

Interaction of Glyphosate Salt by Adjuvant.

Project Code: 04-11A-E80 Location: Belleville Reseach Center

Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 8-16-04

Objective:

Determine the effects of adjuvants on two glyphosate salts.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. AMATA	waterhemp, common	Amaranthus rudis Sauer
3. AMBEL	ragweed, common	Ambrosia artemisiifolia L.

Crop 1:	GLXMA soybean	Variety:	AG 4403 RR
Planting Method:	Seeded	Planting Date:	6-14-04
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	26 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	ZEAMX, 2003				

Field Prep./Maintenance: N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A and 3 ton/A lime

Soil Name:	Weir	% OM:	2	pH:	5.6	CEC:	11
Texture:	Silt loam	Fert. Level:	P1: 75 LB/A,	K:	348 LB/A		

APPLICATION DESCRIPTION

	A
Application Date:	7-16-04
Time of Day:	11:00
Application Method:	Spray
Application Timing:	8-12"W
Applic. Placement:	BROFOL

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GLXMA V4
Height, Unit:	8-9 IN

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code:	SETFA
Stage(leaves):	4-5
Height(inches):	8-9
Density:	High
Weed 2 Code:	AMATA
Stage(leaves):	8-12
Height(inches):	6-10
Density:	High
Weed 3 Code:	AMBEL
Stage(leaves):	6-9
Height(inches):	5-9
Density:	Low

APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 sprayer
Operating Pressure:	40 PSI
Nozzle Type:	Flat fan
Nozzle Size:	TT 110015
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	12.5 GPA

NOTES:

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Weed Code	SETFA	SETFA	AMATA	AMATA	AMBEL	AMBEL
Crop Code						
Rating Data Type	Injury	Injury	Injury	Injury	Injury	Injury
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	7-30-04	8-13-04	7-30-04	8-13-04	7-30-04	8-13-04
Trt-Eval Interval	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	ATR-0401	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	97	93	80	87	87	96
2	ATR-0401	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	72	85	91	98
2	ATR-0403	100	LIQ	0.375	% V/V	0.375	% V/V	8-12"W	A						
3	ATR-0401	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	73	83	88	99
3	ATR-0404	100	LIQ	0.375	% V/V	0.375	% V/V	8-12"W	A						
4	ATR-0401	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	73	78	87	96
4	ATR-0405	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
5	ATR-0401	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	95	98	68	77	73	93
5	ATR-0406	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
6	ATR-0401	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	97	98	68	73	92	98
6	ATR-0407	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
7	ATR-0401	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	94	96	78	85	92	98
7	ATR-0408	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
8	ATR-0402	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	92	95	80	80	83	92
9	ATR-0402	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	80	84	85	98
9	ATR-0403	100	LIQ	0.375	% V/V	0.375	% V/V	8-12"W	A						
10	ATR-0402	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	75	77	89	98
10	ATR-0404	100	LIQ	0.375	% V/V	0.375	% V/V	8-12"W	A						
11	ATR-0402	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	97	98	73	70	82	96
11	ATR-0405	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
12	ATR-0402	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	73	76	84	95
12	ATR-0406	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
13	ATR-0402	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	67	68	80	95
13	ATR-0407	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
14	ATR-0402	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"W	A	98	98	80	88	95	99
14	ATR-0408	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
15	NONTREATED									0	0	0	0	0	0
LSD (P=.05)										5.4	3.9	10.2	9.8	8.9	3.5
Replicate F										4.996	3.052	2.223	4.501	0.117	3.961
Replicate Prob(F)										0.0139	0.0633	0.1270	0.0202	0.8901	0.0306
Treatment F										184.067	344.666	31.599	40.319	55.975	425.412
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Agrilience.
2. CI and WC 14 and 28 DAT.
3. DA-A = Days after 8-12"W application.