

## Agrilience Glyphosate Adjuvant Study.

Project Code: 03-10C-E90      Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country:            Belleville            IL 62221 USA  
 Trial Status: Final                    Updated:            9-2-03

**Objective:**

Evaluate the efficacy of Roundup WeatherMax as influenced by additions of Agrilience adjuvant systems.

Weed Code	Common Name	Scientific Name
1. XANST	cocklebur, common	Xanthium strumarium L.
2. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
3. ECHCG	barnyardgrass	Echinochloa crus-galli (L.) Beauv.

Crop 1:	GLXMA soybean	Variety:	Asgrow 4403 RR
Planting Method:	Seeded	Planting Date:	6-20-03
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	24 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	ZEAMX, 2002				

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 200 LB/A

Soil Name:	Weir	% OM:	2.0	pH:	6.1	CEC:	11
Texture:	Silt loam	Fert. Level:	P1: 65 LB/A, K: 240 LB/A				

**APPLICATION DESCRIPTION**

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Application Date:	7-17-03
Time of Day:	12:00
Application Method:	Spray
Application Timing:	6-8"W
Applic. Placement:	BROFOL
Air Temp., Unit:	84 F
% Relative Humidity:	50
Wind Velocity, Unit:	3 MPH
Soil Moisture:	BELNOR
% Cloud Cover:	0

**CROP STAGE AT EACH APPLICATION**

A

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

**WEED STAGE AT EACH APPLICATION**

A

Weed 1 Code:	XANST
Stage(leaves):	5-10
Height(inches):	6-12
Density:	Medium
Weed 2 Code:	AMBEL
Stage(leaves):	4-8
Height(inches):	6-8
Density:	Low
Weed 3 Code:	ECHCG
Stage(leaves):	3-7
Height(inches):	5-10
Density:	Low

## APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 sprayer
Operating Pressure:	40 PSI
Nozzle Type:	Flat fan
Nozzle Size:	8002
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

## NOTES:

Not harvested.

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Weed Code		XANST	XANST	AMBEL	AMBEL	ECHCG	ECHCG
Crop Code	GLXMA						
Rating Data Type	Injury	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	7-29-03	8-12-03	7-29-03	8-12-03	7-29-03	8-12-03	7-29-03
Trt-Eval Interval	12 DA-A	26 DA-A	12 DA-A	26 DA-A	12 DA-A	26 DA-A	12 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	NONTREATED									0	0	0	0	0	0
2	ROUNDUP W-MAX	4.5	SL	0.77	LB AE/A	22	FL OZ/A	6-8"W	A	0	99	99	98	99	99
3	ROUNDUP W-MAX	4.5	SL	0.77	LB AE/A	22	FL OZ/A	6-8"W	A	0	99	99	99	99	98
3	N-PAK AMS	100	LIQ	5.0	% V/V	5	% V/V	6-8"W	A						
4	ROUNDUP W-MAX	4.5	SL	0.77	LB AE/A	22	FL OZ/A	6-8"W	A	0	99	99	99	99	99
4	ALLIANCE	100	LIQ	1.25	% V/V	1.25	% V/V	6-8"W	A						
5	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	98	96	87	78	13
6	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	98	99	90	92	47
6	N-PAK AMS	100	LIQ	5.0	% V/V	5	% V/V	6-8"W	A						
7	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	99	96	91	85	48
7	ALLIANCE	100	LIQ	1.25	% V/V	1.25	% V/V	6-8"W	A						
8	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	98	99	89	82	45
8	PLACEMENT	100	LIQ	2.0	FL OZ/A	2.0	FL OZ/A	6-8"W	A						
8	PREMIXED														
8	ALLIANCE	100	LIQ	1.25	% V/V	1.25	% V/V	6-8"W	A						
9	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	99	99	89	88	45
9	ALLIANCE	100	LIQ	1.0	% V/V	1	% V/V	6-8"W	A						
10	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	98	96	96	90	23
10	ALLIANCE	100	LIQ	0.75	% V/V	0.75	% V/V	6-8"W	A						
11	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	96	93	95	93	30
11	PLACEMENT	100	LIQ	2.0	FL OZ/A	2.0	FL OZ/A	6-8"W	A						
11	PREMIXED														
11	ALLIANCE	100	LIQ	0.75	% V/V	0.75	% V/V	6-8"W	A						
12	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	97	93	92	80	27
12	PLACEMENT PROPAK	100	LIQ	1.0	% V/V	1	% V/V	6-8"W	A						
13	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	97	93	88	87	30
13	PLACEMENT PROPAK	100	LIQ	1.0	% V/V	1	% V/V	6-8"W	A						
13	PREMIXED														
13	ALLIANCE	100	LIQ	1.0	% V/V	1	% V/V	6-8"W	A						
14	ROUNDUP W-MAX	4.5	SL	0.193	LB AE/A	5.5	FL OZ/A	6-8"W	A	0	96	90	87	82	35
14	ALLIANCE	100	LIQ	2.0	% V/V	2	% V/V	6-8"W	A						

Weed Code		XANST	XANST	AMBEL	AMBEL	ECHCG	ECHCG
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code							
LSD (P=.05)				0.0		2.1		5.2		5.6		8.6		13.4		8.3
Replicate F				0.000		4.593		2.123		2.084		0.381		2.167		2.053
Replicate Prob(F)				1.0000		0.0196		0.1400		0.1448		0.6869		0.1348		0.1487
Treatment F				0.000		1295.522		211.925		170.075		69.794		47.248		148.681
Treatment Prob(F)				1.0000		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001

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#### Trial Comments

1. Protocol: Agrilience.
2. Ratings: CI and WC 14 and 28 DAT.
3. Premix Placement and Placement ProPac with glyphosate, prior to water, in trt 8, 11, and 13.
4. DA-A = days after 6-8"W application.