

Morningglory Control in Soybean with S-3153, FirstRate, and Aim.

02-10B-W40

OBJECTIVE: Evaluate flufenpyr tank-mixed with glyphosate for morningglory control in a Roundup Ready soybean system.

SUMMARY: Soybean injury was 3% for treatments containing S-3153 and 5% for treatments containing Aim at both 7 and 14 days after treatment (DAT). However, all crop injury had diminished by 28 DAT. The addition of S-3153, FirstRate, or Aim to Roundup UltraMax increased control of morningglory species at all timings, with levels of control at 56 DAT ranging from 77 to 95% compared to 60% for Roundup UltraMax alone. The addition of S-3153 or Aim to Roundup UltraMax also increased control of velvetleaf at all timings by 18 to 27%, while the addition of FirstRate reduced control of velvetleaf compared to Roundup UltraMax alone at both 7 and 14 DAT. Complete control (99%) of common cocklebur was observed for all treatments. No differences were observed in the level of weed control provided by S-3153 at 0.39 oz/A compared to the 0.5 oz/A rate.

HERBICIDES

AIM 2 EW
 FIRSTRATE 84 WG
 ROUNDUP ULTRA MAX 3.7 SL
 S-3153 57.6 WG

WEEDS

cocklebur, common
 morningglory, ivyleaf
 morningglory, pitted
 morningglory, species
 velvetleaf

CROP

soybean

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PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Morningglory Control in Soybean with S-3153, FirstRate, and Aim.

Project Code: 02-10B-W40 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 10-31-02

Objective:

Evaluate flufenpyr tank-mixed with glyphosate for morningglory control in a Roundup Ready soybean system.

Weed Code	Common Name	Scientific Name
1. IPOSS	morningglory, species	Ipomoea sp.
2. ABUTH	velvetleaf	Abutilon theophrasti Medicus
3. XANST	cocklebur, common	Xanthium strumarium L.
4. IPOLA	morningglory, pitted	Ipomoea lacunosa L.
5. IPOHE	morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.

Crop 1:	GLXMA soybean	Variety:	Asgrow 4602RR
Planting Method:	Seeded	Planting Date:	6-4-02
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	25 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	ZEAMX, 2001				

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 150 LB/A

Soil Name:	Weir	% OM:	1.6	pH:	6.3	CEC:	12
Texture:	Silt loam	Fert. Level:	P1: 82 LB/A, K: 274 LB/A				

APPLICATION DESCRIPTION

A

Application Date:	7-1-02
Time of Day:	10:00
Application Method:	Spray
Application Timing:	4"MG
Applic. Placement:	BROFOL
Wind Velocity, Unit:	3-5 MPH
Soil Moisture:	BELNOR
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage:	GLXMA V3
Height, Unit:	8 IN

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code:	IPOSS
Stage(leaves):	4-8
Height(inches):	4-10
Density:	Medium
Weed 2 Code:	ABUTH
Stage(leaves):	3-5
Height(inches):	4-6
Density:	Medium
Weed 3 Code:	XANST
Stage(leaves):	6-10
Height(inches):	6-10
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: 15 GPA

NOTES:

This study was not harvested.

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										IPOSS	IPOSS	IPOSS	ABUTH	ABUTH	ABUTH	XANST	XANST	XANST			
Weed Code				GLXMA	GLXMA	GLXMA															
Crop Code				Injury	Injury	Injury	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control				
Rating Data Type				Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent				
Rating Unit				7-8-02	7-15-02	7-29-02	7-8-02	7-15-02	8-26-02	7-8-02	7-15-02	8-26-02	7-8-02	7-15-02	8-26-02						
Rating Date				7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	56 DA-A	7 DA-A	14 DA-A	56 DA-A	28 DAT	14 DA-A	56 DA-A						
Trt-Eval Interval																					
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	0	0				
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4"MG	A	0	0	0	65	68	60	72	77	73	99	99	99
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4"MG	A	3	3	0	97	96	90	98	98	91	99	99	99
3	S-3153	57.6	WG	0.014	LB A/A	0.39	OZ/A	4"MG	A												
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4"MG	A	3	3	0	98	97	92	99	98	96	99	99	98
4	S-3153	57.6	WG	0.018	LB A/A	0.5	OZ/A	4"MG	A												
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4"MG	A	0	0	0	81	79	77	67	70	73	99	99	99
5	FIRSTRATE	84	WG	0.008	LB A/A	0.152	OZ/A	4"MG	A												
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4"MG	A	5	5	0	98	98	95	99	99	96	99	99	99
6	AIM	2	EW	0.004	LB A/A	0.256	OZ/A	4"MG	A												
LSD (P=.05)										0.0	0.0	0.0	5.4	7.0	11.0	2.7	5.9	10.4	0.0	0.4	1.7
Replicate F										0.000	0.000	0.000	0.232	0.646	0.348	3.100	1.139	0.165	0.000	1.000	1.000
Replicate Prob(F)										1.0000	1.0000	1.0000	0.7970	0.5446	0.7143	0.0896	0.3585	0.8501	1.0000	0.4019	0.4019
Treatment F										0.000	0.000	0.000	492.036	291.327	108.201	1987.960	412.249	123.097	0.000	88091.203	5484.362
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001	0.0001

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Trial Comments

1. Protocol: Valent (1-5); FMC (6).
2. Blanket preemergence application of Dual II Magnum at 0.785 lbai/A applied 10 ft wide to all plots including the nontreated on 6-4-02.
3. DA-A = days after 4"MG application.
4. IPOSS = morningglory species including pitted and ivyleaf morningglory.
5. SETFA control was 99% in all plots at 7 DA-A.