

MSU Weed Science Research Program

Glyphosate-resistant Palmer amaranth programs in RR and LL soybean - Middleville

Trial ID: SOY25-13 Study Dir.: Powell, Sprague, Powell
 Conducted: Barry Co. Investigator: Christy Sprague

Date Planted: May/20/2013 Row Spacing: 30 IN
 Variety: DF9251LL/AG2433RR No. of Reps: 4
 Population: 150,000 seeds/A % OM: 2.2
 Soil Type: Sandy loam pH: 6.9
 Plot Size: 10 X 25 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Spring soil finish
 Fertilizer: None

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	AMAPA	AMARANTH, PALMER	AMARANTHUS PALMERI S.WATS.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C	D	E
Application Timing:	PRE	EPOS	POST	LPOS	LPOS 2
Date Treated:	May/20/2013	Jun/17/2013	Jun/24/2013	Jul/01/2013	Jul/15/2013
Time Treated:	4:00 PM	10:30 AM	2:00 PM	12:00 PM	2:15 PM
% Cloud Cover:	75	10	40	100	60
Air Temp., Unit:	73 F	73 F	88 F	72 F	93 F
% Relative Humidity:	50	53	49	45	49
Wind Speed/Unit/Dir:	8 mph SW	0 mph	2 mph W	2 mph N	1 mph SE
Soil Temp., Unit:	81 F	70 F	80 F	70 F	88 F
Soil/Leaf Surface M:	5 -	5 5	5 5	5 5	5 5
Soil Moist (1=w 5=d):	5	3	5	3	5

Crop Stage at Each Application

	A	B	C	D	E
Crop Name:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Height (In.):	-	5"	8"	12-13"	22"
Stage (L):	-	V2	V3	V4-V5	R2

Weed Stage at Each Application

	A	B	C	D	E
Weed 1 Name:	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA
Height (In.):	-	2-3(3)"	1-6(3)"	3,10" 3"	
Stage (L):	-	6-8(8)	2-18(12)	8,24 8	

Weed Density (plants/sq. ft.)

1
 Date: Jun/14/2013
 Weed Name: AMAPA
 Density: 40

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	GPA	Carrier	PSI
	Type	MPH	Type	Size	Height	Spacing	width			
A	Backpack	3.8	AIXR	11003	22"	20"	100"	19	water	30
B	Backpack	3.8	AIXR	11003	25"	20"	100"	19	water	30
C	Backpack	3.8	AIXR	11003	25"	20"	100"	19	water	30
D	Backpack	3.8	AIXR	11003	30"	20"	100"	19	water	30
E	Backpack	3.8	AIXR	11003	40"	20"	100"	19	water	30

Comments: This population of Palmer amaranth was resistant to glyphosate and ALS-inhibiting herbicides.

MSU Weed Science Research Program

Glyphosate-resistant Palmer amaranth programs in RR and LL soybean - Middleville

Trial ID: SOY25-13 Study Dir.: Powell, Sprague, Powell
 Conducted: Barry Co. Investigator: Christy Sprague

Weed Code	AMAPA	GLXMA	AMAPA
Crop Code		GLXMA	
Rating Data Type	injury	control	injury
Rating Unit	percent	percent	percent
Rating Date	Jun/06/2013	Jun/06/2013	Jun/13/2013
Trt-Eval Interval	17 DA-A	17 DA-A	24 DA-A
# Subsamples, Dec.	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	GLXMA injury percent Jun/06/2013	AMAPA control percent Jun/06/2013	GLXMA injury percent Jun/13/2013	AMAPA control percent Jun/13/2013
1	LibertyLink Seed							0	0	0	0
	Liberty	2.34	L	29	fl oz/a	EPOS	B				
	AMS		WG	8.5	lb/100 gal	EPOS	B				
	Liberty	2.34	L	29	fl oz/a	LPOS	D				
	AMS		WG	8.5	lb/100 gal	LPOS	D				
2	LibertyLink Seed							16	99	0	99
	Valor	51	WG	2	oz/a	PRE	A				
	Liberty	2.34	L	29	fl oz/a	POST	C				
	AMS		WG	8.5	lb/100 gal	POST	C				
	Liberty	2.34	L	29	fl oz/a	LPOS2	E				
	AMS		WG	8.5	lb/100 gal	LPOS2	E				
3	RR2 Yield Seed							0	0	0	0
	Roundup PowerMax	4.5	L	22	fl oz/a	EPOS	B				
	AMS		WG	17	lb/100 gal	EPOS	B				
	Roundup PowerMax	4.5	L	22	fl oz/a	LPOS	D				
	AMS		WG	17	lb/100 gal	LPOS	D				
4	RR2 Yield Seed							18	99	0	98
	Valor	51	WG	2	oz/a	PRE	A				
	Flexstar	1.88	L	1	pt/a	POST	C				
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C				
	COC		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
	Cobra	2	L	8	fl oz/a	LPOS2	E				
	COC		L	0.5	% v/v	LPOS2	E				
	AMS		WG	17	lb/100 gal	LPOS2	E				
5	LibertyLink Seed							15	99	0	98
	Valor	51	WG	2	oz/a	PRE	A				
	Liberty	2.34	L	29	fl oz/a	POST	C				
	Warrant	3	L	3	pt/a	POST	C				
	AMS		WG	8.5	lb/100 gal	POST	C				
6	LibertyLink Seed							15	99	0	98
	Valor	51	WG	2	oz/a	PRE	A				
	Liberty	2.34	L	29	fl oz/a	POST	C				
	Warrant	3	L	3	pt/a	POST	C				
	AMS		WG	8.5	lb/100 gal	POST	C				
	Liberty	2.34	L	29	fl oz/a	LPOS2	E				
	AMS		WG	8.5	lb/100 gal	LPOS2	E				
7	LibertyLink Seed							15	99	0	99
	Valor	51	WG	2	oz/a	PRE	A				
	Liberty	2.34	L	29	fl oz/a	POST	C				
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C				
	AMS		WG	8.5	lb/100 gal	POST	C				
8	LibertyLink Seed							15	99	0	99
	Valor	51	WG	2	oz/a	PRE	A				
	Liberty	2.34	L	29	fl oz/a	POST	C				
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C				
	AMS		WG	8.5	lb/100 gal	POST	C				
	Liberty	2.34	L	29	fl oz/a	LPOS2	E				
	AMS		WG	8.5	lb/100 gal	LPOS2	E				

MSU Weed Science Research Program

Weed Code								AMAPA		AMAPA	
Crop Code								GLXMA		GLXMA	
Rating Data Type								injury	control	injury	
Rating Unit								percent	percent	percent	
Rating Date								Jun/06/2013	Jun/06/2013	Jun/13/2013	
Trt-Eval Interval								17 DA-A	17 DA-A	24 DA-A	
# Subsamples, Dec.								0	0	0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
9	RR2 Yield Seed							15	99	0	99
	Valor	51	WG	2	oz/a	PRE	A				
	Flexstar	1.88	L	1	pt/a	POST	C				
	Warrant	3	L	3	pt/a	POST	C				
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C				
	COC		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
10	RR2 Yield Seed							16	99	0	99
	Valor	51	WG	2	oz/a	PRE	A				
	Flexstar	1.88	L	1	pt/a	POST	C				
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C				
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C				
	COC		L	1	% v/v	POST	C				
	AMS		WG	17	lb/100 gal	POST	C				
11	LibertyLink Seed							15	99	0	98
	Valor	51	WG	2	oz/a	PRE	A				
	Liberty	2.34	L	29	fl oz/a	POST	C				
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C				
	AMS		WG	8.5	lb/100 gal	POST	C				
	Flexstar	2.34	L	1	pt/a	LPOS2	E				
	AMS		WG	8.5	lb/100 gal	LPOS2	E				
12	LibertyLink Seed							15	99	0	98
	Valor	51	WG	2	oz/a	PRE	A				
	Prefix	5.29	L	2	pt/a	POST	C				
	COC		L	1	% v/v	POST	C				
	AMS		WG	8.5	lb/100 gal	POST	C				
	Liberty	2.34	L	29	fl oz/a	LPOS2	E				
	AMS		WG	8.5	lb/100 gal	LPOS2	E				
LSD (P=.05)								3.3	0.0	0.0	1.7
CV								17.61	0.0	0.0	1.47

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

MSU Weed Science Research Program

Weed Code								AMAPA		AMAPA		GLXMA
Crop Code								control		control		injury
Rating Data Type								percent		percent		percent
Rating Unit												
Rating Date								7 DA-B		7 DA-C		8 DA-D
Trt-Eval Interval								7 DA-B		7 DA-C		8 DA-D
# Subsamples, Dec.								0		0		0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	LibertyLink Seed							0	96	0	85	0
	Liberty	2.34	L	29	fl oz/a	EPOS	B					
	AMS		WG	8.5	lb/100 gal	EPOS	B					
	Liberty	2.34	L	29	fl oz/a	LPOS	D					
	AMS		WG	8.5	lb/100 gal	LPOS	D					
2	LibertyLink Seed							0	89	0	97	0
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					
3	RR2 Yield Seed							0	0	0	0	0
	Roundup PowerMax	4.5	L	22	fl oz/a	EPOS	B					
	AMS		WG	17	lb/100 gal	EPOS	B					
	Roundup PowerMax	4.5	L	22	fl oz/a	LPOS	D					
	AMS		WG	17	lb/100 gal	LPOS	D					
4	RR2 Yield Seed							0	88	21	99	5
	Valor	51	WG	2	oz/a	PRE	A					
	Flexstar	1.88	L	1	pt/a	POST	C					
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	17	lb/100 gal	POST	C					
	Cobra	2	L	8	fl oz/a	LPOS2	E					
	COC		L	0.5	% v/v	LPOS2	E					
	AMS		WG	17	lb/100 gal	LPOS2	E					
5	LibertyLink Seed							0	87	4	97	0
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Warrant	3	L	3	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
6	LibertyLink Seed							0	87	3	97	0
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Warrant	3	L	3	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					
7	LibertyLink Seed							0	91	5	98	0
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
8	LibertyLink Seed							0	88	5	98	0
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					

MSU Weed Science Research Program

Weed Code	GLXMA	AMAPA	GLXMA	AMAPA	GLXMA
Crop Code	injury	control	injury	control	injury
Rating Data Type	percent	percent	percent	percent	percent
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/24/2013	Jun/24/2013	Jul/01/2013	Jul/01/2013	Jul/09/2013
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-C	7 DA-C	8 DA-D
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	GLXMA injury	AMAPA control	GLXMA injury	AMAPA control	GLXMA injury
9	RR2 Yield Seed							0	90	21	99	5
	Valor	51	WG	2	oz/a	PRE	A					
	Flexstar	1.88	L	1	pt/a	POST	C					
	Warrant	3	L	3	pt/a	POST	C					
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	17	lb/100 gal	POST	C					
10	RR2 Yield Seed							0	91	30	99	8
	Valor	51	WG	2	oz/a	PRE	A					
	Flexstar	1.88	L	1	pt/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	17	lb/100 gal	POST	C					
11	LibertyLink Seed							0	87	5	97	0
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Flexstar	2.34	L	1	pt/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					
12	LibertyLink Seed							0	93	23	99	6
	Valor	51	WG	2	oz/a	PRE	A					
	Prefix	5.29	L	2	pt/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					

LSD (P=.05)	0.0	7.1	1.4	2.8	1.0
CV	0.0	5.96	9.69	2.17	35.98

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

MSU Weed Science Research Program

Weed Code	AMAPA	GLXMA	AMAPA	GLXMA	AMAPA
Crop Code	control	injury	control	injury	control
Rating Data Type	percent	percent	percent	percent	percent
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jul/09/2013	Jul/15/2013	Jul/15/2013	Jul/24/2013	Jul/24/2013
Trt-Eval Interval	8 DA-D	14 DA-D	14 DA-D	9 DA-E	9 DA-E
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMAPA	GLXMA	AMAPA	GLXMA	AMAPA
1	LibertyLink Seed							97	0	96	0	93
	Liberty	2.34	L	29	fl oz/a	EPOS	B					
	AMS		WG	8.5	lb/100 gal	EPOS	B					
	Liberty	2.34	L	29	fl oz/a	LPOS	D					
	AMS		WG	8.5	lb/100 gal	LPOS	D					
2	LibertyLink Seed							96	0	93	0	95
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					
3	RR2 Yield Seed							0	0	0	0	0
	Roundup PowerMax	4.5	L	22	fl oz/a	EPOS	B					
	AMS		WG	17	lb/100 gal	EPOS	B					
	Roundup PowerMax	4.5	L	22	fl oz/a	LPOS	D					
	AMS		WG	17	lb/100 gal	LPOS	D					
4	RR2 Yield Seed							98	0	98	20	99
	Valor	51	WG	2	oz/a	PRE	A					
	Flexstar	1.88	L	1	pt/a	POST	C					
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	17	lb/100 gal	POST	C					
	Cobra	2	L	8	fl oz/a	LPOS2	E					
	COC		L	0.5	% v/v	LPOS2	E					
	AMS		WG	17	lb/100 gal	LPOS2	E					
5	LibertyLink Seed							98	0	98	0	98
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Warrant	3	L	3	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
6	LibertyLink Seed							98	0	97	0	98
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Warrant	3	L	3	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					
7	LibertyLink Seed							99	0	98	0	99
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
8	LibertyLink Seed							99	0	96	0	99
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					

MSU Weed Science Research Program

Weed Code	AMAPA	GLXMA	AMAPA	GLXMA	AMAPA
Crop Code					
Rating Data Type	control	injury	control	injury	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jul/09/2013	Jul/15/2013	Jul/15/2013	Jul/24/2013	Jul/24/2013
Trt-Eval Interval	8 DA-D	14 DA-D	14 DA-D	9 DA-E	9 DA-E
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMAPA	GLXMA	AMAPA	GLXMA	AMAPA
9	RR2 Yield Seed							99	0	99	0	99
	Valor	51	WG	2	oz/a	PRE	A					
	Flexstar	1.88	L	1	pt/a	POST	C					
	Warrant	3	L	3	pt/a	POST	C					
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	17	lb/100 gal	POST	C					
10	RR2 Yield Seed							99	0	99	0	99
	Valor	51	WG	2	oz/a	PRE	A					
	Flexstar	1.88	L	1	pt/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	17	lb/100 gal	POST	C					
11	LibertyLink Seed							97	0	96	11	94
	Valor	51	WG	2	oz/a	PRE	A					
	Liberty	2.34	L	29	fl oz/a	POST	C					
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Flexstar	2.34	L	1	pt/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					
12	LibertyLink Seed							99	0	99	0	99
	Valor	51	WG	2	oz/a	PRE	A					
	Prefix	5.29	L	2	pt/a	POST	C					
	COC		L	1	% v/v	POST	C					
	AMS		WG	8.5	lb/100 gal	POST	C					
	Liberty	2.34	L	29	fl oz/a	LPOS2	E					
	AMS		WG	8.5	lb/100 gal	LPOS2	E					

LSD (P=.05)	1.7	0.0	3.5	1.7	4.3
CV	1.3	0.0	2.74	46.69	3.35

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

MSU Weed Science Research Program

Weed Code		AMAPA
Crop Code	GLXMA	
Rating Data Type	injury	control
Rating Unit	percent	percent
Rating Date	Aug/14/2013	Aug/14/2013
Trt-Eval Interval	30 DA-E	30 DA-E
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	LibertyLink Seed							0	95
	Liberty	2.34	L	29	fl oz/a	EPOS	B		
	AMS		WG	8.5	lb/100 gal	EPOS	B		
	Liberty	2.34	L	29	fl oz/a	LPOS	D		
	AMS		WG	8.5	lb/100 gal	LPOS	D		
2	LibertyLink Seed							0	97
	Valor	51	WG	2	oz/a	PRE	A		
	Liberty	2.34	L	29	fl oz/a	POST	C		
	AMS		WG	8.5	lb/100 gal	POST	C		
	Liberty	2.34	L	29	fl oz/a	LPOS2	E		
	AMS		WG	8.5	lb/100 gal	LPOS2	E		
3	RR2 Yield Seed							0	0
	Roundup PowerMax	4.5	L	22	fl oz/a	EPOS	B		
	AMS		WG	17	lb/100 gal	EPOS	B		
	Roundup PowerMax	4.5	L	22	fl oz/a	LPOS	D		
	AMS		WG	17	lb/100 gal	LPOS	D		
4	RR2 Yield Seed							8	99
	Valor	51	WG	2	oz/a	PRE	A		
	Flexstar	1.88	L	1	pt/a	POST	C		
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C		
	COC		L	1	% v/v	POST	C		
	AMS		WG	17	lb/100 gal	POST	C		
	Cobra	2	L	8	fl oz/a	LPOS2	E		
	COC		L	0.5	% v/v	LPOS2	E		
	AMS		WG	17	lb/100 gal	LPOS2	E		
5	LibertyLink Seed							0	98
	Valor	51	WG	2	oz/a	PRE	A		
	Liberty	2.34	L	29	fl oz/a	POST	C		
	Warrant	3	L	3	pt/a	POST	C		
	AMS		WG	8.5	lb/100 gal	POST	C		
6	LibertyLink Seed							0	99
	Valor	51	WG	2	oz/a	PRE	A		
	Liberty	2.34	L	29	fl oz/a	POST	C		
	Warrant	3	L	3	pt/a	POST	C		
	AMS		WG	8.5	lb/100 gal	POST	C		
	Liberty	2.34	L	29	fl oz/a	LPOS2	E		
	AMS		WG	8.5	lb/100 gal	LPOS2	E		
7	LibertyLink Seed							0	99
	Valor	51	WG	2	oz/a	PRE	A		
	Liberty	2.34	L	29	fl oz/a	POST	C		
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C		
	AMS		WG	8.5	lb/100 gal	POST	C		
8	LibertyLink Seed							0	99
	Valor	51	WG	2	oz/a	PRE	A		
	Liberty	2.34	L	29	fl oz/a	POST	C		
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C		
	AMS		WG	8.5	lb/100 gal	POST	C		
	Liberty	2.34	L	29	fl oz/a	LPOS2	E		
	AMS		WG	8.5	lb/100 gal	LPOS2	E		

MSU Weed Science Research Program

Weed Code		AMAPA
Crop Code	GLXMA	
Rating Data Type	injury	control
Rating Unit	percent	percent
Rating Date	Aug/14/2013	Aug/14/2013
Trt-Eval Interval	30 DA-E	30 DA-E
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Grow Stg	Appl Code		
9	RR2 Yield Seed							0	99
	Valor	51	WG	2	oz/a	PRE	A		
	Flexstar	1.88	L	1	pt/a	POST	C		
	Warrant	3	L	3	pt/a	POST	C		
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C		
	COC		L	1	% v/v	POST	C		
	AMS		WG	17	lb/100 gal	POST	C		
10	RR2 Yield Seed							0	99
	Valor	51	WG	2	oz/a	PRE	A		
	Flexstar	1.88	L	1	pt/a	POST	C		
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C		
	Roundup PowerMax	4.5	L	22	fl oz/a	POST	C		
	COC		L	1	% v/v	POST	C		
	AMS		WG	17	lb/100 gal	POST	C		
11	LibertyLink Seed							0	98
	Valor	51	WG	2	oz/a	PRE	A		
	Liberty	2.34	L	29	fl oz/a	POST	C		
	Dual II Magnum	7.64	L	1.33	pt/a	POST	C		
	AMS		WG	8.5	lb/100 gal	POST	C		
	Flexstar	2.34	L	1	pt/a	LPOS2	E		
	AMS		WG	8.5	lb/100 gal	LPOS2	E		
12	LibertyLink Seed							0	99
	Valor	51	WG	2	oz/a	PRE	A		
	Prefix	5.29	L	2	pt/a	POST	C		
	COC		L	1	% v/v	POST	C		
	AMS		WG	8.5	lb/100 gal	POST	C		
	Liberty	2.34	L	29	fl oz/a	LPOS2	E		
	AMS		WG	8.5	lb/100 gal	LPOS2	E		

LSD (P=.05)	2.1	2.8
CV	230.94	2.12

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