

Marestail Control in No-Till Soybean.

00-5A

OBJECTIVE: Evaluate various herbicides for burndown control of large marestail in soybean.

SUMMARY: No soybean injury was observed for any treatment. All treatments except FirstRate alone controlled at least 92% of marestail prior to the application of any postemergence herbicides (28 days after burndown treatment).

HERBICIDES

BACKDRAFT 1.5 SL
CANOPY 75 WG
FIRSTRATE 84 WG
GLYPHOMAX PLUS 3 SL
ROUNDUP ULTRA 3 SL
TOUCHDOWN 3 SL
WEEDONE 638 2.8 EC

WEEDS

FOXTAIL, GIANT
HORSEWEED
RAGWEED, COMMON
WATERHEMP, COMMON

CROP

SOYBEAN

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PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Marestail Control in No-Till Soybean.

Project Code: 00-5A Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

Weed Code	Common Name	Scientific Name
1. ERICA	HORSEWEED	CONYZA CANADENSIS (L.) CRONG.
2. AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
3. SETFA	FOXTAIL, GIANT	SETARIA FABERI HERRM.
4. AMATA	WATERHEMP, COMMON	AMARANTHUS RUDIS SAUER

Crop 1:	GLXMA SOYBEAN	Variety:	B-T 369CR
Planting Method:	SEEDED	Planting Date:	6-20-00
Rate:	75 LB/A	Depth:	1.0 IN
Row Spacing:	15 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	26 FT	Reps:	3
Tillage Type:	NO-TILL	Study Design:	RCB		
Previous Crop, Year:	GLXMA, 1999	Fertilizer applied:	N 0 LB/A,	P ₂ O ₅ 0 LB/A,	K ₂ O 0 LB/A

Soil Name:	STOY	% OM:	2.4	pH:	6.1	CEC:	8
Texture:	SILT LOAM	P ₁ :	81 LB/A,	K:	428 LB/A		

APPLICATION DESCRIPTION

	A	B	C
Application Date:	May-13-00	Jun-6-00	Jun-22-00
Time of Day:	7:00	9:00	13:00
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	6-8"MT	12-18"MT	V1SB
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	68 F	61 F	82 F
% Relative Humidity:	80	30	44
Wind Velocity, Unit:	0 MPH	4-6 MPH	5-7 MPH
Soil Moisture:	MOIST	NORMAL	WET

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	NA	NA	GLXMA COTL-V1
Height, Unit:	NA	NA	2 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:	ERICA	ERICA	ERICA
Stage(leaves):	10+	10+	10+
Height(inches):	6-10	6-30	10+
Density:	MEDIUM	MEDIUM	LOW
Weed 2 Code:	AMBEL	AMBEL	AMBEL
Stage(leaves):	5-6	7-11	6
Height(inches):	5-6	5-14	3
Density:	LOW	LOW	LOW
Weed 3 Code:			SETFA
Stage(leaves):			3-7
Height(inches):			2-8
Density:			MEDIUM
Weed 4 Code:			AMATA
Stage(leaves):			5-10+
Height(inches):			2-14
Density:			HIGH

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO ₂ SPRAY	CO ₂ SPRAY	CO ₂ SPRAY
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	8003	8003	8002
Boom Length, Unit:	7.33 FT	7.33 FT	7.33 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

NOTES:

Not harvested.

TABLE. MARESTAIL CONTROL IN NO-TILL SOYBEAN. PROJECT CODE:00-5A

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	CONTROL						GLXMA INJURY		CONTROL 28 DAP			
							ERICA			AMBEL			DAT		SETFA		AMATA	
							14	28	DAP	14	28	DAP	14	28	%	%	%	%
1 FIRSTRATE	84 WG	0.016	LB A/A	0.3 OZ/A	6-8"MT	A	72	88	99	76	99	88	0	0	89	77		
1 ACTIVATOR 90	100 LIQ	0.25	% V/V	0.25 %V/V	6-8"MT	A												
1 28% UAN	100 LIQ	2.5	% V/V	2.5 %V/V	6-8"MT	A												
1 GLYPHOMAX PLUS	3 SL	0.75	LB AE/A	2.0 PT/A	V1SB	C												
1 AMS	100 DRY	2.0	% W/W	17.0 LB/100 GAL	V1SB	C												
2 FIRSTRATE	84 WG	0.016	LB A/A	0.3 OZ/A	6-8"MT	A	99	99	99	99	99	89	0	0	89	77		
2 GLYPHOMAX PLUS	3 SL	0.75	LB AE/A	2.0 PT/A	6-8"MT	A												
2 AMS	100 DRY	2.0	% W/W	17.0 LB/100 GAL	6-8"MT	A												
2 ACTIVATOR 90	100 LIQ	0.25	% V/V	0.25 %V/V	6-8"MT	A												
2 GLYPHOMAX PLUS	3 SL	0.75	LB AE/A	2.0 PT/A	V1SB	C												
2 AMS	100 DRY	2.0	% W/W	17.0 LB/100 GAL	V1SB	C												
3 GLYPHOMAX PLUS	3 SL	0.75	LB AE/A	2.0 PT/A	6-8"MT	A	99	99	99	99	93	94	0	0	94	92		
3 AMS	100 DRY	2.0	% W/W	17.0 LB/100 GAL	6-8"MT	A												
3 GLYPHOMAX PLUS	3 SL	0.75	LB AE/A	2.0 PT/A	V1SB	C												
3 AMS	100 DRY	2.0	% W/W	17.0 LB/100 GAL	V1SB	C												
4 TOUCHDOWN	3 SL	0.75	LB AE/A	2.0 PT/A	12-18"MT	B	93	97	99	92	95	70	0	0	65	43		
4 AMS	100 DRY	1.0	% W/W	8.5 LB/100 GAL	12-18"MT	B												
5 TOUCHDOWN	3 SL	0.94	LB AE/A	2.5 PT/A	12-18"MT	B	93	99	99	95	93	68	0	0	58	43		
5 AMS	100 DRY	1.0	% W/W	8.5 LB/100 GAL	12-18"MT	B												
6 TOUCHDOWN	3 SL	1.13	LB AE/A	3.0 PT/A	12-18"MT	B	95	99	99	97	92	73	0	0	65	42		
6 AMS	100 DRY	1.0	% W/W	8.5 LB/100 GAL	12-18"MT	B												
7 TOUCHDOWN	3 SL	0.75	LB AE/A	2.0 PT/A	12-18"MT	B	53	92	99	85	95	82	0	0	82	43		
7 CANOPY	75 WG	0.09375	LB A/A	2.0 OZ/A	12-18"MT	B												
7 AMS	100 DRY	1.0	% W/W	8.5 LB/100 GAL	12-18"MT	B												
8 TOUCHDOWN	3 SL	0.75	LB AE/A	2.0 PT/A	12-18"MT	B	88	95	99	87	95	77	0	0	65	50		
8 FIRSTRATE	84 WG	0.008	LB A/A	0.15 OZ/A	12-18"MT	B												
8 AMS	100 DRY	1.0	% W/W	8.5 LB/100 GAL	12-18"MT	B												
9 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	1.0 QT/A	12-18"MT	B	77	96	98	90	88	77	0	0	65	47		
9 AMS	100 DRY	1.0	% W/W	8.5 LB/100 GAL	12-18"MT	B												
10 BACKDRAFT	1.5 SL	0.563	LB A/A	3.0 PT/A	6-8"MT	A	88	98	99	99	98	88	0	0	85	84		
10 WEEDONE 638	2.8 EC	0.5	LB A/A	1.43 PT/A	6-8"MT	A												
10 ACTIVATOR 90	100 LIQ	0.125	% V/V	0.125 %V/V	6-8"MT	A												
10 AMS	100 DRY	1.8	% W/W	15.0 LB/100 GAL	6-8"MT	A												
10 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5 PT/A	V1SB	C												
10 AMS	100 DRY	2.0	% W/W	17.0 LB/100 GAL	V1SB	C												
11 BACKDRAFT	1.5 SL	0.75	LB A/A	4.0 PT/A	6-8"MT	A	98	98	99	99	99	92	0	0	92	94		
11 ACTIVATOR 90	100 LIQ	0.125	% V/V	0.125 %V/V	6-8"MT	A												
11 AMS	100 DRY	1.8	% W/W	15.0 LB/100 GAL	6-8"MT	A												
11 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5 PT/A	V1SB	C												
11 AMS	100 DRY	2.0	% W/W	17.0 LB/100 GAL	V1SB	C												
12 NONTREATED							0	0	0	0	0	0	0	0	0	0		
LSD							10	5	0.6	13	7	8	0	0	13	17		
P							0.01	0.01	0.01	0.01	0.01	0.01	1.0	1.0	0.01	0.01		

1. PROTOCOL: DOW TRTS 1-3; ZENECA TRTS 4-9; AMERICAN CYANAMID TRTS 10+11.
2. DAP = DAYS AFTER PLANTING. 6-8"MT = 6 TO 8 INCH MARESTAIL. 12-18"MT = 12 TO 18 INCH MARESTAIL.
3. TARGET WEED HEIGHT FOR V1 SB APPLICATION WAS EXCEEDED AS APPLICATION WAS DELAYED UNTIL SOYBEANS WERE AT LEAST V1 STAGE.
4. RATING DATES:
14 DAYS AFTER 6-8"MT AND 12-18"MT WAS ON MAY-27-00 AND JUN-20-00, RESPECTIVELY.
28 DAYS AFTER 6-8"MT AND 12-18"MT WAS ON JUN-10-00 AND JUL-4-00, RESPECTIVELY.
14 DAP, AND 28 DAP ON JUL-4-00, AND JUL-18-00, RESPECTIVELY.