

Control of Volunteer Roundup Ready Corn with Scepter.

Project Code: 07-6B-S40 Location: Belleville Research Center  
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA  
 Trial Status: Final Updated: 1-23-08

Objective:

Determine the utility of Scepter applied preemergence or postemergence for management of volunteer Roundup Ready corn in soybean.

Weed Code Common Name Scientific Name

1. ZEAMX corn, volunteer Zea mays L.

Crop 1: GLXMA soybean Variety: Asgrow 4404 RR/STS  
 Planting Method: Seeded Planting Date: 6-3-07  
 Rate: 75 lb/A Depth: 1.0 IN  
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 21 FT Reps: 3  
 Tillage Type: Reduced-Till Study Design: Randomized complete block  
 Previous Crop, Year: GLXMA, 2006  
 Field Prep./Maintenance: N 150 LB/A, P2O5 50 LB/A, K2O 0 LB/A

Soil Name: Stoy % OM: 2.1 pH: 6.6 CEC: 8  
 Texture: Silt loam Fert. Level: P1: 55 LB/A, K: 401 LB/A

APPLICATION DESCRIPTION

	A	B	C
Application Date:	6-4-07	6-27-07	7-2-07
Time of Day:	18:30	9:30	9:15
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	12"CN	18"CN
Applic. Placement:	BROSOI	BROFOL	BROFOL
Air Temp., Unit:	80 F	78 F	70 F
% Relative Humidity:	60	92	92
Wind Velocity, Unit:	1-2 MPH	0-2 MPH	3-5 MPH
Dew Presence (Y/N):	N	N	N
Soil Moisture:	NORMAL	ABONOR	ABONOR
% Cloud Cover:	50	100	20

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GLXMA NA	GLXMA V2-V3	GLXMA V3
Height, Unit:	NA NA	8 IN	10 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:		ZEAMX	XEAMX
Stage(leaves):		V5	V6
Height(inches):		8-15	16-20
Density:		High	High

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

NOTES:

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Weed Code	GLXMA	GLXMA	GLXMA	ZEAMX	ZEAMX	ZEAMX
Crop Code	Injury	Injury	Injury	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	7-2-07	7-16-07	7-30-07	7-2-07	7-16-07	7-30-07
Rating Date	0 DA-C	14 DA-C	28 DA-C	0 DA-C	14 DA-C	28 DA-C
Trt-Eval Interval						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	0 DA-C	14 DA-C	28 DA-C			
1	NONTREATED									0 a	0 a	0 e			
2	SCEPTER	70	WG	0.0875	lb ai/a	2	oz/a	PRE	A	0 a	0 a	10 d			
2	CORNERSTONE	3	SL	0.75	lb ae/a	32	fl oz/a	18"CN	C						
2	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	18"CN	C						
2	N-PAK AMS	100	LIQ	5	% v/v	5	% v/v	18"CN	C						
3	SCEPTER	70	WG	0.0875	lb ai/a	2	oz/a	PRE	A	0 a	0 a	8 c			
3	CORNERSTONE	3	SL	0.75	lb ae/a	32	fl oz/a	18"CN	C			48 d			
3	SCEPTER	70	WG	0.035	lb ai/a	0.8	oz/a	18"CN	C			70 c			
3	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	18"CN	C						
3	N-PAK AMS	100	LIQ	5	% v/v	5	% v/v	18"CN	C						
4	CORNERSTONE	3	SL	0.75	lb ae/a	32	fl oz/a	12"CN	B	0 a	0 a	28 b			
4	SCEPTER	70	WG	0.0437	lb ai/a	1	oz/a	12"CN	B			75 c			
4	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	12"CN	B			87 b			
4	N-PAK AMS	100	LIQ	5	% v/v	5	% v/v	12"CN	B						
5	CORNERSTONE	3	SL	0.75	lb ae/a	32	fl oz/a	12"CN	B	0 a	0 a	60 a			
5	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	12"CN	B			98 a			
5	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	12"CN	B			98 a			
5	N-PAK AMS	100	LIQ	5	% v/v	5	% v/v	12"CN	B						
6	CORNERSTONE	3	SL	0.75	lb ae/a	32	fl oz/a	18"CN	C		0 a	0 a			
6	SCEPTER	70	WG	0.0437	lb ai/a	1	oz/a	18"CN	C			40 e			
6	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	18"CN	C			70 c			
6	N-PAK AMS	100	LIQ	5	% v/v	5	% v/v	18"CN	C						
7	CORNERSTONE	3	SL	0.75	lb ae/a	32	fl oz/a	18"CN	C		0 a	0 a			
7	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	18"CN	C			80 b			
7	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	18"CN	C			92 ab			
7	N-PAK AMS	100	LIQ	5	% v/v	5	% v/v	18"CN	C						
LSD (P=.05)										0.0	0.0	0.0	6.0	3.9	7.7
Replicate F										0.000	0.000	0.000	0.167	1.117	1.895
Replicate Prob(F)										1.0000	1.0000	1.0000	0.8493	0.3589	0.1926
Treatment F										0.000	0.000	0.000	172.250	845.611	253.169
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: BASF, SIU.
2. Ratings: CI/WC prior to POST (trt 2+3); CI/WC 14 + 28 da "C".
3. Plant RR corn perpendicular to soybean rows or broadcast prior to tillage.
4. DA-C = Days after 18"CN application.
5. For treatments 2 and 3, following the PRE application and prior to POST application, ZEAMX control was reduced corn height, no stand reduction.
6. Ratings on 7-2-07 (0 DA-C) were also 5 and 28 days after the 12"CN (B) and PRE (A) applications, respectively. Ratings on 7-16-07 (14 DA-C) were also 19 and 42 days after the 12"CN (B) and PRE (A) applications, respectively. Ratings on 7-30-07 (28 DA-C) were also 33 and 56 days after the 12"CN (B) and PRE (A) applications, respectively.