

Comparison of glyphosate formulations for weed control

Trial ID: SOY18-16 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus T-15 Investigator: Christy Sprague

Planting Date: May-19-2016 **Row Spacing:** 30 IN
Variety: AG 2433 RR2 **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 2.5
Soil Type: L loam **pH:** 6.4
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed spring soil finished
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	lambsquarters, common	Chenopodium album
3	AMAPO	amaranth, Powell	Amaranthus powellii
4	AMBEL	ragweed, common	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

Application Timing: POST
Date Treated: Jun-21-2016
Time Treated: 7:45 AM
% Cloud Cover: 0
Air Temp., Unit: 64 F
% Relative Humidity: 74
Wind Speed/Unit/Dir: 3 mph SE
Soil Temp, Unit: 70 F
Leaf Moist/Dew Presence (Y/N): 5
Soil Moist: 5

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height: 7 "
Stage: V3

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height: 5-12 " (8)
Stage: 4-many
Weed 2 Name: CHEAL
Height: 2-9 " (5)
Stage: 9-many
Weed 3 Name: AMAPO
Height: 1-9 " (5)
Stage: 4-many
Weed 4 Name: AMBEL
Height: 2-8 " (5)
Stage: 6-many
Weed 5 Name: ABUTH
Height: 1-7 " (4)
Stage: 4-8L

Weed Density

	1	2	3	4	5
Date:	Jun-21-2016	Jun-21-2016	Jun-21-2016	Jun-21-2016	Jun-21-2016
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	2 FT2	1 FT2	1 FT2	1 FT2	4 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 mph	AIXR	11003	22 "	20 "	100 "	19 GAL/AC	WATER	30 PSI

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Comments:

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Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	GLXMA
Crop Code	GLXMA					GLXMA
Rating Date	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-12-2016
Rating Type	injury	control	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	21 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	GLXMA
1	MON 83518 - "A"	0.33 lb ae/a	A	0	92	50	95	96	73
1	AMS (N-PAK)	2 % v/v	A						0
2	MON 83519 - "B"	0.33 lb ae/a	A	0	96	56	88	86	69
2	AMS (N-PAK)	2 % v/v	A						0
3	MON 83520 - "C"	0.33 lb ae/a	A	0	100	64	88	90	71
3	AMS (N-PAK)	2 % v/v	A						0
4	MON 76968 - "D"	0.33 lb ae/a	A	0	93	59	90	95	65
4	AMS (N-PAK)	2 % v/v	A						0
5	MON 78623 - "E"	0.33 lb ae/a	A	0	91	63	91	100	70
5	AMS (N-PAK)	2 % v/v	A						0
6	Roundup PowerMax	0.33 lb ae/a	A	0	95	59	91	95	68
6	AMS (N-PAK)	2 % v/v	A						0
7	Untreated			0	0	0	0	0	0
8	MON 83518 - "A"	0.66 lb ae/a	A	0	100	75	100	91	93
8	AMS (N-PAK)	2 % v/v	A						0
9	MON 83519 - "B"	0.66 lb ae/a	A	0	100	70	99	94	96
9	AMS (N-PAK)	2 % v/v	A						0
10	MON 83520 - "C"	0.66 lb ae/a	A	0	100	68	100	95	90
10	AMS (N-PAK)	2 % v/v	A						0
11	MON 76968 - "D"	0.66 lb ae/a	A	0	99	74	100	100	89
11	AMS (N-PAK)	2 % v/v	A						0
12	MON 78623 - "E"	0.66 lb ae/a	A	0	99	63	98	100	83
12	AMS (N-PAK)	2 % v/v	A						0
13	Roundup PowerMax	0.66 lb ae/a	A	0	100	84	100	99	94
13	AMS (N-PAK)	2 % v/v	A						0
14	MON 83518 - "A"	1 lb ae/a	A	0	100	87	100	100	90
14	AMS (N-PAK)	2 % v/v	A						0
15	MON 83519 - "B"	1 lb ae/a	A	0	100	81	100	100	100
15	AMS (N-PAK)	2 % v/v	A						0

Missing data estimates are included in columns: Average=3,9

Could not calculate LSD (% mean diff) for columns 1,7 because error mean square = 0.

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Pest Code		ANGR	CHEAL	AMAPO	AMBEL	ABUTH		
Crop Code	GLXMA						GLXMA	
Rating Date	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-12-2016	
Rating Type	injury	control	control	control	control	control	injury	
Rating Unit	percent	percent	percent	percent	percent	percent	percent	
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	21 DA-A	
Number of Decimals	0	0	0	0	0	0	0	

Trt No.	Treatment Name	Rate	Appl Code							
		Rate Unit								
16	MON 83520 - "C"	1 lb ae/a	A	0	100	82	100	100	93	0
16	AMS (N-PAK)	2 % v/v	A							
17	MON 76968 - "D"	1 lb ae/a	A	0	99	93	100	96	93	0
17	AMS (N-PAK)	2 % v/v	A							
18	MON 78623 - "E"	1 lb ae/a	A	0	99	62	100	100	99	0
18	AMS (N-PAK)	2 % v/v	A							
19	Roundup PowerMax	1 lb ae/a	A	0	100	95	100	99	94	0
19	AMS (N-PAK)	2 % v/v	A							
	LSD P=.05			.	3.5	11.0	6.9	10.5	10.7	.
	Standard Deviation			0.0	2.5	7.8	4.8	7.4	7.5	0.0
	CV			0.0	2.68	11.49	5.3	8.12	9.36	0.0

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Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code					
Rating Date	Jul-12-2016	Jul-12-2016	Jul-12-2016	Jul-12-2016	Jul-12-2016
Rating Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
		Rate Unit						
1	MON 83518 - "A"	0.33 lb ae/a	A	93	43	97	90	57
1	AMS (N-PAK)	2 % v/v	A					
2	MON 83519 - "B"	0.33 lb ae/a	A	98	51	95	72	54
2	AMS (N-PAK)	2 % v/v	A					
3	MON 83520 - "C"	0.33 lb ae/a	A	98	57	95	84	65
3	AMS (N-PAK)	2 % v/v	A					
4	MON 76968 - "D"	0.33 lb ae/a	A	94	54	95	79	59
4	AMS (N-PAK)	2 % v/v	A					
5	MON 78623 - "E"	0.33 lb ae/a	A	97	50	98	85	58
5	AMS (N-PAK)	2 % v/v	A					
6	Roundup PowerMax	0.33 lb ae/a	A	94	58	96	85	55
6	AMS (N-PAK)	2 % v/v	A					
7	Untreated			0	0	0	0	0
8	MON 83518 - "A"	0.66 lb ae/a	A	100	76	100	79	80
8	AMS (N-PAK)	2 % v/v	A					
9	MON 83519 - "B"	0.66 lb ae/a	A	100	67	100	82	87
9	AMS (N-PAK)	2 % v/v	A					
10	MON 83520 - "C"	0.66 lb ae/a	A	100	69	100	83	90
10	AMS (N-PAK)	2 % v/v	A					
11	MON 76968 - "D"	0.66 lb ae/a	A	100	73	100	90	80
11	AMS (N-PAK)	2 % v/v	A					
12	MON 78623 - "E"	0.66 lb ae/a	A	98	58	100	90	80
12	AMS (N-PAK)	2 % v/v	A					
13	Roundup PowerMax	0.66 lb ae/a	A	100	86	100	90	90
13	AMS (N-PAK)	2 % v/v	A					
14	MON 83518 - "A"	1 lb ae/a	A	100	93	100	90	83
14	AMS (N-PAK)	2 % v/v	A					
15	MON 83519 - "B"	1 lb ae/a	A	100	87	100	90	90
15	AMS (N-PAK)	2 % v/v	A					

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Crop Code					
Rating Date	Jul-12-2016	Jul-12-2016	Jul-12-2016	Jul-12-2016	Jul-12-2016
Rating Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code					
		Rate Unit						
16	MON 83520 - "C"	1 lb ae/a	A	100	86	100	90	84
16	AMS (N-PAK)	2 % v/v	A					
17	MON 76968 - "D"	1 lb ae/a	A	100	96	100	88	85
17	AMS (N-PAK)	2 % v/v	A					
18	MON 78623 - "E"	1 lb ae/a	A	99	52	100	90	90
18	AMS (N-PAK)	2 % v/v	A					
19	Roundup PowerMax	1 lb ae/a	A	99	97	100	88	90
19	AMS (N-PAK)	2 % v/v	A					
	LSD P=.05			4.2	13.5	4.1	13.5	11.6
	Standard Deviation			3.0	9.5	2.9	9.5	8.2
	CV			3.21	14.43	3.13	11.68	11.32