

MSU Weed Science Research Program

Soil-applied herbicides for control of glyphosate-resistant Palmer amaranth

Trial ID: SOY24-13 Study Dir.: Powell, Sprague, Powell
Conducted: St. Joseph Co. Investigator: Christy Sprague

Date Planted: May/17/2013 Row Spacing: 30 IN
Variety: DF 9251LL No. of Reps: 4
Population: 150,000 seeds/A % OM: 2.4
Soil Type: Sandy loam pH: 6.8
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel; 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
Application Timing: PRE
Date Treated: May/17/2013
Time Treated: 4:00 PM
% Cloud Cover: 100
Air Temp., Unit: 80 F
% Relative Humidity: 32
Wind Speed/Unit/Dir: 9 mph E
Soil Temp., Unit: 74 F
Soil/Leaf Surface M: 5 -
Soil Moist (1=w 5=d): 5

Crop Stage at Each Application

A
Crop Name: GLXMA
Height (In.): -
Stage (L): -

Weed Stage at Each Application

A
Weed 1 Name: AMAPA
Height (In.): -
Stage (L): -

Weed Density (plants/sq. ft.)

1
Date: Jun/14/2013
Weed Name: AMAPA
Density: 12

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Backpack	3.8	AIXR	11003	22"	20"	100"	19	water	30

Comments: Adequate precipitation for incorporation of PRES led to good control by the PRES this year.

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Weed Code		AMAPA		AMAPA	
Crop Code		GLXMA		GLXMA	GLXMA
Rating Data Type		injury	control	injury	injury
Rating Unit		percent	percent	percent	percent
Rating Date		Jun/06/2013	Jun/06/2013	Jun/13/2013	Jun/13/2013
Trt-Eval Interval		20 DA-A	20 DA-A	27 DA-A	35 DA-A
# Subsamples, Dec.		0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code					
1	Untreated					A	0	0	0	0	0	0
2	Sencor	75	DF	8	oz/a	PRE	A	4	99	0	98	0
3	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	1	99	0	97	0
4	Zidua	85	WG	2.5	oz/a	PRE	A	2	99	0	96	0
5	Prowl H2O	3.8	L	2	pt/a	PRE	A	0	98	0	61	0
6	Linex	4	L	1.5	pt/a	PRE	A	2	99	0	97	0
7	Boundary	6.5	L	2.4	pt/a	PRE	A	7	99	0	97	0
8	Prefix	5.29	L	2	pt/a	PRE	A	8	99	0	99	0
9	Spartan	4	L	8	oz/a	PRE	A	3	99	0	96	0
10	Valor	51	WG	2	oz/a	PRE	A	21	99	6	99	5
11	Valor	51	WG	2.5	oz/a	PRE	A	20	99	5	99	5
12	Fierce	76	WG	3	oz/a	PRE	A	19	99	5	99	5
13	Fierce	76	WG	3.75	oz/a	PRE	A	24	99	7	99	5
14	Balance Pro	4	L	2	fl oz/a	PRE	A		99		99	
	Sencor	75	DF	5.33	oz/a	PRE	A					
15	Balance Pro	4	L	3	fl oz/a	PRE	A		99		99	
	Sencor	75	DF	8	oz/a	PRE	A					
16	Balance Pro	4	L	2	fl oz/a	PRE	A		99		99	
	Sencor	75	DF	5.33	oz/a	PRE	A					
	Valor	51	WG	1.5	oz/a	PRE	A					
LSD (P=.05)								5.1	0.7	0.9	7.9	0.0
CV								42.08	0.54	36.41	6.2	0.0

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

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Weed Code	AMAPA	AMAPA	AMAPA
Crop Code			
Rating Data Type	control	control	control
Rating Unit	percent	percent	percent
Rating Date	Jun/21/2013	Jun/28/2013	Jul/10/2013
Trt-Eval Interval	35 DA-A	42 DA-A	54 DA-A
# Subsamples, Dec.	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code			
1	Untreated						A	0	0	0
2	Sencor	75	DF	8	oz/a	PRE	A	89	80	71
3	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	97	92	80
4	Zidua	85	WG	2.5	oz/a	PRE	A	97	92	92
5	Prowl H20	3.8	L	2	pt/a	PRE	A	59	35	23
6	Linex	4	L	1.5	pt/a	PRE	A	95	89	81
7	Boundary	6.5	L	2.4	pt/a	PRE	A	92	89	76
8	Prefix	5.29	L	2	pt/a	PRE	A	95	97	96
9	Spartan	4	L	8	oz/a	PRE	A	95	93	90
10	Valor	51	WG	2	oz/a	PRE	A	99	98	98
11	Valor	51	WG	2.5	oz/a	PRE	A	99	99	98
12	Fierce	76	WG	3	oz/a	PRE	A	99	99	99
13	Fierce	76	WG	3.75	oz/a	PRE	A	99	99	99
14	Balance Pro	4	L	2	fl oz/a	PRE	A	99	98	92
	Sencor	75	DF	5.33	oz/a	PRE	A			
15	Balance Pro	4	L	3	fl oz/a	PRE	A	98	95	90
	Sencor	75	DF	8	oz/a	PRE	A			
16	Balance Pro	4	L	2	fl oz/a	PRE	A	99	99	95
	Sencor	75	DF	5.33	oz/a	PRE	A			
	Valor	51	WG	1.5	oz/a	PRE	A			
LSD (P=.05)								6.9	13.8	16.2
CV								5.47	11.43	14.14

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