07	IN	RAIN	rain					
30.	7-9-12	0.12	IN	RAIN	rain					
31.	7-10-12					7	DAY	65.9	93.9	F
32.	7-14-12	0.02	IN	RAIN	rain					
33.	7-17-12					7	DAY	60	102.3	F
34.	7-17-12	0.03	IN	RAIN	rain					
35.	7-24-12					7	DAY	64.1	102.1	F
36.	7-26-12	1.41	IN	RAIN	rain					
37.	7-29-12	0.24	IN	RAIN	rain					
38.	7-31-12					7	DAY	62.7	97.9	F
39.	8-2-12	0.08	IN	RAIN	rain					
40.	8-4-12	3.29	IN	RAIN	rain					
41.	8-5-12	0.21	IN	RAIN	rain					
42.	8-7-12					7	DAY	54.1	97.2	F

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Application Description			
	A	B	C
Application Date:	4-29-12	5-20-12	
Time of Day:	14:30	9:00	
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	EPOST	POST-IN
Application Placement:	BROFOL	BROFOL	NOT
Applied By:	JRK	JRK	APPLIED
Air Temperature, Unit:	82 F	82 F	
% Relative Humidity:	52	64	
Wind Velocity, Unit:	2 MPH	4 MPH	
Wind Direction:	N	W	
Dew Presence (Y/N):	N no	N no	
Soil Temperature, Unit:	71 F	71 F	
Soil Moisture:	NORMAL	BELNOR	
% Cloud Cover:	100	0	
Next Rain Occurred On:	4-30-12	5-20-12	

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	
Stage Majority, Percent:	NA	V2	
Stage Minimum, Percent:		V1	
Stage Maximum, Percent:		V2	
Height, Unit:		5 IN	
Height Minimum, Maximum:		3 5	

Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale:	AMATA W DESC	AMATA W DESC	AMATA W DESC
Stage Majority, Percent:	NA	4	
Stage Minimum, Percent:		Coty	
Stage Maximum, Percent:		6	
Height, Unit:		2 IN	
Height Minimum, Maximum:		0.5 4	
Density, Unit:		0.5 FT2	

Application Equipment			
	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Boom Length, Unit:	6.67 FT	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

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Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

Investigator: Bryan Young

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							GLXMA 10-10-12 Yield bu/A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	AUTHORITY FIRST SELECT COC (PRIME OIL)	70 2 100	WG EC SL	0.28 lb ai/a 0.125 lb ai/a 1 % v/v	6.4 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	30 a
2	AUTHORITY XL SELECT COC (PRIME OIL)	70 2 100	WG EC SL	0.284 lb ai/a 0.125 lb ai/a 1 % v/v	6.5 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	28 a
3	VALOR XLT SELECT COC (PRIME OIL)	40.3 2 100	WG EC SL	0.126 lb ai/a 0.125 lb ai/a 1 % v/v	5.0 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	31 a
4	FIERCE SELECT COC (PRIME OIL)	76 2 100	WG EC SL	0.143 lb ai/a 0.125 lb ai/a 1 % v/v	3 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	27 a
5	PREFIX SELECT COC (PRIME OIL)	5.29 2 100	EC EC SL	1.32 lb ai/a 0.125 lb ai/a 1 % v/v	2 pt/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	22 a
6	OPTILL SELECT COC (PRIME OIL)	68 2 100	WG EC SL	0.085 lb ai/a 0.125 lb ai/a 1 % v/v	2 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	26 a
7	AUTHORITY XL ANTHEM ROUNDUP POWERMAX N-PAK AMS	70 2.15 4.5 100	WG SE SL SL	0.175 lb ai/a 0.101 lb ai/a 0.77 lb ae/a 2.5 % v/v	4 oz/a 6 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A B B B	30 a
8	ANTHEM ROUNDUP POWERMAX N-PAK AMS	2.15 4.5 100	SE SL SL	0.118 lb ai/a 0.77 lb ae/a 2.5 % v/v	7 fl oz/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B	27 a
9	PREFIX ROUNDUP POWERMAX N-PAK AMS	5.29 4.5 100	EC SL SL	1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v	2 pt/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B	27 a
10	FLEXSTAR GT 3.5 N-PAK AMS	2.82 100	SL SL	1.23 lb ae/a 2.5 % v/v	3.5 pt/a 2.5 % v/v		EPOST EPOST	B B	27 a
11	EXTREME N-PAK AMS	2.17 100	SL SL	0.81 lb ai/a 2.5 % v/v	3 pt/a 2.5 % v/v		EPOST EPOST	B B	27 a
12	WARRANT ROUNDUP POWERMAX N-PAK AMS	3 4.5 100	CS SL SL	1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v	3 pt/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B	29 a
13	AUTHORITY XL PREFIX ROUNDUP POWERMAX N-PAK AMS	70 5.29 4.5 100	WG EC SL SL	0.175 lb ai/a 1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v	4 oz/a 2 pt/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A B B B	31 a

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

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Pest Code											GLXMA
Crop Code											10-10-12
Rating Date											Yield
Rating Type											bu/A
Rating Unit											
Rating Timing											
Trt-Eval Interval											
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Other Rate	Other Rate	Growth Unit	Stage	Appl Code	
14	NONTREATED										20 a
LSD (P=.05)											8.2
Standard Deviation											4.9
CV											17.96
Replicate F											4.087
Replicate Prob(F)											0.0286
Treatment F											1.193
Treatment Prob(F)											0.3375

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Pest Code		Crop Code		Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	GLXMA 5-18-12 Injury Percent 14 DAE 19 DA-A	GLXMA 5-27-12 Injury Percent 7 DA-B	GLXMA 5-29-12 Injury Percent 30 DA-A	GLXMA 6-3-12 Injury Percent 30 DAE	GLXMA 6-10-12 Injury Percent 21 DA-B	GLXMA 6-19-12 Injury Percent 30 DA-B	GLXMA 6-28-12 Injury Percent 60 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	AUTHORITY FIRST SELECT COC (PRIME OIL)	70 WG 2 EC 100 SL		0.28 lb ai/a 0.125 lb ai/a 1 % v/v	ai/a	6.4 oz/a 8 fl oz/a 1 % v/v	oz/a	PRE POST-IN POST-IN	A C C	0 a	0 e	0 c	0 d	0 c	0 a
2	AUTHORITY XL SELECT COC (PRIME OIL)	70 WG 2 EC 100 SL		0.284 lb ai/a 0.125 lb ai/a 1 % v/v	ai/a	6.5 oz/a 8 fl oz/a 1 % v/v	oz/a	PRE POST-IN POST-IN	A C C	0 a	0 e	0 c	0 d	0 c	0 a
3	VALOR XLT SELECT COC (PRIME OIL)	40.3 WG 2 EC 100 SL		0.126 lb ai/a 0.125 lb ai/a 1 % v/v	ai/a	5.0 oz/a 8 fl oz/a 1 % v/v	oz/a	PRE POST-IN POST-IN	A C C	0 a	0 e	0 c	0 d	0 c	0 a
4	FIERCE SELECT COC (PRIME OIL)	76 WG 2 EC 100 SL		0.143 lb ai/a 0.125 lb ai/a 1 % v/v	ai/a	3 oz/a 8 fl oz/a 1 % v/v	oz/a	PRE POST-IN POST-IN	A C C	0 a	0 e	0 c	0 d	0 c	0 a
5	PREFIX SELECT COC (PRIME OIL)	5.29 EC 2 EC 100 SL		1.32 lb ai/a 0.125 lb ai/a 1 % v/v	ai/a	2 pt/a 8 fl oz/a 1 % v/v	pt/a	PRE POST-IN POST-IN	A C C	0 a	0 e	0 c	0 d	0 c	0 a
6	OPTILL SELECT COC (PRIME OIL)	68 WG 2 EC 100 SL		0.085 lb ai/a 0.125 lb ai/a 1 % v/v	ai/a	2 oz/a 8 fl oz/a 1 % v/v	oz/a	PRE POST-IN POST-IN	A C C	0 a	0 e	0 c	0 d	0 c	0 a
7	AUTHORITY XL ANTHEM ROUNDUP POWERMAX N-PAK AMS	70 WG 2.15 SE 4.5 SL 100 SL		0.175 lb ai/a 0.101 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a	4 oz/a 6 fl oz/a 22 fl oz/a 2.5 % v/v	oz/a	PRE EPOST EPOST EPOST	A B B B	0 a	9 b	9 b	11 ab	4 b	0 a
8	ANTHEM ROUNDUP POWERMAX N-PAK AMS	2.15 SE 4.5 SL 100 SL		0.118 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a	7 fl oz/a 22 fl oz/a 2.5 % v/v	oz/a	EPOST EPOST EPOST	B B B		10 b	9 b	10 b	4 b	0 a
9	PREFIX ROUNDUP POWERMAX N-PAK AMS	5.29 EC 4.5 SL 100 SL		1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a	2 pt/a 22 fl oz/a 2.5 % v/v	pt/a	EPOST EPOST EPOST	B B B		17 a	13 a	12 a	5 a	0 a
10	FLEXSTAR GT 3.5 N-PAK AMS	2.82 SL 100 SL		1.23 lb ae/a 2.5 % v/v	ae/a	3.5 pt/a 2.5 % v/v	pt/a	EPOST EPOST	B B		2 d	1 c	0 d	0 c	0 a
11	EXTREME N-PAK AMS	2.17 SL 100 SL		0.81 lb ai/a 2.5 % v/v	ai/a	3 pt/a 2.5 % v/v	pt/a	EPOST EPOST	B B		5 c	2 c	2 c	0 c	0 a
12	WARRANT ROUNDUP POWERMAX N-PAK AMS	3 CS 4.5 SL 100 SL		1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a	3 pt/a 22 fl oz/a 2.5 % v/v	pt/a	EPOST EPOST EPOST	B B B		1 de	0 c	0 d	0 c	0 a
13	AUTHORITY XL PREFIX ROUNDUP POWERMAX N-PAK AMS	70 WG 5.29 EC 4.5 SL 100 SL		0.175 lb ai/a 1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a	4 oz/a 2 pt/a 22 fl oz/a 2.5 % v/v	oz/a	PRE EPOST EPOST EPOST	A B B B	0 a	17 a	14 a	12 a	4 ab	0 a

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Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

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Pest Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Code	5-18-12	5-27-12	5-29-12	6-3-12	6-10-12	6-19-12	6-28-12
Rating Date	Injury	Injury	Injury	Injury	Injury	Injury	Injury
Rating Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	14 DAE	7 DA-B	30 DA-A	30 DAE	21 DA-B	30 DA-B	60 DA-A
Rating Timing	19 DA-A						
Trt-Eval Interval							
Trt Treatment	Form	Form	Rate	Other	Other	Growth	Appl
No. Name	Conc	Type	Rate	Rate	Rate	Unit	Code
14 NONTREATED	0 a	0 e	0 c	0 d	0 c	0 a	0 a
LSD (P=.05)	0.0	1.8	2.2	1.9	1.2	0.0	0.0
Standard Deviation	0.0	1.1	1.3	1.1	0.7	0.0	0.0
CV	0.0	24.12	37.76	32.64	59.29	0.0	0.0
Replicate F	0.000	0.582	0.728	0.958	3.059	0.000	0.000
Replicate Prob(F)	1.0000	0.5658	0.4922	0.3968	0.0641	1.0000	1.0000
Treatment F	0.000	109.328	50.768	68.583	23.544	0.000	0.000
Treatment Prob(F)	1.0000	0.0001	0.0001	0.0001	0.0001	1.0000	1.0000

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval										GLXMA 7-28-12 Injury Percent 90 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	AUTHORITY FIRST SELECT COC (PRIME OIL)	70 2 100	WG EC SL	0.28 0.125 1 %	lb ai/a lb ai/a v/v	6.4 8 fl 1 %	oz/a oz/a v/v	PRE POST-IN POST-IN	A C C	0 a
2	AUTHORITY XL SELECT COC (PRIME OIL)	70 2 100	WG EC SL	0.284 0.125 1 %	lb ai/a lb ai/a v/v	6.5 8 fl 1 %	oz/a oz/a v/v	PRE POST-IN POST-IN	A C C	0 a
3	VALOR XLT SELECT COC (PRIME OIL)	40.3 2 100	WG EC SL	0.126 0.125 1 %	lb ai/a lb ai/a v/v	5.0 8 fl 1 %	oz/a oz/a v/v	PRE POST-IN POST-IN	A C C	0 a
4	FIERCE SELECT COC (PRIME OIL)	76 2 100	WG EC SL	0.143 0.125 1 %	lb ai/a lb ai/a v/v	3 8 fl 1 %	oz/a oz/a v/v	PRE POST-IN POST-IN	A C C	0 a
5	PREFIX SELECT COC (PRIME OIL)	5.29 2 100	EC EC SL	1.32 0.125 1 %	lb ai/a lb ai/a v/v	2 8 fl 1 %	pt/a oz/a v/v	PRE POST-IN POST-IN	A C C	0 a
6	OPTILL SELECT COC (PRIME OIL)	68 2 100	WG EC SL	0.085 0.125 1 %	lb ai/a lb ai/a v/v	2 8 fl 1 %	oz/a oz/a v/v	PRE POST-IN POST-IN	A C C	0 a
7	AUTHORITY XL ANTHEM ROUNDUP POWERMAX N-PAK AMS	70 2.15 4.5 100	WG SE SL SL	0.175 0.101 0.77 2.5 %	lb ai/a lb ai/a lb ae/a v/v	4 6 fl 22 fl 2.5 %	oz/a oz/a oz/a v/v	PRE EPOST EPOST EPOST	A B B B	0 a
8	ANTHEM ROUNDUP POWERMAX N-PAK AMS	2.15 4.5 100	SE SL SL	0.118 0.77 2.5 %	lb ai/a lb ae/a v/v	7 fl 22 fl 2.5 %	oz/a oz/a v/v	EPOST EPOST EPOST	B B B	0 a
9	PREFIX ROUNDUP POWERMAX N-PAK AMS	5.29 4.5 100	EC SL SL	1.32 0.77 2.5 %	lb ai/a lb ae/a v/v	2 22 fl 2.5 %	pt/a oz/a v/v	EPOST EPOST EPOST	B B B	0 a
10	FLEXSTAR GT 3.5 N-PAK AMS	2.82 100	SL SL	1.23 2.5 %	lb ae/a v/v	3.5 2.5 %	pt/a v/v	EPOST EPOST	B B	0 a
11	EXTREME N-PAK AMS	2.17 100	SL SL	0.81 2.5 %	lb ai/a v/v	3 2.5 %	pt/a v/v	EPOST EPOST	B B	0 a
12	WARRANT ROUNDUP POWERMAX N-PAK AMS	3 4.5 100	CS SL SL	1.13 0.77 2.5 %	lb ai/a lb ae/a v/v	3 22 fl 2.5 %	pt/a oz/a v/v	EPOST EPOST EPOST	B B B	0 a
13	AUTHORITY XL PREFIX ROUNDUP POWERMAX N-PAK AMS	70 5.29 4.5 100	WG EC SL SL	0.175 1.32 0.77 2.5 %	lb ai/a lb ai/a lb ae/a v/v	4 2 22 fl 2.5 %	oz/a pt/a oz/a v/v	PRE EPOST EPOST EPOST	A B B B	0 a

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Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

Investigator: Bryan Young

Pest Code											GLXMA
Crop Code											7-28-12
Rating Date											Injury
Rating Type											Percent
Rating Unit											
Rating Timing											
Trt-Eval Interval											90 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Other Rate	Other Rate	Growth Unit	Stage	Appl Code	
14	NONTREATED										0 a
LSD (P=.05)											0.0
Standard Deviation											0.0
CV											0.0
Replicate F											0.000
Replicate Prob(F)											1.0000
Treatment F											0.000
Treatment Prob(F)											1.0000

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR
									5-20-12 Control Percent 0 DA-B 21 DA-A	5-29-12 Control Percent 30 DA-A	6-19-12 Control Percent 30 DA-B	6-28-12 Control Percent 60 DA-A	7-19-12 Control Percent 60 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	AUTHORITY FIRST SELECT COC (PRIME OIL)	70 WG 2 EC 100 SL		0.28 lb ai/a 0.125 lb ai/a 1 % v/v	6.4 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	99 a	98 ab	97 a	97 ab	95 a
2	AUTHORITY XL SELECT COC (PRIME OIL)	70 WG 2 EC 100 SL		0.284 lb ai/a 0.125 lb ai/a 1 % v/v	6.5 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	99 a	98 ab	96 a	95 ab	94 ab
3	VALOR XLT SELECT COC (PRIME OIL)	40.3 WG 2 EC 100 SL		0.126 lb ai/a 0.125 lb ai/a 1 % v/v	5.0 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	99 a	99 a	97 a	96 ab	95 a
4	FIERCE SELECT COC (PRIME OIL)	76 WG 2 EC 100 SL		0.143 lb ai/a 0.125 lb ai/a 1 % v/v	3 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	99 a	97 ab	94 a	91 ab	88 ab
5	PREFIX SELECT COC (PRIME OIL)	5.29 EC 2 EC 100 SL		1.32 lb ai/a 0.125 lb ai/a 1 % v/v	2 pt/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	98 a	97 ab	93 a	93 ab	91 ab
6	OPTILL SELECT COC (PRIME OIL)	68 WG 2 EC 100 SL		0.085 lb ai/a 0.125 lb ai/a 1 % v/v	2 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	93 b	89 c	73 b	64 cd	50 d
7	AUTHORITY XL ANTHEM ROUNDUP POWERMAX N-PAK AMS	70 WG 2.15 SE 4.5 SL 100 SL		0.175 lb ai/a 0.101 lb ai/a 0.77 lb ae/a 2.5 % v/v	4 oz/a 6 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A B B B	99 a	98 ab	98 a	98 a	97 a
8	ANTHEM ROUNDUP POWERMAX N-PAK AMS	2.15 SE 4.5 SL 100 SL		0.118 lb ai/a 0.77 lb ae/a 2.5 % v/v	7 fl oz/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B		94 bc	85 ab	80 bc	77 bc
9	PREFIX ROUNDUP POWERMAX N-PAK AMS	5.29 EC 4.5 SL 100 SL		1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v	2 pt/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B		97 ab	93 a	90 ab	90 ab
10	FLEXSTAR GT 3.5 N-PAK AMS	2.82 SL 100 SL		1.23 lb ae/a 2.5 % v/v	3.5 pt/a 2.5 % v/v		EPOST EPOST	B B		91 c	76 b	70 c	70 c
11	EXTREME N-PAK AMS	2.17 SL 100 SL		0.81 lb ai/a 2.5 % v/v	3 pt/a 2.5 % v/v		EPOST EPOST	B B		83 d	52 c	45 e	48 d
12	WARRANT ROUNDUP POWERMAX N-PAK AMS	3 CS 4.5 SL 100 SL		1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v	3 pt/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B		75 e	57 c	50 de	37 d
13	AUTHORITY XL PREFIX ROUNDUP POWERMAX N-PAK AMS	70 WG 5.29 EC 4.5 SL 100 SL		0.175 lb ai/a 1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v	4 oz/a 2 pt/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A B B B	99 a	99 a	99 a	99 a	99 a

Southern Illinois University

Anthem Preemergence and Postemergence in Soybean - Site 1.

Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

Investigator: Bryan Young

Pest Code	AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR		
Crop Code							
Rating Date	5-20-12	5-29-12	6-19-12	6-28-12	7-19-12		
Rating Type	Control	Control	Control	Control	Control		
Rating Unit	Percent	Percent	Percent	Percent	Percent		
Rating Timing	0 DA-B						
Trt-Eval Interval	21 DA-A	30 DA-A	30 DA-B	60 DA-A	60 DA-B		
Trt Treatment No. Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit Stage	Appl Code
14 NONTREATED	0 c	0 f	0 d	0 f	0 e		
LSD (P=.05)	2.0	5.3	15.3	17.9	17.1		
Standard Deviation	1.1	3.1	9.1	10.7	10.2		
CV	1.3	3.63	11.5	13.99	13.84		
Replicate F	0.258	0.899	1.178	0.692	2.310		
Replicate Prob(F)	0.7757	0.4193	0.3237	0.5097	0.1193		
Treatment F	2493.613	204.047	27.446	21.299	25.099		
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001		

Southern Illinois University

Anthem Preemergence and Postemergence in Soybean - Site 1.

Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

Investigator: Bryan Young

Pest Code									AMATA-HR	AMATA-HR	
Crop Code									7-28-12	8-18-12	
Rating Date									Control	Control	
Rating Type									Percent	Percent	
Rating Unit											
Rating Timing											
Trt-Eval Interval									90 DA-A	90 DA-B	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	AUTHORITY FIRST SELECT COC (PRIME OIL)	70 WG 2 EC 100 SL		0.28 lb ai/a 0.125 lb ai/a 1 % v/v		6.4 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	94 a	94 a
2	AUTHORITY XL SELECT COC (PRIME OIL)	70 WG 2 EC 100 SL		0.284 lb ai/a 0.125 lb ai/a 1 % v/v		6.5 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	93 a	94 a
3	VALOR XLT SELECT COC (PRIME OIL)	40.3 WG 2 EC 100 SL		0.126 lb ai/a 0.125 lb ai/a 1 % v/v		5.0 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	93 a	94 a
4	FIERCE SELECT COC (PRIME OIL)	76 WG 2 EC 100 SL		0.143 lb ai/a 0.125 lb ai/a 1 % v/v		3 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	80 ab	85 ab
5	PREFIX SELECT COC (PRIME OIL)	5.29 EC 2 EC 100 SL		1.32 lb ai/a 0.125 lb ai/a 1 % v/v		2 pt/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	87 a	90 ab
6	OPTILL SELECT COC (PRIME OIL)	68 WG 2 EC 100 SL		0.085 lb ai/a 0.125 lb ai/a 1 % v/v		2 oz/a 8 fl oz/a 1 % v/v		PRE POST-IN POST-IN	A C C	42 de	43 de
7	AUTHORITY XL ANTHEM ROUNDUP POWERMAX N-PAK AMS	70 WG 2.15 SE 4.5 SL 100 SL		0.175 lb ai/a 0.101 lb ai/a 0.77 lb ae/a 2.5 % v/v		4 oz/a 6 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A B B B	94 a	94 a
8	ANTHEM ROUNDUP POWERMAX N-PAK AMS	2.15 SE 4.5 SL 100 SL		0.118 lb ai/a 0.77 lb ae/a 2.5 % v/v		7 fl oz/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B	67 bc	70 bc
9	PREFIX ROUNDUP POWERMAX N-PAK AMS	5.29 EC 4.5 SL 100 SL		1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v		2 pt/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B	87 a	87 ab
10	FLEXSTAR GT 3.5 N-PAK AMS	2.82 SL 100 SL		1.23 lb ae/a 2.5 % v/v		3.5 pt/a 2.5 % v/v		EPOST EPOST	B B	57 cd	57 cd
11	EXTREME N-PAK AMS	2.17 SL 100 SL		0.81 lb ai/a 2.5 % v/v		3 pt/a 2.5 % v/v		EPOST EPOST	B B	35 e	35 e
12	WARRANT ROUNDUP POWERMAX N-PAK AMS	3 CS 4.5 SL 100 SL		1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v		3 pt/a 22 fl oz/a 2.5 % v/v		EPOST EPOST EPOST	B B B	23 e	23 e
13	AUTHORITY XL PREFIX ROUNDUP POWERMAX N-PAK AMS	70 WG 5.29 EC 4.5 SL 100 SL		0.175 lb ai/a 1.32 lb ai/a 0.77 lb ae/a 2.5 % v/v		4 oz/a 2 pt/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A B B B	99 a	99 a

Southern Illinois University

Anthem Preemergence and Postemergence in Soybean - Site 1.

Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

Investigator: Bryan Young

Pest Code		AMATA-HR	AMATA-HR
Crop Code			
Rating Date		7-28-12	8-18-12
Rating Type		Control	Control
Rating Unit		Percent	Percent
Rating Timing			
Trt-Eval Interval		90 DA-A	90 DA-B
Trt Treatment	Form Form		
No. Name	Conc Type Rate Unit		
14 NONTREATED		0 f	0 f
LSD (P=.05)		19.8	20.9
Standard Deviation		11.8	12.4
CV		17.38	18.05
Replicate F		1.164	0.775
Replicate Prob(F)		0.3281	0.4709
Treatment F		21.501	19.676
Treatment Prob(F)		0.0001	0.0001

Anthem Preemergence and Postemergence in Soybean - Site 1.

Trial ID: 12-DSO-AnthemSB

Location: De Soto, IL

Investigator: Bryan Young

Trial Comments

1. Protocol: FMC (Anthem-SB).
2. Ratings: CI 14 and 30 DAE, 7 and 21 DA-B. WC 30, 60, and 90 DAT.
WC at 30 DAT or before any POST application.
3. POST-IN application C is postemergence if needed, not applied, not needed.
4. Yield if possible.
5. Blanket burndown of Gramoxone Inteon (4 pt/A) plus NIS (0.5%) was applied on 4-28-12.
Rainfall following the PRE application was approximately 0.5 inch the next day
and an additional 0.25 inch 7 days later.
6. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
7. Harvested 10-10-12, (2) 30 inch rows by 27 ft.