

Glyphosate Compatibility with Foliar Micronutrients - Agrilience.

Project Code: 06-21N-W150 Location: Belleville Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 8-4-06

Objective:

Determine the efficacy of glyphosate applied with commercial and experimental foliar nutrient products in soybean.

Weed Code	Common Name	Scientific Name
1. ABUTH	velvetleaf	Abutilon theophrasti Medicus
2. AMBTR	ragweed, giant	Ambrosia trifida L.
3. XANST	cocklebur, common	Xanthium strumarium L.
4. SETFA	foxtail, giant	Setaria faberi Herrm.

Crop 1: GLXMA soybean Variety: Asgrow 4403 RR
 Planting Method: Seeded Planting Date: 5-30-06
 Rate: 75 lb/A Depth: 1.0 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Reps: 3
 Tillage Type: Reduced-Till Study Design: Randomized complete block
 Previous Crop, Year: ZEAMX, 2005
 Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

Soil Name: Ebbert % OM: 2.7 pH: 6.2 CEC: 14
 Texture: Silt loam Fert. Level: P1: 115 LB/A, K: 500 LB/A

APPLICATION DESCRIPTION

A
 Application Date: 6-27-06
 Time of Day: 10:00
 Application Method: Spray
 Application Timing: 8"W
 Applic. Placement: BROFOL
 Air Temp., Unit: 70 F
 % Relative Humidity: 82
 Wind Velocity, Unit: 5 MPH
 Soil Moisture: NORMAL
 % Cloud Cover: 35

CROP STAGE AT EACH APPLICATION

A
 Crop 1 Code, Stage: GLXMA V3
 Height, Unit: 9-11 IN

WEED STAGE AT EACH APPLICATION

A
 Weed 1 Code: ABUTH
 Stage (leaves): 3-6
 Height (inches): 5-8
 Density: Medium
 Weed 2 Code: AMBTR
 Stage (leaves): 4-8
 Height (inches): 9-11
 Density: Medium
 Weed 3 Code: XANST
 Stage (leaves): 5-8
 Height (inches): 6-10
 Density: High
 Weed 4 Code: SETFA
 Stage (leaves): 4-6
 Height (inches): 6-8
 Density: High

APPLICATION EQUIPMENT

A
 Appl. Equipment: CO2 sprayer
 Operating Pressure: 40 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 110015
 Boom Length, Unit: 7.5 FT
 Spray Volume, Unit: 10 GPA

NOTES:

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Weed Code										ABUTH	ABUTH	AMBTR	AMBTR	XANST	XANST
Crop Code										GLXMA	GLXMA				
Rating Data Type										Injury	Injury	Control	Control	Control	Control
Rating Unit										Percent	Percent	Percent	Percent	Percent	Percent
Rating Date										7-11-06	7-25-06	7-11-06	7-25-06	7-11-06	7-25-06
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	GLXMA Injury Percent	GLXMA Injury Percent	ABUTH Control Percent	ABUTH Control Percent	AMBTR Control Percent	AMBTR Control Percent	XANST Control Percent	XANST Control Percent
1	NONTREATED									0	0	0	0	0	0	0	0
2	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	38	42	60	67	99	99
3	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	78	80	90	89	99	98
3	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A								
4	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	37	50	48	55	96	95
4	MAX-IN FOR BEANS	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
5	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	38	57	50	73	98	92
5	MAX-IN FOR BEANS	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
5	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A								
6	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	30	38	42	48	96	96
6	AGM 05001	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
7	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	60	63	84	77	98	96
7	AGM 05001	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
7	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A								
8	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	42	33	40	50	96	91
8	AGM 06013	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
9	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	40	52	55	60	98	97
9	AGM 06013	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
9	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A								
10	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	40	45	60	72	99	99
10	AGM 06014	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
11	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	63	67	70	82	98	99
11	AGM 06014	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
11	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A								
12	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	32	33	43	42	85	85
12	AGM 06005	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
13	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	35	38	45	43	92	89
13	AGM 06005	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
13	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A								
14	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	32	32	35	45	91	87
14	AGM 05032	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
15	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	0	0	22	30	42	48	91	88
15	AGM 05032	100	LIQ	2.5	% v/v	1	qt/a	8"W	A								
15	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A								
LSD (P=05)										0.0	0.0	10.1	15.7	15.4	20.3	5.7	7.1
Replicate F										0.000	0.000	0.427	1.217	3.626	3.163	1.032	1.781
Replicate Prob(F)										1.0000	1.0000	0.6563	0.3112	0.0398	0.0577	0.3694	0.1870
Treatment F										0.000	0.000	27.215	12.280	16.250	9.594	158.702	100.183
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code	SETFA	SETFA
Crop Code		
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Date	7-11-06	7-25-06
Trt-Eval Interval	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code		
1	NONTREATED									0	0
2	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	99
3	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	98
3	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A		
4	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	98
4	MAX-IN FOR BEANS	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
5	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	98
5	MAX-IN FOR BEANS	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
5	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A		
6	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	98
6	AGM 05001	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
7	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	98
7	AGM 05001	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
7	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A		
8	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	99
8	AGM 06013	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
9	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	99
9	AGM 06013	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
9	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A		
10	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	99
10	AGM 06014	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
11	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	99	99
11	AGM 06014	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
11	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A		
12	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	96	96
12	AGM 06005	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
13	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	92	95
13	AGM 06005	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
13	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A		
14	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	97	95
14	AGM 05032	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
15	ROUNDUP W-MAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	8"W	A	98	96
15	AGM 05032	100	LIQ	2.5	% v/v	1	qt/a	8"W	A		
15	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	8"W	A		
LSD (P=.05)										1.0	3.8
Replicate F										1.556	2.410
Replicate Prob(F)										0.2288	0.1082
Treatment F										5021.630	374.550
Treatment Prob(F)										0.0001	0.0001

Trial Comments

1. Protocol: Agrilience.
2. Ratings: CI/WC 14 + 28 DAT.
3. DA-A = Days after 8"W application.
4. Not harvested.