

MSU Weed Science Research Program

Comparison of Monsanto Glyphosate Formulations

Trial ID: SOY14-07
 Conducted: Quonset

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: 5/8/07 **Row Spacing:** 30 IN
Variety: Pioneer 91M91 **No. of Reps:** 4
Population: 155,000 Seeds/Acre **% OM:** 2.6
Soil Type: Loam **pH:** 7.0
Plot Size: 10 X 30 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel Plow, Spring Soil Finish X2
Fertilizer: Spread 300# of Urea/Acre on 3/18/07

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
2.	ANGR	mainly foxtail species	SETARIA SP.
3.	AMAPO	AMARANTH, POWELL	AMARANTHUS POWELLII S.WATS.
4.	CHEAL	COMMON LAMBSQUARTERS	CHENOPODIUM ALBUM L.
5.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

A
Application Timing: POST
Date Treated: 6/18/07
Time Treated: 1:45 pm
% Cloud Cover: 40
Air Temp., Unit: 91 F
% Relative Humidity: 25
Wind Speed/Unit/Dir: 8 mph SW
Soil Temp., Unit: 89 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 5

Crop Stage at Each Application

A
Crop Name: GLXMA
Height (In.): 6-9"
Stage (L): V4

Weed Stage at Each Application

A
Weed 1 Name: AMBEL
Height (In.): 1-6"
Stage (L): 6-many
Weed 2 Name: ANGR
Height (In.): 3-12"
Stage (L): 3-6
Weed 3 Name: AMAPO
Height (In.): 1-9"
Stage (L): 6-many
Weed 4 Name: CHEAL
Height (In.): 3-7
Stage (L): many
Weed 5 Name: ABUTH
Height (In.): 2-6"
Stage (L): 2-6

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Weed Density (plants/sq. ft.)

	1	2	3	4	5
Date:	7/9/07	7/9/07	7/9/07	7/9/07	7/9/07
Weed Name:	CHEAL	ABUTH	ANGR	AMAPO	AMBEL
Density:	3	1	3	4	8

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	28"	20"	100"	19	Water	27

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Weed Code		CHEAL	AMAPO	AMBEL	ABUTH	ANGR	CHEAL	AMAPO	AMBEL
Crop Code		GLXMA							
Rating Data Type		injury	control	control	control	control	control	control	control
Rating Unit		percent	percent	percent	percent	percent	percent	percent	percent
Rating Date		6/25/07	6/25/07	6/25/07	6/25/07	7/2/07	7/2/07	7/2/07	7/2/07
Trt-Eval Interval		7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code									
LSD (P=.05)								0.0	17.1	8.7	15.7	10.9	6.6	11.0	6.0	11.4
Standard Deviation								0.0	12.0	6.2	11.1	7.7	4.7	7.8	4.2	8.1
CV								0.0	23.11	6.85	14.99	10.39	5.15	10.49	4.7	9.43

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Weed Code	ABUTH	CHEAL	AMBEL	AMAPO	ABUTH
Crop Code					
Rating Data Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	7/2/07	7/11/07	7/11/07	7/11/07	7/11/07
Trt-Eval Interval	14 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	ABUTH	CHEAL	AMBEL	AMAPO	ABUTH
1	MON 76111	4.5	SL	0.56	lb ae/a	POST	A	97	69	96	93	96
1	AMS		WG	17	lb/100 gal	POST	A					
2	MON 76351	4.5	SL	0.56	lb ae/a	POST	A	98	73	93	95	97
2	AMS		WG	17	lb/100 gal	POST	A					
3	MON 76105	4.5	SL	0.56	lb ae/a	POST	A	98	63	94	97	99
3	AMS		WG	17	lb/100 gal	POST	A					
4	MON 76165	4.5	SL	0.56	lb ae/a	POST	A	99	56	96	95	99
4	AMS		WG	17	lb/100 gal	POST	A					
5	MON 79789	4.5	SL	0.56	lb ae/a	POST	A	96	63	95	97	98
5	AMS		WG	17	lb/100 gal	POST	A					
6	MON 76204	4.5	SL	0.56	lb ae/a	POST	A	99	58	90	98	99
6	AMS		WG	17	lb/100 gal	POST	A					
7	MON 79770	4.5	SL	0.56	lb ae/a	POST	A	99	69	91	93	98
7	AMS		WG	17	lb/100 gal	POST	A					
8	MON 79831	4.5	SL	0.56	lb ae/a	POST	A	98	63	96	96	98
8	AMS		WG	17	lb/100 gal	POST	A					
9	Untreated							0	0	0	0	0
10	MON 76111	4.5	SL	0.75	lb ae/a	POST	A	98	78	96	97	98
10	AMS		WG	17	lb/100 gal	POST	A					
11	MON 76351	4.5	SL	0.75	lb ae/a	POST	A	98	76	94	95	98
11	AMS		WG	17	lb/100 gal	POST	A					
12	MON 76105	4.5	SL	0.75	lb ae/a	POST	A	98	76	97	96	98
12	AMS		WG	17	lb/100 gal	POST	A					
13	MON 76165	4.5	SL	0.75	lb ae/a	POST	A	99	78	94	97	98
13	AMS		WG	17	lb/100 gal	POST	A					
14	MON 79789	4.5	SL	0.75	lb ae/a	POST	A	99	87	93	97	99
14	AMS		WG	17	lb/100 gal	POST	A					
15	MON 76204	4.5	SL	0.75	lb ae/a	POST	A	99	82	97	98	99
15	AMS		WG	17	lb/100 gal	POST	A					
16	MON 79770	4.5	SL	0.75	lb ae/a	POST	A	99	83	96	97	98
16	AMS		WG	17	lb/100 gal	POST	A					
17	MON 79831	4.5	SL	0.75	lb ae/a	POST	A	99	78	94	93	99
17	AMS		WG	17	lb/100 gal	POST	A					
18	MON 79614	5	SL	0.75	lb ae/a	POST	A	99	60	97	97	99
18	LI 700		L	0.25	% v/v	POST	A					
18	AMS		WG	17	lb/100 gal	POST	A					
19	MON 79616	4.2	SL	0.75	lb ae/a	POST	A	98	80	90	98	99
19	AMS		WG	17	lb/100 gal	POST	A					
20	MON 79685	4	SL	0.75	lb ae/a	POST	A	99	87	89	96	99
20	AMS		WG	17	lb/100 gal	POST	A					

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	ABUTH	CHEAL	AMBEL	AMAPO	ABUTH
								control	control	control	control	control
								percent	percent	percent	percent	percent
								7/2/07	7/11/07	7/11/07	7/11/07	7/11/07
								14 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A
	LSD (P=.05)							2.8	15.0	6.0	5.6	2.2
	Standard Deviation							2.0	10.6	4.3	4.0	1.6
	CV							2.14	15.47	4.79	4.35	1.68