

## Soybean Yield Effects with Cobra.

Project Code: 03-2A-MMW40 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA  
 Trial Status: Final Updated: 10-27-03

## Objective:

Evaluate Cobra and Roundup tankmixes on weed control and soybean yield when applied in a total POST program.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. XANST	cocklebur, common	Xanthium strumarium L.
3. AMBEL	ragweed, common	Ambrosia artemisiifolia L.

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: 28 FT Reps: 6  
 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 150 LB/A

Soil Name: Weir % OM: 1.5 pH: 6.4 CEC: 10  
 Texture: Silt loam Fert. Level: P1: 81 LB/A, K: 274 LB/A

## APPLICATION DESCRIPTION

A

Application Date: 8-4-03  
 Time of Day: 13:00  
 Application Method: Spray  
 Application Timing: R1  
 Applic. Placement: BROFOL  
 Air Temp., Unit: 84 F  
 % Relative Humidity: 54  
 Wind Velocity, Unit: 3 MPH  
 Soil Moisture: ABONOR

## CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: GLXMA R1  
 Height, Unit: 12-16 IN

## WEED STAGE AT EACH APPLICATION

A

Weed 1 Code: SETFA  
 Stage(leaves): 5-8  
 Height(inches): 8-16  
 Density: Medium

Weed 2 Code: XANST  
 Stage(leaves): 5-10  
 Height(inches): 8-20  
 Density: Medium

Weed 3 Code: AMBEL  
 Stage(leaves): 5-10  
 Height(inches): 8-20  
 Density: Medium

## 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:	20 GPA

## NOTES:

Harvested Oct-22-03, (2) 30 inch rows by 25 ft.

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Weed Code	GLXMA	GLXMA	GLXMA	GLXMA	SETFA	SETFA	XANST	XANST	AMBEL	AMBEL
Crop Code	Yield	Injury	Injury	Pods	Control	Control	Control	Control	Control	Control
Rating Data Type	bu/A	Percent	Percent	/ Plant	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit										
Rating Date	10-22-03	8-7-03	8-14-03	10-16-03	8-7-03	8-14-03	8-7-03	8-14-03	8-7-03	8-14-03
Trt-Eval Interval		3 DA-A	10 DA-A	73 DA-A	3 DA-A	10 DA-A	3 DA-A	10 DA-A	3 DA-A	10 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Yield	GLXMA Injury	GLXMA Injury	GLXMA Pods	SETFA Control	SETFA Control	XANST Control	XANST Control	AMBEL Control	AMBEL Control
1	NONTREATED									10	0	0	9	0	0	0	0	0	0
2	COBRA	2	EC	0.1	LB A/A	6.4	FL OZ/A	R1	A	21	8	7	11	33	99	58	99	67	99
2	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	R1	A										
2	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	R1	A										
2	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	% V/V	R1	A										
3	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	R1	A	20	0	0	14	30	99	36	99	30	95
3	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	R1	A										
3	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	% V/V	R1	A										
4	STELLAR	3.1	EC	0.05	LB A/A	2.06	FL OZ/A	R1	A	21	9	8	12	38	99	55	99	70	99
4	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	R1	A										
4	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	R1	A										
4	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	% V/V	R1	A										
LSD (P=.05)										4.1	1.8	1.3	4.5	6.6	0.0	8.5	0.0	4.9	1.2
Replicate F										5.395	0.516	1.903	0.596	2.314	0.000	1.368	0.000	1.842	1.000
Replicate Prob(F)										0.0049	0.7602	0.1535	0.7039	0.0954	1.0000	0.2907	1.0000	0.1650	0.4509
Treatment F										15.245	67.258	114.194	1.490	59.143	0.000	89.058	0.000	416.842	14853.793
Treatment Prob(F)										0.0001	0.0001	0.0001	0.2577	0.0001	1.0000	0.0001	1.0000	0.0001	0.0001

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Trial Comments

1. Protocol: Valent.
2. Ratings: CI and WC 3 and 10 DAT.
3. Inspect 20 plants per plot and determine pod number per plant.
4. Yield, must.
5. DA-A = days after R1 application.