

Ohio State University
Horticulture and Crop Science

LIBERTY LINK SOYBEAN STRIP TRIALS IN GLYPHOSATE RESISTANT GIANT RAGWEED

Trial ID: 08LLSTRIP Protocol ID: 08LLSTRIP
Location: CLARKSBURG, OHIO Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

General Trial Information

Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: SG 3888NLL
BBCH Scale: BSOY Planting Date: May/06/2008
Planting Method: JOHN DEERE 7200 Rate, Unit: 183000 SEED/A
Depth, Unit: 1 IN
Row Spacing, Unit: 15 IN
Seed Bed: CONVENTIONAL Soil Temperature, Unit: 69 F
Soil Moisture: DRY/DRY

Pest Description

Pest 1 Type: W Code: AMBTR Ambrosia trifida
Common Name: Giant ragweed
Pest 2 Type: W Code: CHEAL Chenopodium album
Common Name: Common lambsquarters
Pest 3 Type: W Code: AMBEL Ambrosia artemisiifolia
Common Name: Common ragweed
Pest 4 Type: W Code: HIBTR Hibiscus trionum
Common Name: Venice mallow

Site and Design

Plot Width, Unit: 20 FT
Plot Length, Unit: 205 FT Tillage Type: CONVENTIOANL
Replications: 1 Study Design: Randomized Complete Block

Field Prep./Maintenance:

BURNDOWN ENTIRE TRIAL WITH 3 PT GRAMOXONE INTION + NIS 0.25% V/V 5-6-08

Soil Description

% Sand: 24.5 % OM: 2.9 Texture: SILTY CLAY LOAM
% Silt: 48.9 pH: 6.8 Soil Name: KOKOMO
% Clay: 26.6 CEC: 11.7 Fert. Level: GOOD
Analyzed By:
Calmer soil testing labs, Westerville, OH 43081

Application Description

	A	B	C	D
Application Date:	May/06/2008	Jun/12/2008	Jul/01/2008	Jun/17/2008
Time of Day:	6:00 P.M.	8:00 A.M.	9:00 A.M.	9:00 A.M.
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	4" GIRW	3 WKA B	8-12" GIR
Application Placement:	BROADCAST	BROADCAST	BROADCAST	BROADCAST
Applied By:	BRUCE	BRUCE	BRUCE	BRUCE
Air Temperature, Unit:	74 F	73 F	74 F	73 F
% Relative Humidity:	50	63	67	49
Wind Velocity, Unit:	5 MPH	2 MPH	1 MPH	4 MPH
Wind Direction:	S	SE	SSW	W
Soil Temperature, Unit:	69 F	69 F	69 F	65 F
Soil Moisture:	DRY/DRY	DRY/MOIST	MOIST/WET	DRY/MOIST
% Cloud Cover:	25	3	0	5
Next Rain Occurred On:	May/08/2008			

Crop Stage At Each Application

	A		B		C		D	
Crop 1 Code, BBCH Scale:	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Stage Scale Used:	DESC		DESC		DESC		DESC	
Stage Majority, Percent:	V3		V4		V4		V4	
Height, Unit:	5	IN	12	IN	8	IN	8	IN
Height Minimum, Maximum:	4.5	5.5	8	12	7.5	8.5	8.5	8.5

Ohio State University
Horticulture and Crop Science

Pest Stage At Each Application

	A		B		C		D	
Pest 1 Code, Disc., Scale:	AMBTR	W 14-1	AMBTR	W BBCH	AMBTR	W	AMBTR	W
Stage Majority, Percent:			2 LEAF		10 LVS		6 LVS	
Stage Minimum, Percent:			2 LEAF		10 LVS		6 LVS	
Stage Maximum, Percent:			2 LEAF		10 LVS		6 LVS	
Height, Unit:			1.5	IN	10	IN	4	IN
Height Minimum, Maximum:			1	2	4	12	3.5	4.5
Pest 2 Code, Disc., Scale:	CHEAL	W	CHEAL	W BBCH	CHEAL	W	CHEAL	W
Stage Majority, Percent:			2 LEAF				8 LVS	
Stage Minimum, Percent:			2 LEAF				6 LVS	
Stage Maximum, Percent:			2 LEAF				8 LVS	
Height, Unit:			0.75	IN			2.5	IN
Height Minimum, Maximum:			0.5	1			2	3
Pest 3 Code, Disc., Scale:	AMBEL	W	AMBEL	W	AMBEL	W	AMBEL	W
Stage Majority, Percent:							2 LVS	
Stage Minimum, Percent:							2 LVS	
Stage Maximum, Percent:							2 LVS	
Height, Unit:							2	IN
Height Minimum, Maximum:							1.5	2.5
Pest 4 Code, Disc., Scale:	HIBTR	W	HIBTR	W	HIBTR	W	HIBTR	W
Stage Majority, Percent:							2 LVS	
Stage Minimum, Percent:							2 LVS	
Stage Maximum, Percent:							2 LVS	
Height, Unit:							1.5	IN
Height Minimum, Maximum:							1	2

Application Equipment

	A		B		C		D	
Appl. Equipment:	BACKPACK		BACKPACK		BACKPACK		BACKPACK	
Operating Pressure, Unit:	53	PSI	53	PSI	53	PSI	53	PSI
Nozzle Type:	TEEJET DG		TEEJET DG		TEEJET DG		TEEJET DG	
Nozzle Size:	11002		11002		11002		11002	
Nozzle Spacing, Unit:	18	IN	18	IN	18	IN	18	IN
Boom Length, Unit:	10	FT	10	FT	10	FT	10	FT
Boom Height, Unit:	20	IN	20	IN	20	IN	20	IN
Ground Speed, Unit:	3	MPH	3	MPH	3	MPH	3	MPH
Carrier:	WATER		WATER		WATER		WATER	
Spray Volume, Unit:	20	GPA	20	GPA	20	GPA	20	GPA
Mix Size, Unit:	3	Liters	3	Liters	3	Liters	3	Liters
Propellant:	CO2		CO2		CO2		CO2	

Ohio State University
Horticulture and Crop Science

LIBERTY LINK SOYBEAN STRIP TRIALS IN GLYPHOSATE RESISTANT GIANT RAGWEED

Trial ID: 08LLSTRIP Protocol ID: 08LLSTRIP
Location: CLARKSBURG, OHIO Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

Pest Type						W Weed		W Weed	W Weed	W Weed	
Pest Code						AMBTR		SETFA	AMBTR	CHEAL	
Crop Code						GLXMA		GLXMA			
BBCH Scale						BSOY		BSOY			
Crop Name						Soybean		Soybean			
Rating Date						Jun/09/2008	Jun/09/2008	Jun/24/2008	Jun/24/2008	Jun/24/2008	
Rating Data Type						PHYTO	CONTROL	PHYTO	CONTROL	CONTROL	
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	
Days After First/Last Applic.						34 34	34 34	49 7	49 7	49 7	
Trt-Eval Interval						34 DA-A	34 DA-A	49 DA-A	49 DA-A	49 DA-A	
Plant-Eval Interval						34 DP-1	34 DP-1	49 DP-1	49 DP-1	49 DP-1	
Number of Decimals						0	0	0	0	0	
Trt No.	Treatment Name	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4	5	6
1	Untreated					.	.	0	100	20	100
1	PowerMAX	22 fl oz/a		EAPOWE B							
1	Ammonium Sulfate	2 qt/a		EAPOWE B							
1	PowerMAX	22 fl oz/a		MIPOWE C							
1	Ammonium Sulfate	2 qt/a		MIPOWE C							
2	Valor XLT			PREPLA A		10	80	2	100	98	100
2	Valor	1.76 oz/a		PREPLA A							
2	Classic	1.24 oz/a		PREPLA A							
2	Ignite	22 fl oz/a		POSPOS D							
2	Ammonium Sulfate	2 qt/a		POSPOS D							
3	Valor XLT			PREPLA A		10	80	5	100	99	100
3	Valor	1.76 oz/a		PREPLA A							
3	Classic	1.24 oz/a		PREPLA A							
3	Ignite	22 fl oz/a		EAPOWE B							
3	Ammonium Sulfate	2 qt/a		EAPOWE B							
3	Ignite	22 fl oz/a		MIPOWE C							
3	Ammonium Sulfate	2 qt/a		MIPOWE C							
4	Ignite	22 fl oz/a		EAPOWE B		5	65	3	100	99	80
4	Ammonium Sulfate	2 qt/a		EAPOWE B							
4	Ignite	22 fl oz/a		MIPOWE C							
4	Ammonium Sulfate	2 qt/a		MIPOWE C							
5	BAS 800 04H	1 oz/a		PREPLA A		5	85	2	98	98	98
5	Ignite	22 fl oz/a		POSPOS D							
5	Ammonium Sulfate	2 qt/a		POSPOS D							
6	Gangster			PREPLA A		5	85	3	100	99	100
6	FirstRate	0.3 oz/a		PREPLA A							
6	Valor	1.5 oz/a		PREPLA A							
6	Ignite	22 fl oz/a		EAPOWE B							
6	Ammonium Sulfate	8.5 lb/100 gal		EAPOWE B							
6	Ignite	22 fl oz/a		MIPOWE C							
6	Ammonium Sulfate	2 qt/a		MIPOWE C							
7	Gangster			PREPLA A		.	.	2	100	98	100
7	FirstRate	0.3 oz/a		PREPLA A							
7	Valor	1.5 oz/a		PREPLA A							
7	Ignite	22 fl oz/a		POSPOS D							
7	Ammonium Sulfate	2 qt/a		POSPOS D							
7											
	LSD (P=.05)					.	.	.	.	.	.
	Standard Deviation					.	.	.	.	.	.
	CV					.	.	.	.	.	.
	Bartlett's X2					.	.	.	.	.	.
	P(Bartlett's X2)					.	.	.	.	.	.

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

Ohio State University
Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	HIBTR	SETFA	AMBTR	CHEAL	HIBTR	AMBTR	CHEAL
Crop Code							
BBCH Scale							
Crop Name							
Rating Date	Jun/24/2008	Jul/08/2008	Jul/08/2008	Jul/08/2008	Jul/08/2008	Aug/06/2008	Aug/06/2008
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Days After First/Last Applic.	49 7	63 7	63 7	63 7	63 7	92 36	92 36
Trt-Eval Interval	49 DA-A	21 DA-D	21 DA-D	21 DA-D	21 DA-D	36 DA-C	36 DA-C
Plant-Eval Interval	49 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1	92 DP-1	92 DP-1
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate Unit	Growth Stage	Appl Code	7	8	9	10	11	12	13
1	Untreated					100	100	60	100	100	30	100
1	PowerMAX	22 fl oz/a		EAPOWE	B							
1	Ammonium Sulfate	2 qt/a		EAPOWE	B							
1	PowerMAX	22 fl oz/a		MIPOWE	C							
1	Ammonium Sulfate	2 qt/a		MIPOWE	C							
2	Valor XLT			PREPLA	A	100	100	85	100	100	70	100
2	Valor	1.76 oz/a		PREPLA	A							
2	Classic	1.24 oz/a		PREPLA	A							
2	Ignite	22 fl oz/a		POSPOS	D							
2	Ammonium Sulfate	2 qt/a		POSPOS	D							
3	Valor XLT			PREPLA	A	100	100	100	100	100	100	100
3	Valor	1.76 oz/a		PREPLA	A							
3	Classic	1.24 oz/a		PREPLA	A							
3	Ignite	22 fl oz/a		EAPOWE	B							
3	Ammonium Sulfate	2 qt/a		EAPOWE	B							
3	Ignite	22 fl oz/a		MIPOWE	C							
3	Ammonium Sulfate	2 qt/a		MIPOWE	C							
4	Ignite	22 fl oz/a		EAPOWE	B	90	100	100	100	100	100	100
4	Ammonium Sulfate	2 qt/a		EAPOWE	B							
4	Ignite	22 fl oz/a		MIPOWE	C							
4	Ammonium Sulfate	2 qt/a		MIPOWE	C							
5	BAS 800 04H	1 oz/a		PREPLA	A	100	100	97	100	100	60	100
5	Ignite	22 fl oz/a		POSPOS	D							
5	Ammonium Sulfate	2 qt/a		POSPOS	D							
6	Gangster			PREPLA	A	100	100	99	100	100	70	80
6	FirstRate	0.3 oz/a		PREPLA	A							
6	Valor	1.5 oz/a		PREPLA	A							
6	Ignite	22 fl oz/a		EAPOWE	B							
6	Ammonium Sulfate	8.5 lb/100 gal		EAPOWE	B							
6	Ignite	22 fl oz/a		MIPOWE	C							
6	Ammonium Sulfate	2 qt/a		MIPOWE	C							
7	Gangster			PREPLA	A	100	100	95	100	100	75	100
7	FirstRate	0.3 oz/a		PREPLA	A							
7	Valor	1.5 oz/a		PREPLA	A							
7	Ignite	22 fl oz/a		POSPOS	D							
7	Ammonium Sulfate	2 qt/a		POSPOS	D							
7												

LSD (P=.05)	.	.	.	.	.	.	.	.	.	.	.	.
Standard Deviation	.	.	.	.	.	.	.	.	.	.	.	.
CV	.	.	.	.	.	.	.	.	.	.	.	.
Bartlett's X2	.	.	.	.	.	.	.	.	.	.	.	.
P(Bartlett's X2)	.	.	.	.	.	.	.	.	.	.	.	.

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

Ohio State University
Horticulture and Crop Science

Pest Type W Weed
 Pest Code HIBTR
 Crop Code
 BBCH Scale
 Crop Name
 Rating Date Aug/06/2008
 Rating Data Type CONTROL
 Rating Unit PERCENT
 Days After First/Last Applic. 92 36
 Trt-Eval Interval 36 DA-C
 Plant-Eval Interval 92 DP-1
 Number of Decimals 0

Trt No.	Treatment Name	Other Rate	Other Rate Unit	Growth Stage	Appl Code	14
1	Untreated					100
1	PowerMAX	22	fl oz/a	EAPOWE B		
1	Ammonium Sulfate	2	qt/a	EAPOWE B		
1	PowerMAX	22	fl oz/a	MIPOWE C		
1	Ammonium Sulfate	2	qt/a	MIPOWE C		
2	Valor XLT			PREPLA A		100
2	Valor	1.76	oz/a	PREPLA A		
2	Classic	1.24	oz/a	PREPLA A		
2	Ignite	22	fl oz/a	POSPOS D		
2	Ammonium Sulfate	2	qt/a	POSPOS D		
3	Valor XLT			PREPLA A		100
3	Valor	1.76	oz/a	PREPLA A		
3	Classic	1.24	oz/a	PREPLA A		
3	Ignite	22	fl oz/a	EAPOWE B		
3	Ammonium Sulfate	2	qt/a	EAPOWE B		
3	Ignite	22	fl oz/a	MIPOWE C		
3	Ammonium Sulfate	2	qt/a	MIPOWE C		
4	Ignite	22	fl oz/a	EAPOWE B		100
4	Ammonium Sulfate	2	qt/a	EAPOWE B		
4	Ignite	22	fl oz/a	MIPOWE C		
4	Ammonium Sulfate	2	qt/a	MIPOWE C		
5	BAS 800 04H	1	oz/a	PREPLA A		100
5	Ignite	22	fl oz/a	POSPOS D		
5	Ammonium Sulfate	2	qt/a	POSPOS D		
6	Gangster			PREPLA A		100
6	FirstRate	0.3	oz/a	PREPLA A		
6	Valor	1.5	oz/a	PREPLA A		
6	Ignite	22	fl oz/a	EAPOWE B		
6	Ammonium Sulfate	8.5	lb/100 gal	EAPOWE B		
6	Ignite	22	fl oz/a	MIPOWE C		
6	Ammonium Sulfate	2	qt/a	MIPOWE C		
7	Gangster			PREPLA A		100
7	FirstRate	0.3	oz/a	PREPLA A		
7	Valor	1.5	oz/a	PREPLA A		
7	Ignite	22	fl oz/a	POSPOS D		
7	Ammonium Sulfate	2	qt/a	POSPOS D		
7						
	LSD (P=.05)					.
	Standard Deviation					.
	CV					.
	Bartlett's X2					.
	P(Bartlett's X2)					.

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