

MSU Weed Science Research Program

AMS replacements for use with glyphosate

Trial ID: SOY07-11 Study Dir.: Sprague, Powell
Conducted: C-14E Crops Investigator: Christy Sprague

Date Planted: 5/10/2011 Row Spacing: 30 IN
Variety: Pioneer 92M61 No. of Reps: 4
Population: 155,000 % OM: 2.5
Soil Type: Silt Loam pH: 6.8
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fallow 2010- installed tile drainage, spring soil finish.
Fertilizer: None at planting.

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Lists weeds 1-6 and crop 1 (GLXMA SOYBEAN).

Application Description

Application Timing: POST
Date Treated: 6/15/2011
Time Treated: 8:15 AM
% Cloud Cover: 90
Air Temp., Unit: 59 F
% Relative Humidity: 76
Wind Speed/Unit/Dir: 4 mph E
Soil Temp., Unit: 63 F
Soil/Leaf Surface M: 5 4
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

Crop Name: GLXMA
Height (In.): 3-5"
Stage (L): V2

Weed Stage at Each Application

Weed 1 Name: ANGR Height (In.): 5-9" Stage (L): 5-7
Weed 2 Name: CHEAL Height (In.): 2" Stage (L): 9
Weed 3 Name: AMBEL Height (In.): 3-4" Stage (L): 6-16
Weed 4 Name: AMAPO Height (In.): 2-3" Stage (L): 4-6
Weed 5 Name: ABUTH Height (In.): 2-3" Stage (L): 4-6
Weed 6 Name: SINAR Height (In.): 7-11" Stage (L): flowering

Weed Density (plants/sq. ft.)

Table with 6 columns: Weed Name, Density. Lists weeds ANGR, CHEAL, AMAPO, AMBEL, ABUTH, SINAR and their densities.

Application Equipment

Table with 10 columns: Appl, Sprayer Type, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GPA, Carrier, PSI. Lists equipment for application A.

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Weed Code		ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code	GLXMA					
Rating Data Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	6/23/2011	6/23/2011	6/23/2011	6/23/2011	6/23/2011	6/23/2011
Trt-Eval Interval	8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A
# Subsamples, Dec.						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code						
1	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0.0	81.3	93.5	98.8	73.0	64.5
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0.0	92.3	91.8	99.0	78.3	74.3
2	N Pak Liquid AMS		L	2.5	% v/v	POST	A						
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0.0	93.0	99.0	99.0	79.0	73.8
3	Class Act NG		L	2.5	% v/v	POST	A						
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0.0	95.5	99.0	99.0	83.0	73.8
4	AG 8034		L	2	% v/v	POST	A						
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0.0	90.0	96.8	99.0	77.0	73.3
5	Class Act NG		L	1.25	% v/v	POST	A						
6	Untreated							0.0	0.0	0.0	0.0	0.0	0.0
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	1.3	92.3	98.5	99.0	76.3	66.3
7	AG 8034		L	1	% v/v	POST	A						
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0.0	90.0	98.0	99.0	73.3	58.8
8	AG 8034		L	0.5	% v/v	POST	A						
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	0.0	88.3	94.3	99.0	72.0	60.0
9	AG 03019		L	0.5	% v/v	POST	A						
LSD (P=.05)								1.22	8.20	6.67	0.24	7.35	12.95
Standard Deviation								0.83	5.62	4.57	0.17	5.04	8.85
CV								600.0	6.99	5.34	0.19	7.41	14.63

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	SINAR	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code						
Rating Data Type	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	6/23/2011	6/29/2011	6/29/2011	6/29/2011	6/29/2011	6/29/2011
Trt-Eval Interval	8 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A
# Subsamples, Dec.						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	SINAR	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
1	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	88.8	93.5	90.8	99.0	58.8	53.3
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	90.5	98.0	86.0	99.0	73.8	46.3
2	N Pak Liquid AMS		L	2.5	% v/v	POST	A						
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	89.5	99.0	94.3	99.0	72.5	65.0
3	Class Act NG		L	2.5	% v/v	POST	A						
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	88.0	99.0	99.0	99.0	63.8	61.3
4	AG 8034		L	2	% v/v	POST	A						
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	87.0	98.0	96.8	99.0	61.3	61.3
5	Class Act NG		L	1.25	% v/v	POST	A						
6	Untreated							0.0	0.0	0.0	0.0	0.0	0.0
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	86.0	98.0	99.0	99.0	67.5	50.0
7	AG 8034		L	1	% v/v	POST	A						
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	80.0	98.0	84.8	99.0	56.3	40.0
8	AG 8034		L	0.5	% v/v	POST	A						
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	87.3	98.0	82.3	93.0	57.5	41.3
9	AG 03019		L	0.5	% v/v	POST	A						
LSD (P=.05)								5.66	2.88	10.49	5.84	12.38	17.30
Standard Deviation								3.88	1.98	7.18	4.00	8.48	11.83
CV								5.01	2.28	8.82	4.58	14.94	25.45

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

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Weed Code	SINAR	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code						
Rating Data Type	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	6/29/2011	7/13/2011	7/13/2011	7/13/2011	7/13/2011	7/13/2011
Trt-Eval Interval	14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A
# Subsamples, Dec.						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	SINAR	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
1	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	83.5	93.0	92.5	99.0	67.5	58.8
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	93.3	97.5	81.8	99.0	78.8	64.3
2	N Pak Liquid AMS		L	2.5	% v/v	POST	A						
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	92.0	96.5	95.5	99.0	85.5	74.5
3	Class Act NG		L	2.5	% v/v	POST	A						
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	88.8	97.5	94.3	99.0	81.3	74.8
4	AG 8034		L	2	% v/v	POST	A						
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	87.3	96.0	94.5	99.0	77.5	60.0
5	Class Act NG		L	1.25	% v/v	POST	A						
6	Untreated							0.0	0.0	0.0	0.0	0.0	0.0
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	86.0	94.3	95.5	99.0	72.5	45.0
7	AG 8034		L	1	% v/v	POST	A						
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	82.5	96.8	88.5	99.0	67.5	47.5
8	AG 8034		L	0.5	% v/v	POST	A						
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	87.0	94.5	81.8	96.8	62.5	40.0
9	AG 03019		L	0.5	% v/v	POST	A						
LSD (P=.05)								9.87	4.10	10.76	2.19	9.45	16.71
Standard Deviation								6.76	2.81	7.37	1.50	6.48	11.45
CV								8.69	3.3	9.16	1.71	9.83	22.18

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Weed Code SINAR
Crop Code
Rating Data Type control
Rating Unit percent
Rating Date 7/13/2011
Trt-Eval Interval 28 DA-A
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	82.7
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	96.3
2	N Pak Liquid AMS		L	2.5	% v/v	POST	A	
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	96.0
3	Class Act NG		L	2.5	% v/v	POST	A	
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	96.3
4	AG 8034		L	2	% v/v	POST	A	
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	90.8
5	Class Act NG		L	1.25	% v/v	POST	A	
6	Untreated							0.0
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	82.5
7	AG 8034		L	1	% v/v	POST	A	
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	79.8
8	AG 8034		L	0.5	% v/v	POST	A	
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A	78.8
9	AG 03019		L	0.5	% v/v	POST	A	
LSD (P=.05)								9.83
Standard Deviation								6.66
CV								8.53

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