

Weed control systems in Liberty Link soybean

Trial ID: SOY03-09  
Conducted: C-12

Study Dir.: Sprague, Powell  
Investigator: Christy Sprague

Date Planted: 5/18/09  
Variety: Stine 24L08 LL  
Population: 156,000  
Soil Type: Silt Loam  
Plot Size: 10 X 30 FT  
Row Spacing: 30 IN  
No. of Reps: 4  
% OM: 3.6  
pH: 7.5  
Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall moldboard plow, spring soil finished twice  
Fertilizer: None

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIFOLIA L.
2.	ANGR	mainly foxtail species	SETARIA SP.
3.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
4.	AMAPO	AMARANTH, POWELL	AMARANTHUS POWELLII S. WATS.
5.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C	D
Application Timing:	PRE	EPOS	MPOS	POST
Date Treated:	5/18/09	6/15/09	6/23/09	7/8/09
Time Treated:	4:20 pm	1:45 pm	1:30 pm	2:20 pm
% Cloud Cover:	0	10	65	80
Air Temp., Unit:	72 F	84 F	92 F	75 F
% Relative Humidity:	23	28	46	
Wind Speed/Unit/Dir:	5 mph SW	6 mph NE	1 mph NW	3 mph E
Soil Temp., Unit:	62 F	78 F	78 F	78 F
Soil/Leaf Surface M:	5 5	5 5	3 5	5 5
Soil Moist (1=w 5=d):	3	4	3	5

Crop Stage at Each Application

	A	B	C	D
Crop Name:	GLXMA	GLXMA	GLXMA	GLXMA
Height (In.):	-	6	10	12
Stage (L):	-	V2	V4	V8

Weed Stage at Each Application

	A	B	C	D
Weed 1 Name:	AMBEL	AMBEL	AMBEL	AMBEL
Height (In.):	-	3	6	3
Stage (L):	-	6	many	6
Weed 2 Name:	ANGR	ANGR	ANGR	ANGR
Height (In.):	-	3	7	3
Stage (L):	-	3	4	2
Weed 3 Name:	CHEAL	CHEAL	CHEAL	CHEAL
Height (In.):	-	2	4	2
Stage (L):	-	6	many	6
Weed 4 Name:	AMAPO	AMAPO	AMAPO	AMAPO
Height (In.):	-	2	5	3
Stage (L):	-	6	8	6
Weed 5 Name:	ABUTH	ABUTH	ABUTH	ABUTH
Height (In.):	-	3	4	2
Stage (L):	-	3	5	4

Weed Density (plants/sq. ft.)

	1	2	3	4	5
Weed Name:	ANGR	AMBEL	ABUTH	CHEAL	AMAPO
Density:	14	13	3	1	<1

Application Equipment

Appl	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	23"	20"	100"	19	Water	28
B	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	28
C	Cub	3.8	AirMix	11003	27"	20"	100"	19	Water	28
D	Cub	3.8	AirMix	11003	27"	20"	100"	19	Water	28



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Weed Code	GLXMA	GLXMA	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	GLXMA
Crop Code	injury	injury	control	control	control	control	control	injury
Rating Data Type	percent	percent	percent	percent	percent	percent	percent	percent
Rating Unit	6/10/09	6/23/09	6/23/09	6/23/09	6/23/09	6/23/09	6/23/09	6/30/09
Rating Date	23 DA-A	0 DA-C	0 DA-C	0 DA-C	0 DA-C	0 DA-C	0 DA-C	7 DA-C
Trt-Eval Interval								

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code								
17	Synchrony XP (0.375 oz/A)	28.4	WG					6	43						
17	Classic	25	WG	0.32	oz/a	MPOS	C								
17	Harmony SG	50	SG	0.05	oz/a	MPOS	C								
17	Ignite	2.34	L	22	fl oz/a	MPOS	C								
17	AMS		WG	8.5	lb/100 gal	MPOS	C								
18	Classic	25	WG	0.5	oz/a	MPOS	C	6	19						
18	Ignite	2.34	L	22	fl oz/a	MPOS	C								
18	AMS		WG	8.5	lb/100 gal	MPOS	C								
LSD (P=.05)								10.4	8.2	10.5	0.4	0.4	15.4	11.6	2.8
Standard Deviation								7.4	5.8	7.3	0.3	0.3	10.8	8.1	2.0
CV								61.0	88.24	10.24	0.3	0.3	16.64	9.99	31.2



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Weed Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	GLXMA	ANGR	AMBEL
Crop Code								
Rating Data Type	control	control	control	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent	percent
Rating Date	6/30/09	6/30/09	6/30/09	6/30/09	6/30/09	7/13/09	7/13/09	7/13/09
Trt-Eval Interval	7 DA-C	7 DA-C	7 DA-C	7 DA-C	7 DA-C	28 DA-B	28 DA-B	28 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	GLXMA	ANGR	AMBEL
17	Synchrony XP (0.375 oz/A)	28.4	WG					93	99	99	87	99	60	83	89
17	Classic	25	WG	0.32	oz/a	MPOS	C								
17	Harmony SG	50	SG	0.05	oz/a	MPOS	C								
17	Ignite	2.34	L	22	fl oz/a	MPOS	C								
17	AMS		WG	8.5	lb/100 gal	MPOS	C								
18	Classic	25	WG	0.5	oz/a	MPOS	C	91	99	99	90	99	0	87	93
18	Ignite	2.34	L	22	fl oz/a	MPOS	C								
18	AMS		WG	8.5	lb/100 gal	MPOS	C								
LSD (P=.05)								5.1	0.0	3.2	3.3	1.9	2.9	5.6	5.0
Standard Deviation								3.6	0.0	2.2	2.3	1.3	2.1	4.0	3.5
CV								3.99	0.0	2.42	2.62	1.46	59.37	4.79	3.97



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Weed Code							ABUTH	GLXMA	ANGR	CHEAL	AMBEL	AMAPO	ABUTH	GLXMA	
Crop Code							control	injury	control	control	control	control	control	control	moisture
Rating Data Type							percent	percent	percent	percent	percent	percent	percent	percent	percent
Rating Unit							7/13/09	7/21/09	7/21/09	7/21/09	7/21/09	7/21/09	7/21/09	7/21/09	10/19/09
Rating Date							28 DA-B	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C	154 DA-A
Trt-Eval Interval															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code								
17	Synchrony XP (0.375 oz/A)	28.4	WG					94	41	86	99	91	99	91	17.7
17	Classic	25	WG	0.32	oz/a	MPOS	C								
17	Harmony SG	50	SG	0.05	oz/a	MPOS	C								
17	Ignite	2.34	L	22	fl oz/a	MPOS	C								
17	AMS		WG	8.5	lb/100 gal	MPOS	C								
18	Classic	25	WG	0.5	oz/a	MPOS	C	92	0	89	99	90	99	93	13.4
18	Ignite	2.34	L	22	fl oz/a	MPOS	C								
18	AMS		WG	8.5	lb/100 gal	MPOS	C								
LSD (P=.05)							5.6	0.8	4.9	2.3	6.4	2.8	4.1	0.86	
Standard Deviation							4.0	0.6	3.5	1.6	4.5	2.0	2.9	0.61	
CV							4.49	25.71	3.95	1.77	4.99	2.12	3.21	4.38	

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Weed Code  
 Crop Code  
 Rating Data Type  
 Rating Unit  
 Rating Date  
 Trt-Eval Interval

GLXMA  
 yield  
 bu/acre  
 10/19/09  
 at 13% M

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	Valor	51	WG	2	oz/a	PRE	A	67.5
1	Ignite	2.34	L	22	fl oz/a	MPOS	C	
1	AMS		WG	8.5	lb/100 gal	MPOS	C	
2	Valor	51	WG	2	oz/a	PRE	A	68.7
2	Ignite	2.34	L	36	fl oz/a	MPOS	C	
2	AMS		WG	8.5	lb/100 gal	MPOS	C	
3	Authority First	70	WG	3	oz/a	PRE	A	71.3
3	Ignite	2.34	L	22	fl oz/a	MPOS	C	
3	AMS		WG	8.5	lb/100 gal	MPOS	C	
4	Authority First	70	WG	3	oz/a	PRE	A	70.1
4	Ignite	2.34	L	36	fl oz/a	MPOS	C	
4	AMS		WG	8.5	lb/100 gal	MPOS	C	
5	Pursuit	70	DG	1.4	oz/a	PRE	A	72.2
5	Ignite	2.34	L	22	fl oz/a	MPOS	C	
5	AMS		WG	8.5	lb/100 gal	MPOS	C	
6	Valor XLT	40.3	WG	3	oz/a	PRE	A	69.5
6	Ignite	2.34	L	22	fl oz/a	MPOS	C	
6	AMS		WG	8.5	lb/100 gal	MPOS	C	
7	Untreated							35.6
8	Prefix	5.29	L	2	pt/a	PRE	A	68.1
8	Ignite	2.34	L	22	fl oz/a	MPOS	C	
8	AMS		WG	8.5	lb/100 gal	MPOS	C	
9	Prowl H2O	3.8	L	2	pt/a	PRE	A	60.4
9	Ignite	2.34	L	22	fl oz/a	MPOS	C	
9	AMS		WG	8.5	lb/100 gal	MPOS	C	
10	Envive (2.5 oz/A)	41.3	WG					67.0
10	Classic	25	WG	0.9	oz/a	PRE	A	
10	Harmony SG	50	WG	0.15	oz/a	PRE	A	
10	Valor	51	WG	1.5	oz/a	PRE	A	
10	Ignite	2.34	L	22	fl oz/a	MPOS	C	
10	AMS		WG	8.5	lb/100 gal	MPOS	C	
11	Canopy	75	WG	2.25	oz/a	PRE	A	71.0
11	Ignite	2.34	L	22	fl oz/a	MPOS	C	
11	AMS		WG	8.5	lb/100 gal	MPOS	C	
12	Authority Assist	4	L	6	fl oz/a	PRE	A	72.3
12	Ignite	2.34	L	22	fl oz/a	MPOS	C	
12	AMS		WG	8.5	lb/100 gal	MPOS	C	
13	Ignite	2.34	L	22	fl oz/a	EPOS	B	69.1
13	AMS		WG	8.5	lb/100 gal	EPOS	B	
13	Ignite	2.34	L	22	fl oz/a	POST	D	
13	AMS		WG	8.5	lb/100 gal	POST	D	
14	Ignite	2.34	L	22	fl oz/a	MPOS	C	70.0
14	AMS		WG	8.5	lb/100 gal	MPOS	C	
15	Ignite	2.34	L	22	fl oz/a	MPOS	C	70.7
15	AMS		WG	17	lb/100 gal	MPOS	C	
16	Ignite	2.34	L	36	fl oz/a	MPOS	C	71.5
16	AMS		WG	8.5	lb/100 gal	MPOS	C	



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Rating Unit  
Rating Date  
Trt-Eval Interval  
GLXMA  
yield  
bu/acre  
10/19/09  
at 13% M

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
17	Synchrony XP (0.375 oz/A)	28.4	WG					57.7
17	Classic	25	WG	0.32	oz/a	MPOS	C	
17	Harmony SG	50	SG	0.05	oz/a	MPOS	C	
17	Ignite	2.34	L	22	fl oz/a	MPOS	C	
17	AMS		WG	8.5	lb/100 gal	MPOS	C	
18	Classic	25	WG	0.5	oz/a	MPOS	C	67.8
18	Ignite	2.34	L	22	fl oz/a	MPOS	C	
18	AMS		WG	8.5	lb/100 gal	MPOS	C	
LSD (P=.05)								4.12
Standard Deviation								2.91
CV								4.37