

MSU Weed Science Research Program

Application rate and timing of Ignite in Liberty Link soybean

Trial ID: SOY08-10 Study Dir.: Sprague, Powell
 Conducted: T-12 Center Investigator: Christy Sprague

Date Planted: 5/27/2010 Row Spacing: 30 IN
 Variety: Stine 23LA02 No. of Reps: 4
 Population: 156,000 seeds/acre % OM: 3.7
 Soil Type: Loam pH: 7.0
 Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow and spring soil finish
 Fertilizer: None

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	mainly foxtail species	SETARIA SP.
2.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
3.	BRAKA	MUSTARD, WILD	BRASSICA KABER (DC.) L.C. Wheeler
4.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
5.	AMASS	REDROOT PIGWEED, POWELL AMARANTH	AMARANTHUS SP.
6.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C	D
Application Timing:	6-8" wds	12"&+7day	+14day	+21day
Date Treated:	6/21/2010	6/28/2010	7/6/2010	7/12/2010
Time Treated:	10:45 am	9:30 am	10:24 am	12:15 pm
% Cloud Cover:	5	2	0	75
Air Temp., Unit:	79 F	76 F	85 F	81 F
% Relative Humidity:	54	80	51	60
Wind Speed/Unit/Dir:	3 mph SE	5 mph SE	6 mph SW	4 mph S
Soil Temp., Unit:	71 F	71 F	79 F	75 F
Soil/Leaf Surface M:	5 5	2 4	5 5	3 5
Soil Moist (1=w 5=d):	4	2	5	3

Crop Stage at Each Application

	A	B	C	D
Crop Name:	GLXMA	GLXMA	GLXMA	GLXMA
Height (In.):	8-9"	14"	15-17"	18-20"
Stage (L):	V3	V3	V5	V7

Weed Stage at Each Application

	A	B	C	D
Weed 1 Name:	ANGR	ANGR	ANGR	ANGR
Height (In.):	6-9"	10-13"	4-6"	6-12"
Stage (L):	3-4	4	4	5-8
Weed 2 Name:	AMBEL	AMBEL	AMBEL	AMBEL
Height (In.):	4-6"	5-7"	1-2"	3-6"
Stage (L):	8-12	4-6	4	6-8
Weed 3 Name:	BRAKA	BRAKA	BRAKA	BRAKA
Height (In.):	4-5"	15"	-	6-8"
Stage (L):	6	6	-	10-14
Weed 4 Name:	ABUTH	ABUTH	ABUTH	ABUTH
Height (In.):	5-6"	-	-	4-5"
Stage (L):	4	-	-	4-6
Weed 5 Name:	AMASS	AMASS	AMASS	AMASS
Height (In.):	6-8"	10-12"	1"	1-4"
Stage (L):	8-10	6-8	4	4-12
Weed 6 Name:	CHEAL	CHEAL	CHEAL	CHEAL
Height (In.):	5-7"	-	1"	3-6"
Stage (L):	10-16	-	4	8-12

Weed Density (plants/sq. ft.)

	1	2	3	4	5	6
Weed Name:	ANGR	AMBEL	ABUTH	AMASS	CHEAL	BRAKA
Density:	3	6	<1	3	2	<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	26"	20"	100"	19	water	28
B	Cub	3.8	AirMix	11003	29"	20"	100"	19	water	27
C	Cub	3.8	AirMix	11003	29"	20"	100"	19	water	27
D	Cub	3.8	AirMix	11003	29"	20"	100"	19	water	27

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Weed Code								ANGR	CHEAL	AMASS	AMBEL	ABUTH	
Crop Code								GLXMA					
Rating Data Type								injury	control	control	control	control	control
Rating Unit								percent	percent	percent	percent	percent	percent
Rating Date								6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Trt-Eval Interval								7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
# Subsamples, Dec.								0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Untreated							0	0	0	0	0	
2	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	2	85	98	99	99	
2	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
3	Ignite 280	2.34	L	29	fl oz/a	6-8" wds	A	3	89	99	99	99	
3	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
4	Ignite 280	2.34	L	36	fl oz/a	6-8" wds	A	3	90	99	99	99	
4	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
5	Ignite 280	2.34	L	29	fl oz/a	12" wds	B	0	0	0	0	0	
5	AMS		WG	8.5	lb/100 gal	12" wds	B						
6	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	0	0	0	0	0	
6	AMS		WG	8.5	lb/100 gal	12" wds	B						
7	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	3	87	99	99	99	
7	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
7	Ignite 280	2.34	L	22	fl oz/a	+ 7 d A	B						
7	AMS		WG	8.5	lb/100 gal	+ 7 d A	B						
8	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	3	85	99	99	99	
8	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
8	Ignite 280	2.34	L	22	fl oz/a	+ 14 d A	C						
8	AMS		WG	8.5	lb/100 gal	+ 14 d A	C						
9	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	3	86	98	99	99	
9	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
9	Ignite 280	2.34	L	22	fl oz/a	+ 21 d A	D						
9	AMS		WG	8.5	lb/100 gal	+ 21 d A	D						
10	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	0	0	0	0	0	
10	Harmony SG	50	WG	0.128	oz/a	12" wds	B						
10	AMS		WG	3	lb/100 gal	12" wds	B						
LSD (P=.05)								0.7	2.8	1.0	0.0	0.0	0.7
Standard Deviation								0.5	2.0	0.7	0.0	0.0	0.5
CV								27.5	3.76	1.2	0.0	0.0	0.77

Means followed by same letter do not significantly differ (P=.05, LSD)
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Weed Code						BRAKA		GLXMA		ANGR	AMBEL	AMASS	CHEAL	ABUTH
Crop Code							control	injury	control	control	control	control	control	control
Rating Data Type							percent	percent	percent	percent	percent	percent	percent	percent
Rating Unit							6/28/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010	7/6/2010
Rating Date							7 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A
Trt-Eval Interval							0	0	0	0	0	0	0	0
# Subsamples, Dec.							0	0	0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code							
1	Untreated							0	0	0	0	0	0	0
2	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	95	1	91	98	96	98	99
2	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
3	Ignite 280	2.34	L	29	fl oz/a	6-8" wds	A	97	1	96	98	97	98	99
3	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
4	Ignite 280	2.34	L	36	fl oz/a	6-8" wds	A	99	4	96	99	96	98	99
4	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
5	Ignite 280	2.34	L	29	fl oz/a	12" wds	B	0	13	97	99	99	99	99
5	AMS		WG	8.5	lb/100 gal	12" wds	B							
6	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	0	21	97	99	98	99	99
6	AMS		WG	8.5	lb/100 gal	12" wds	B							
7	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	98	9	99	99	99	99	99
7	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
7	Ignite 280	2.34	L	22	fl oz/a	+ 7 d A	B							
7	AMS		WG	8.5	lb/100 gal	+ 7 d A	B							
8	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	94	5	91	98	95	99	99
8	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
8	Ignite 280	2.34	L	22	fl oz/a	+ 14 d A	C							
8	AMS		WG	8.5	lb/100 gal	+ 14 d A	C							
9	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	92	0	93	98	95	97	98
9	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
9	Ignite 280	2.34	L	22	fl oz/a	+ 21 d A	D							
9	AMS		WG	8.5	lb/100 gal	+ 21 d A	D							
10	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	0	26	97	99	99	99	99
10	Harmony SG	50	WG	0.128	oz/a	12" wds	B							
10	AMS		WG	3	lb/100 gal	12" wds	B							
LSD (P=.05)								3.6	4.2	1.6	0.5	2.4	1.1	0.5
Standard Deviation								2.5	2.9	1.1	0.4	1.7	0.8	0.4
CV								4.33	36.27	1.29	0.43	1.93	0.87	0.41

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Weed Code								GLXMA	ANGR	AMBEL	AMASS	CHEAL	BRAKA
Crop Code								injury	control	control	control	control	control
Rating Data Type								percent	percent	percent	percent	percent	percent
Rating Unit								7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010
Rating Date								21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Trt-Eval Interval								0	0	0	0	0	0
# Subsamples, Dec.								0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Untreated							0	0	0	0	0	0
2	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	0	75	94	77	83	99
2	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
3	Ignite 280	2.34	L	29	fl oz/a	6-8" wds	A	1	85	94	82	87	98
3	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
4	Ignite 280	2.34	L	36	fl oz/a	6-8" wds	A	1	84	96	84	86	99
4	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
5	Ignite 280	2.34	L	29	fl oz/a	12" wds	B	8	85	99	91	94	99
5	AMS		WG	8.5	lb/100 gal	12" wds	B						
6	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	8	85	99	92	95	99
6	AMS		WG	8.5	lb/100 gal	12" wds	B						
7	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	2	98	99	99	99	99
7	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
7	Ignite 280	2.34	L	22	fl oz/a	+ 7 d A	B						
7	AMS		WG	8.5	lb/100 gal	+ 7 d A	B						
8	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	0	95	99	99	99	99
8	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
8	Ignite 280	2.34	L	22	fl oz/a	+ 14 d A	C						
8	AMS		WG	8.5	lb/100 gal	+ 14 d A	C						
9	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	0	76	91	80	85	90
9	AMS		WG	8.5	lb/100 gal	6-8" wds	A						
9	Ignite 280	2.34	L	22	fl oz/a	+ 21 d A	D						
9	AMS		WG	8.5	lb/100 gal	+ 21 d A	D						
10	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	21	92	97	96	95	99
10	Harmony SG	50	WG	0.128	oz/a	12" wds	B						
10	AMS		WG	3	lb/100 gal	12" wds	B						
LSD (P=.05)								3.8	4.8	3.1	4.9	4.6	2.4
Standard Deviation								2.6	3.3	2.1	3.4	3.2	1.7
CV								64.19	4.28	2.44	4.21	3.87	1.91

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Weed Code								ANGR	AMBEL	AMASS	CHEAL	BRAKA	GLXMA	
Crop Code								GLXMA					GLXMA	
Rating Data Type								injury	control	control	control	control	control	
Rating Unit								percent	percent	percent	percent	percent	percent	
Rating Date								8/9/2010	8/9/2010	8/9/2010	8/9/2010	8/9/2010	10/18/2010	
Trt-Eval Interval								49 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A	119 DA-A	
# Subsamples, Dec.								0	0	0	0	0	1	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code							
1	Untreated							0	0	0	0	0	10.7	
2	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	0	68	98	84	88	10.3	
2	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
3	Ignite 280	2.34	L	29	fl oz/a	6-8" wds	A	1	74	92	78	83	10.4	
3	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
4	Ignite 280	2.34	L	36	fl oz/a	6-8" wds	A	0	76	96	78	89	10.2	
4	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
5	Ignite 280	2.34	L	29	fl oz/a	12" wds	B	5	73	99	89	96	10.0	
5	AMS		WG	8.5	lb/100 gal	12" wds	B							
6	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	5	73	96	83	95	10.1	
6	AMS		WG	8.5	lb/100 gal	12" wds	B							
7	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	0	96	99	95	98	10.1	
7	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
7	Ignite 280	2.34	L	22	fl oz/a	+ 7 d A	B							
7	AMS		WG	8.5	lb/100 gal	+ 7 d A	B							
8	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	0	96	99	98	98	10.2	
8	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
8	Ignite 280	2.34	L	22	fl oz/a	+ 14 d A	C							
8	AMS		WG	8.5	lb/100 gal	+ 14 d A	C							
9	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	0	98	99	98	99	10.3	
9	AMS		WG	8.5	lb/100 gal	6-8" wds	A							
9	Ignite 280	2.34	L	22	fl oz/a	+ 21 d A	D							
9	AMS		WG	8.5	lb/100 gal	+ 21 d A	D							
10	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	10	70	91	79	90	10.2	
10	Harmony SG	50	WG	0.128	oz/a	12" wds	B							
10	AMS		WG	3	lb/100 gal	12" wds	B							
LSD (P=.05)								2.9	6.0	5.7	11.0	6.1	0.0	0.22
Standard Deviation								2.0	4.1	4.0	7.6	4.2	0.0	0.15
CV								93.63	5.7	4.56	9.76	5.08	0.0	1.51

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Investigator: Christy SpragueWeed Code
Crop Code
Rating Data Type
Rating Unit
Rating Date
Trt-Eval Interval
Subsamples, Dec.GLXMA
yield
bu/acre
10/18/2010
at 13% M
1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	Untreated							19.7
2	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	54.1
2	AMS		WG	8.5	lb/100 gal	6-8" wds	A	
3	Ignite 280	2.34	L	29	fl oz/a	6-8" wds	A	52.7
3	AMS		WG	8.5	lb/100 gal	6-8" wds	A	
4	Ignite 280	2.34	L	36	fl oz/a	6-8" wds	A	56.2
4	AMS		WG	8.5	lb/100 gal	6-8" wds	A	
5	Ignite 280	2.34	L	29	fl oz/a	12" wds	B	56.7
5	AMS		WG	8.5	lb/100 gal	12" wds	B	
6	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	56.6
6	AMS		WG	8.5	lb/100 gal	12" wds	B	
7	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	57.9
7	AMS		WG	8.5	lb/100 gal	6-8" wds	A	
7	Ignite 280	2.34	L	22	fl oz/a	+ 7 d A	B	
7	AMS		WG	8.5	lb/100 gal	+ 7 d A	B	
8	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	55.8
8	AMS		WG	8.5	lb/100 gal	6-8" wds	A	
8	Ignite 280	2.34	L	22	fl oz/a	+ 14 d A	C	
8	AMS		WG	8.5	lb/100 gal	+ 14 d A	C	
9	Ignite 280	2.34	L	22	fl oz/a	6-8" wds	A	54.1
9	AMS		WG	8.5	lb/100 gal	6-8" wds	A	
9	Ignite 280	2.34	L	22	fl oz/a	+ 21 d A	D	
9	AMS		WG	8.5	lb/100 gal	+ 21 d A	D	
10	Ignite 280	2.34	L	36	fl oz/a	12" wds	B	52.9
10	Harmony SG	50	WG	0.128	oz/a	12" wds	B	
10	AMS		WG	3	lb/100 gal	12" wds	B	
LSD (P=.05)								4.55
Standard Deviation								3.13
CV								6.06

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

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