Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

General Trial Information

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor

Trial Status: F - one-year/final
Initiation Date: 5-19-12

Trial Location

City: Belleville
State/Prov.: IL
Postal Code: 62221
Country: USA

Objectives:
Evaluate the crop response and yield of soybean following a preplant application of tank-mixtures of residual herbicides under weed-free conditions.

Personnel

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor
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
Variety: AG 4005 **Description:** RR
BBCH Scale: BSOY **Planting Date:** 5-19-12
Planting Method: SEEDED **Rate, Unit:** 75 LB/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 30 IN

Pest Description

Pest 1 Type: W **Code:** NA
Common Name: crop tolerance only

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 25 FT
Plot Area, Unit: 250 FT2 **Tillage Type:** REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	NONE	2011

Maintenance

No.	Maintenance Treatment Name
1.	N 0 LB/A, P2O5 50 LB/A, K2O 100 LB/A

Soil Description

% OM: 1.9 **Texture:** SIL SILT LOAM
pH: 6.4 **Soil Name:** BETHALTO
CEC: 11

Additional Measured Elements

Element	Quantity	Unit
P1	68	LB/A
K	349	LB/A

Moisture and Weather Conditions

Overall Moisture Conditions: BELNOR below normal
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-24-12					7	DAY	42.6	74.3	F
2.	4-29-12	3.06	IN	RAIN	rain					
3.	4-30-12	0.66	IN	RAIN	rain					
4.	5-1-12	0.13	IN	RAIN	rain					
5.	5-1-12					7	DAY	33.5	76	F
6.	5-4-12	0.25	IN	RAIN	rain					
7.	5-7-12	0.29	IN	RAIN	rain					
8.	5-8-12					7	DAY	47.5	87.8	F
9.	5-15-12					7	DAY	37.7	81.3	F
10.	5-21-12	0.18	IN	RAIN	rain					
11.	5-22-12					7	DAY	47.6	82.3	F
12.	5-29-12					7	DAY	48.1	90	F
13.	5-30-12	0.07	IN	RAIN	rain					
14.	5-31-12	0.21	IN	RAIN	rain					
15.	6-5-12					7	DAY	50.2	90.1	F
16.	6-11-12	0.75	IN	RAIN	rain					
17.	6-12-12					7	DAY	52.4	93.6	F
18.	6-17-12	0.36	IN	RAIN	rain					
19.	6-19-12					7	DAY	56.3	94	F
20.	6-26-12					7	DAY	51.8	105.4	F
21.	7-3-12					7	DAY	68.9	104.7	F
22.	7-8-12	0.28	IN	RAIN	rain					
23.	7-10-12					7	DAY	63.4	95	F
24.	7-17-12					7	DAY	61	102.2	F
25.	7-24-12					7	DAY	61	103	F
26.	7-29-12	0.15	IN	RAIN	rain					
27.	7-31-12					7	DAY	60.2	99.1	F
28.	8-5-12	0.18	IN	RAIN	rain					
29.	8-7-12					7	DAY	50.2	99.8	F
30.	8-13-12	0.88	IN	RAIN	rain					
31.	8-14-12					7	DAY	51	95.6	F
32.	8-17-12	1.19	IN	RAIN	rain					
33.	8-21-12					7	DAY	54.7	94.2	F
34.	8-26-12	0.04	IN	RAIN	rain					
35.	8-27-12	1.66	IN	RAIN	rain					
36.	8-31-12	0.11	IN	RAIN	rain					

Application Description

	A
Application Date:	5-19-12
Time of Day:	16:00
Application Method:	Spray
Application Timing:	0-7DBP
Application Placement:	BROFOL
Applied By:	LAH
Air Temperature, Unit:	88 F
% Relative Humidity:	38
Wind Velocity, Unit:	8 MPH
Wind Direction:	S
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	63 F
Soil Moisture:	BELNOR
% Cloud Cover:	40
Next Rain Occurred On:	5-21-12

Southern Illinois University

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	NA W DESC
Stage Majority, Percent:	NA

Application Equipment

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

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 10-29-12 Moisture Percent	GLXMA 10-29-12 Test wt. lb/bu	GLXMA 10-29-12 Yield bu/A	GLXMA 6-9-12 Injury Percent 3 WAP	GLXMA 6-30-12 Injury Percent 6 WAP	GLXMA 7-21-12 Injury Percent 9 WAP
1	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	11.7 a	58.6 a	80 a	0 g	0 c	0 a
2	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	11.7 a	58.5 a	88 a	0 g	0 c	0 a
3	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	11.7 a	58.7 a	80 a	0 g	0 c	0 a
4	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	11.7 a	58.6 a	82 a	5 cde	0 c	0 a
5	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	11.6 a	58.8 a	84 a	0 g	0 c	0 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A						
6	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	11.7 a	58.6 a	82 a	2 fg	0 c	0 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A						
7	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	11.6 a	58.7 a	80 a	2 fg	0 c	0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A						
8	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	11.6 a	58.7 a	82 a	0 g	0 c	0 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A						
9	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	11.6 a	58.6 a	78 a	0 g	0 c	0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A						
10	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	11.7 a	58.6 a	83 a	2 fg	0 c	0 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	A						
11	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	11.8 a	58.6 a	84 a	3 ef	1 bc	0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A						
12	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	11.8 a	58.4 a	82 a	4 de	1 bc	0 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A						
13	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	11.6 a	58.8 a	80 a	0 g	0 c	0 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A						
14	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	11.6 a	58.6 a	80 a	0 g	0 c	0 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A						
15	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	11.6 a	58.7 a	81 a	5 cde	0 c	0 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A						
16	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	11.6 a	58.7 a	83 a	4 de	0 c	0 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A						
17	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	11.6 a	58.7 a	78 a	5 cde	1 abc	0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A						
18	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	11.6 a	58.7 a	82 a	2 f	0 c	0 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A						
19	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	11.7 a	58.6 a	81 a	0 g	0 c	0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A						
20	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	11.6 a	58.7 a	87 a	6 bc	0 c	0 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	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.

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 10-29-12 Moisture Percent	GLXMA 10-29-12 Test wt. lb/bu	GLXMA 10-29-12 Yield bu/A	GLXMA 6-9-12 Injury Percent 3 WAP	GLXMA 6-30-12 Injury Percent 6 WAP	GLXMA 7-21-12 Injury Percent 9 WAP
21	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	11.6 a	58.7 a	80 a	9 a	3 a	0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A						
22	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	11.4 a	59.0 a	80 a	7 ab	1 bc	0 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A						
23	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	11.6 a	58.7 a	79 a	7 b	0 c	0 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A						
24	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	11.6 a	58.8 a	82 a	6 bcd	2 ab	0 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A						
25	NONTREATED									11.9 a	58.4 a	80 a	0 g	0 c	0 a
LSD (P=.05)										0.38	0.57	6.0	1.9	1.3	0.0
Standard Deviation										0.27	0.40	4.3	1.4	0.9	0.0
CV										2.32	0.68	5.22	51.78	315.84	0.0
Replicate F										0.551	0.144	13.760	4.615	3.104	0.000
Replicate Prob(F)										0.6489	0.9329	0.0001	0.0052	0.0318	1.0000
Treatment F										0.540	0.361	1.332	16.606	1.764	0.000
Treatment Prob(F)										0.9537	0.9966	0.1759	0.0001	0.0343	1.0000

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-9-12 Stunt Percent 3 WAP	GLXMA 6-30-12 Stunt Percent 6 WAP	GLXMA 7-21-12 Stunt Percent 9 WAP	GLXMA 6-9-12 Chlorosis Percent 3 WAP	GLXMA 6-30-12 Chlorosis Percent 6 WAP	GLXMA 7-21-12 Chlorosis Percent 9 WAP
1	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
2	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
3	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
4	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	2 bcd	0 c	0 a	0 a	0 a	0 a
5	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A						
6	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A						
7	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A						
8	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A						
9	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A						
10	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	A						
11	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	2 bcd	1 bc	0 a	0 a	0 a	0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A						
12	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	2 bcd	1 bc	0 a	0 a	0 a	0 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A						
13	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A						
14	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A						
15	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	2 abc	0 c	0 a	0 a	0 a	0 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A						
16	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	2 bcd	0 c	0 a	0 a	0 a	0 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A						
17	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	1 cd	1 abc	0 a	0 a	0 a	0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A						
18	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	1 cd	0 c	0 a	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A						
19	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 d	0 c	0 a	0 a	0 a	0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A						
20	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	3 ab	0 c	0 a	0 a	0 a	0 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	A						

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-9-12 Stunt Percent 3 WAP	GLXMA 6-30-12 Stunt Percent 6 WAP	GLXMA 7-21-12 Stunt Percent 9 WAP	GLXMA 6-9-12 Chlorosis Percent 3 WAP	GLXMA 6-30-12 Chlorosis Percent 6 WAP	GLXMA 7-21-12 Chlorosis Percent 9 WAP
21	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	3 a	3 a	0 a	0 a	0 a	0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A						
22	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	4 a	1 bc	0 a	0 a	0 a	0 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A						
23	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	3 ab	0 c	0 a	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A						
24	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	2 abc	2 ab	0 a	0 a	0 a	0 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A						
25	NONTREATED									0 d	0 c	0 a	0 a	0 a	0 a
LSD (P=.05)										1.5	1.3	0.0	0.0	0.0	0.0
Standard Deviation										1.1	0.9	0.0	0.0	0.0	0.0
CV										110.55	315.84	0.0	0.0	0.0	0.0
Replicate F										3.464	3.104	0.000	0.000	0.000	0.000
Replicate Prob(F)										0.0206	0.0318	1.0000	1.0000	1.0000	1.0000
Treatment F										5.078	1.764	0.000	0.000	0.000	0.000
Treatment Prob(F)										0.0001	0.0343	1.0000	1.0000	1.0000	1.0000

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-9-12 Necrosis Percent 3 WAP	GLXMA 6-30-12 Necrosis Percent 6 WAP	GLXMA 7-21-12 Necrosis Percent 9 WAP
1	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 a	0 a	0 a
2	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 a	0 a	0 a
3	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 a	0 a	0 a
4	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	0 a	0 a	0 a
5	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A			
6	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A			
7	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A			
8	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A			
9	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A			
10	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	A			
11	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A			
12	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A			
13	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A			
14	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	0 a	0 a	0 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A			
15	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 a	0 a	0 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A			
16	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 a	0 a	0 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A			
17	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 a	0 a	0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A			
18	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A			
19	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	0 a	0 a	0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A			
20	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	0 a	0 a	0 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	A			

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-9-12 Necrosis Percent 3 WAP	GLXMA 6-30-12 Necrosis Percent 6 WAP	GLXMA 7-21-12 Necrosis Percent 9 WAP
21	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	0 a	0 a	0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A			
22	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	0 a	0 a	0 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A			
23	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	0 a	0 a	0 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A			
24	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	0 a	0 a	0 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A			
25	NONTREATED									0 a	0 a	0 a
LSD (P=.05)										0.0	0.0	0.0
Standard Deviation										0.0	0.0	0.0
CV										0.0	0.0	0.0
Replicate F										0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-7-12 Plants 000/A 3 WAP	GLXMA 6-28-12 Plants 000/A 6 WAP	GLXMA 10-11-12 Plants 000/A Harvest	GLXMA 10-29-12 200 Seed wt gram Harvest	GLXMA 6-7-12 V1 Percent 3 WAP	GLXMA 6-28-12 R1 Percent 6 WAP	GLXMA 7-9-12 R2 Percent 7 WAP	GLXMA 7-9-12 R Stage 7 WAP
1	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	82.9 a	138.6 a	129.3 a	40.9 a	33 a	60 abc	100 a	2.0 a
2	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	109.4 a	143.3 a	126.0 a	41.5 a	70 a	63 ab	98 a	2.0 a
3	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	102.1 a	147.2 a	124.7 a	40.6 a	38 a	40 a-e	100 a	2.0 a
4	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	132.6 a	152.5 a	134.0 a	39.9 a	55 a	43 a-e	100 a	2.0 a
5	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	75.6 a	134.0 a	112.7 a	39.9 a	30 a	43 a-e	100 a	2.0 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A								
6	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	96.2 a	144.6 a	130.7 a	40.2 a	35 a	55 a-d	100 a	2.0 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A								
7	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	136.0 a	154.5 a	139.3 a	40.4 a	40 a	38 a-f	100 a	2.0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A								
8	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	73.6 a	136.0 a	115.4 a	40.6 a	35 a	45 a-e	88 a	1.8 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A								
9	SPARTAN SC	4	SC	0.25	lb ai/a	8	fl oz/a	0-7DBP	A	82.9 a	133.3 a	111.4 a	40.3 a	58 a	35 b-f	100 a	2.0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A								
10	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	16.6 a	117.4 a	100.1 a	40.2 a	13 a	18 ef	90 a	1.8 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	A								
11	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	114.7 a	145.2 a	125.3 a	41.0 a	43 a	38 a-f	100 a	2.0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A								
12	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	62.3 a	130.0 a	108.1 a	41.7 a	33 a	33 c-f	93 a	1.9 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A								
13	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	138.6 a	156.5 a	139.9 a	41.1 a	75 a	55 a-d	100 a	2.0 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A								
14	SPARTAN SC	4	SC	0.5	lb ai/a	16	fl oz/a	0-7DBP	A	36.5 a	129.3 a	108.8 a	41.8 a	15 a	38 a-f	88 a	1.8 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A								
15	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	74.9 a	136.6 a	118.1 a	40.9 a	33 a	45 a-e	93 a	1.9 a
	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	0-7DBP	A								
16	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	82.9 a	136.6 a	117.4 a	41.7 a	40 a	33 c-f	100 a	2.1 a
	BOUNDARY	6.5	EC	1.7	lb ai/a	2.1	pt/a	0-7DBP	A								
17	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	77.6 a	141.9 a	118.7 a	40.5 a	43 a	38 a-f	100 a	2.0 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	0-7DBP	A								
18	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	57.7 a	143.9 a	123.4 a	40.2 a	35 a	53 a-d	100 a	2.0 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	0-7DBP	A								
19	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	0-7DBP	A	88.9 a	139.9 a	122.7 a	42.1 a	40 a	58 abc	100 a	2.0 a
	KIH-485	85	WG	0.106	lb ai/a	2	oz/a	0-7DBP	A								
20	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	94.8 a	150.5 a	131.3 a	41.4 a	18 a	23 ef	100 a	2.0 a
	PROWL H2O	3.8	CS	2.38	lb ai/a	5	pt/a	0-7DBP	A								

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-7-12 Plants 000/A 3 WAP	GLXMA 6-28-12 Plants 000/A 6 WAP	GLXMA 10-11-12 Plants 000/A Harvest	GLXMA 10-29-12 200 Seed wt gram Harvest	GLXMA 6-7-12 V1 Percent 3 WAP	GLXMA 6-28-12 R1 Percent 6 WAP	GLXMA 7-9-12 R2 Percent 7 WAP	GLXMA 7-9-12 R Stage 7 WAP
21	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	88.9 a	143.3 a	126.7 a	40.1 a	10 a	20 ef	100 a	2.0 a
	BOUNDARY	6.5	EC	3.4	lb ai/a	4.2	pt/a	0-7DBP	A								
22	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	80.9 a	143.9 a	124.0 a	40.5 a	20 a	28 def	100 a	2.0 a
	PREFIX	5.29	EC	3.3	lb ai/a	5.0	pt/a	0-7DBP	A								
23	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	88.9 a	131.3 a	117.4 a	40.8 a	35 a	10 f	93 a	1.9 a
	SHARPEN	2.85	SC	0.0445	lb ai/a	2.0	fl oz/a	0-7DBP	A								
24	VALOR SX	51	WG	0.16	lb ai/a	5.0	oz/a	0-7DBP	A	61.0 a	125.3 a	116.1 a	40.5 a	28 a	38 a-f	98 a	2.0 a
	KIH-485	85	WG	0.213	lb ai/a	4	oz/a	0-7DBP	A								
25	NONTREATED									123.4 a	146.6 a	134.0 a	40.2 a	65 a	65 a	95 a	1.9 a
LSD (P=.05)										87.55	26.45	28.66	1.49	41.2	28.8	11.8	0.25
Standard Deviation										61.91	18.70	20.27	1.05	29.1	20.3	8.3	0.18
CV										70.99	13.35	16.58	2.58	77.83	50.49	8.55	8.96
Replicate F										2.636	2.471	3.059	0.371	4.697	6.533	5.988	6.409
Replicate Prob(F)										0.0562	0.0686	0.0336	0.7744	0.0047	0.0006	0.0011	0.0007
Treatment F										0.887	0.996	0.963	1.456	1.346	1.989	1.051	0.842
Treatment Prob(F)										0.6167	0.4826	0.5219	0.1132	0.1678	0.0135	0.4185	0.6735

Southern Illinois University

Residual Herbicide Tank-Mixtures: Weed Free Study - SIU.

Trial ID: 12-9B-N270
Location: Belleville Res Center
Investigator: Bryan Young

Trial Comments

1. Protocol: ISA - Res_Hb_Tm_WF-SIU.
2. Trial including border rows, is to be maintained weed-free.
   Ratings: CI (overall, stunting, chlorosis, necrosis) at 3, 6, and 9 WAP.
   Determine growth stage of 10 plants/plot at each evaluation. Photos at all evaluation timings.
3. Determine soybean population (count plants in 1 meter of row at 2 locations in each plot)
   at 3 WAP and at harvest.
4. Yield is required. Measure weight of 200 seeds/plot.
   Complete harvest index evaluation may be prudent, but not confirmed at this time.
5. Boundary and Prefix rates may be adjusted to match local practices.
6. WAP = Weeks after planting. 000/A = Thousands per acre.
   V1 Percent = Percentage of 10 sampled plants that had reached soybean vegetative stage 1.
   R1 Percent = Percentage of 10 sampled plants that had reached soybean reproductive stage 1.
   R2 Percent = Percentage of 10 sampled plants that had reached soybean reproductive stage 2.
   R Stage = Soybean reproductive stage.
7. Soybean emergence was delayed and non-uniform due to dry soil conditions, however
   the variability in development became much less by 7 WAP.
8. Harvested 10-29-12, (2) 30 inch rows by 22 ft.