

Precision Labs Glyphosate Adjuvant Study.

Project Code: 03-10C-ME60 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 9-8-03

Objective:

Evaluate experimental adjuvant products when used with an "unloaded" glyphosate formulation (Roundup Custom).

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

CROP STAGE AT EACH APPLICATION

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

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code: XANST
 Stage(leaves): 9-10
 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:	TT 110015
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	10 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	7-31-03	7-31-03	8-14-03	7-31-03	8-14-03	7-31-03	8-14-03
Trt-Eval Interval	14 DA-A	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	NONTREATED									0	0	0	0	0	0	
2	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	99	99	93	96	43	40
2	PL 746	100 LIQ		0.25 % V/V		0.25 % V/V		6-8"W A								
3	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	93	96	93	89	43	42
3	PL 746	100 LIQ		0.25 % V/V		0.25 % V/V		6-8"W A								
3	PL 432	100 LIQ		4.0 FL OZ/100 GAL		4 FL OZ/100 GAL		6-8"W A								
4	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	99	99	99	95	57	57
4	PL 746	100 LIQ		0.25 % V/V		0.25 % V/V		6-8"W A								
4	PL 332	100 DRY		10 OZ WT/100 GAL		10 OZ WT/100 GAL		6-8"W A								
5	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	95	99	95	93	40	37
5	PX7142	100 DRY		1.75 LB/100 GAL		1.75 LB/100 GAL		6-8"W A								
6	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	99	99	99	95	57	45
6	PX7143	100 DRY		2.0 LB/100 GAL		2 LB/100 GAL		6-8"W A								
7	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	96	95	93	95	37	37
7	PX7144	100 DRY		4.55 LB/100 GAL		4.55 LB/100 GAL		6-8"W A								
8	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	99	98	99	94	60	53
8	PX7145	100 DRY		3.0 LB/100 GAL		3 LB/100 GAL		6-8"W A								
9	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	98	98	98	96	47	33
9	PX7146	100 DRY		1.0 LB/100 GAL		1 LB/100 GAL		6-8"W A								
10	ROUNDUP CUSTOM	4 SL		0.375 LB AE/A		12 FL OZ/A		6-8"W A		0	93	97	92	95	40	30
10	PX7147	100 DRY		1.0 LB/100 GAL		1 LB/100 GAL		6-8"W A								
LSD (P=.05)										0.0	3.9	3.5	5.1	4.6	8.0	12.1
Replicate F										0.000	0.106	0.223	1.646	2.384	0.153	4.097
Replicate Prob(F)										1.0000	0.9004	0.8026	0.2206	0.1206	0.8596	0.0342
Treatment F										0.000	559.915	685.750	311.091	374.736	39.339	14.634
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: Precision Labs.
2. Ratings: CI and WC 14 and 28 DAT.
3. Blanket application of Roundup WeatherMax early (1-3"W) to promote morningglory growth.
4. DA-A = days after 6-8"W application.