

MSU Weed Science Research Program

AMS replacments with glyphosate in Roundup Ready soybean

Trial ID: SOY12-10 Study Dir.: Sprague, Powell
Conducted: T-14 South Investigator: Christy Sprague

Date Planted: 5/19/2010 Row Spacing: 30 IN
Variety: Pioneer 92M61 No. of Reps: 4
Population: 155,000 % OM: 2.9
Soil Type: Loam pH: 6.9
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

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

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Lists weeds like ANGR, AMBEL, CHEAL, ABUTH, AMASS and crop GLXMA.

Application Description

A
Application Timing: POST
Date Treated: 6/17/2010
Time Treated: 10:45 am
% Cloud Cover: 70
Air Temp., Unit: 70 F
% Relative Humidity: 66
Wind Speed/Unit/Dir: 2 mph E
Soil Temp., Unit: 67 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

A
Crop Name: GLXMA
Height (In.): 4-6"
Stage (L): V3-4

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height (In.): 4-12"
Stage (L): 4-12
Weed 2 Name: AMBEL
Height (In.): 2-5"
Stage (L): 6-8
Weed 3 Name: CHEAL
Height (In.): 2-4"
Stage (L): 8-12
Weed 4 Name: ABUTH
Height (In.): 2-4"
Stage (L): 5-7
Weed 5 Name: AMASS
Height (In.): 2-4"
Stage (L): 8-12

Weed Density (plants/sq. ft.)

Table with 5 columns: Weed Name, Density. Lists weeds ANGR, CHEAL, AMBEL, ABUTH, AMASS and their densities.

Application Equipment

Table with 11 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Boom, Width, GPA, Carrier, PSI. Lists equipment for application A.

Comments: There were several plots where woodchuck damage occurred to soybean. Soybean injury for these plots was not evaluated.

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Weed Code								ANGR	CHEAL	AMASS	AMBEL	ABUTH	
Crop Code		GLXMA						control	control	control	control	control	
Rating Data Type		injury						percent	percent	percent	percent	percent	
Rating Unit		percent						6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	
Rating Date		6/25/2010						8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A	
Trt-Eval Interval		8 DA-A						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	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	79	99	79	40
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	96	99	91	89
2	AMS		WG	17	lb/100 gal	POST	A						
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	96	99	89	86
3	N-PAK AMS		L	2.5	% v/v	POST	A						
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	96	99	99	89
4	N-PAK AMS		L	5	% v/v	POST	A						
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	99	99	91	72
5	Class Act NG		L	2.5	% v/v	POST	A						
6	Untreated							0	0	0	0	0	0
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	98	99	90	88
7	AG 10003		L	2	% v/v	POST	A						
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	97	99	85	74
8	AG 10004		L	2	% v/v	POST	A						
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	98	99	85	79
9	AG 10009		L	2	% v/v	POST	A						
10	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	91	99	87	48
10	AG 03019		L	0.5	% v/v	POST	A						
LSD (P=.05)								0.0	0.7	5.6	0.0	14.5	20.5
Standard Deviation								0.0	0.5	3.9	0.0	10.0	14.1
CV								0.0	0.54	4.57	0.0	12.55	21.27

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

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	# Subsamples, Dec.	GLXMA injury percent 7/1/2010 14 DA-A	ANGR control percent 7/1/2010 14 DA-A	CHEAL control percent 7/1/2010 14 DA-A	AMASS control percent 7/1/2010 14 DA-A	AMBEL control percent 7/1/2010 14 DA-A	ABUTH control percent 7/1/2010 14 DA-A	
1	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	75	99	74	59
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	88	99	86	91
2	AMS		WG	17	lb/100 gal	POST	A						
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	92	99	91	87
3	N-PAK AMS		L	2.5	% v/v	POST	A						
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	97	89	99	92	77
4	N-PAK AMS		L	5	% v/v	POST	A						
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	94	99	88	73
5	Class Act NG		L	2.5	% v/v	POST	A						
6	Untreated							0	0	0	0	0	0
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	91	99	88	84
7	AG 10003		L	2	% v/v	POST	A						
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	98	99	80	79
8	AG 10004		L	2	% v/v	POST	A						
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	98	99	89	89
9	AG 10009		L	2	% v/v	POST	A						
10	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	99	97	99	90	68
10	AG 03019		L	0.5	% v/v	POST	A						
LSD (P=.05)								0.0	2.1	12.0	0.0	15.0	22.8
Standard Deviation								0.0	1.4	8.3	0.0	10.4	15.7
CV								0.0	1.59	10.1	0.0	13.33	22.29

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Weed Code									ANGR	CHEAL	AMASS	AMBEL	ABUTH
Crop Code													
Rating Data Type													
Rating Unit													
Rating Date													
Trt-Eval Interval													
# Subsamples, Dec.													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	94	65	91	79	49
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	97	83	95	96	95
2	AMS		WG	17	lb/100 gal	POST	A						
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	98	83	98	87	87
3	N-PAK AMS		L	2.5	% v/v	POST	A						
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	93	76	95	87	91
4	N-PAK AMS		L	5	% v/v	POST	A						
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	96	89	94	86	92
5	Class Act NG		L	2.5	% v/v	POST	A						
6	Untreated							0	0	0	0	0	0
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	97	91	96	91	92
7	AG 10003		L	2	% v/v	POST	A						
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	98	91	98	91	91
8	AG 10004		L	2	% v/v	POST	A						
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	98	93	96	97	93
9	AG 10009		L	2	% v/v	POST	A						
10	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0	96	79	93	93	76
10	AG 03019		L	0.5	% v/v	POST	A						
LSD (P=.05)								0.0	4.0	9.1	7.8	11.6	14.3
Standard Deviation								0.0	2.8	6.2	5.4	8.0	9.9
CV								0.0	3.2	8.34	6.28	9.95	12.91

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