Evaluation of Aim as a Preharvest Aid.

02-21M-M20

OBJECTIVE: Determine the effectiveness of Aim vs Gramoxone for use as a harvest aid in soybean.

SUMMARY: Gramoxone Max at 10.7 oz/A controlled 100% of common waterhemp and common cocklebur by 7 days after treatment. Aim at 1 or 1.4 oz/A controlled 50% of common waterhemp and 80% of common cocklebur at 7 days after treatment. Tank mixing Aim at 1.4 oz with Gramoxone Max at 6.7 oz resulted in complete weed control similar to Gramoxone Max applied alone at 10.7 oz. There were no significant differences in soybean yield between nontreated plots and plots that received a harvest aid herbicide application.

HERBICIDES	WEEDS	CROP
AIM 2 EW	cocklebur, common	soybean
GRAMOXONE MAX 3 SL	waterhemp, common	

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

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Project Code: 02-21M-M20 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final **Updated:** 10-29-02

Objective:
Determine the effectiveness of Aim vs Gramoxone for use as a harvest aid in soybean.

Weed Code	Common Name	Scientific Name
1.	AMATA waterhemp, common	Amaranthus rudis Sauer
2.	XANST cocklebur, common	Xanthium strumarium L.

Crop 1: GLXMA soybean **Variety:** Asgrow 4602 RR
Planting Method: Seeded **Planting Date:** 6-3-02
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, 2001

Field Prep./Maintenance: N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Name: Ebbert **% OM:** 1.4 **pH:** 5.7 **CEC:** 14
Texture: Silt loam **Fert. Level:** P1: 97 LB/A, K: 291 LB/A

APPLICATION DESCRIPTION

	A
Application Date:	10-3-02
Time of Day:	11:00
Application Method:	Spray
Application Timing:	R7
Applic. Placement:	BROFOL
Wind Velocity, Unit:	0 MPH
Soil Moisture:	NORMAL

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GLXMA R7
Height, Unit:	38 IN

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code:	AMATA
Stage(leaves):	10+
Height(inches):	24-40
Density:	Medium
Weed 2 Code:	XANST
Stage(leaves):	10+
Height(inches):	36-60
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:
Application timing changed from R5 to R7.
Harvested Oct-22-02, (2) 30 inch rows by 27 ft.

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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	AMATA Control	AMATA Control	XANST Control	XANST Control
	Weed Code												AMATA	AMATA	XANST	XANST
	Crop Code									GLXMA	GLXMA	GLXMA				
	Rating Data Type									Yield	Injury	Injury	Control	Control	Control	Control
	Rating Unit									bu/A	Percent	Percent	Percent	Percent	Percent	Percent
	Rating Date									10-22-02	10-6-02	10-10-02	10-6-02	10-10-02	10-6-02	10-10-02
	Trt-Eval Interval										3 DA-A	7 DA-A	3 DA-A	7 DA-A	3 DA-A	7 DA-A
1	NONTREATED									45	0	0	0	0	50	50
2	GRAMOXONE MAX	3	SL	0.25	LB A/A	10.7	OZ/A	R7	A	45	0	0	87	100	90	100
2	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	R7	A							
3	AIM	2	EW	0.0156	LB A/A	1	OZ/A	R7	A	48	0	0	50	50	50	80
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	R7	A							
4	AIM	2	EW	0.0219	LB A/A	1.4	OZ/A	R7	A	43	0	0	50	50	60	80
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	R7	A							
5	GRAMOXONE MAX	3	SL	0.156	LB A/A	6.66	OZ/A	R7	A	49	0	0	90	100	90	100
5	AIM	2	EW	0.0219	LB A/A	1.4	OZ/A	R7	A							
5	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	R7	A							
6	NONTREATED									45	0	0	0	0	50	50
LSD (P=.05)										8.8	0.0	0.0	4.3	0.0	12.9	0.0
Replicate F										2.743	0.000	0.000	1.000	0.000	1.000	0.000
Replicate Prob(F)										0.1123	1.0000	1.0000	0.4019	1.0000	0.4019	1.0000
Treatment F										0.736	0.000	0.000	848.200	0.000	23.400	0.000
Treatment Prob(F)										0.6133	1.0000	1.0000	0.0001	1.0000	0.0001	1.0000

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Trial Comments

1. Protocol: FMC.
2. Blanket postemergence application of Roundup Ultra Max + AMS at 0.375 lbae/A + 2.0 %v/v applied at 4 inch weed height, 10 ft wide to all plots including the nontreated.
3. DA-A = days after R7 application.
4. Killing frost 11 days after application, thus no 14 DA-A ratings.