

Sharpen Preplant Followed by Prefix Early Postemergence.

Trial ID: 10-DSO-SharpPrefix Location: De Soto, IL

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: De Soto IL 62924 USA
 Trial Status: FINAL Initiation Date: 04-23-10

Objectives: Determine the soybean safety for applications of Sharpen followed by postemergence applications of Prefix (contains a PPO-inhibitor) within 30 days of the Sharpen application.

Crop 1: GLXMA Soybean Variety: AG 4005 Description: RR
 Planting Method: SEED Planting Date: 05-08-10
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common
 Pest Description: glyphosate-resistant waterhemp

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 30 FT Tillage Type: NO-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. GLXMA 2009

Field Prep./Maintenance: N 13 LB/A, P205 34 LB/A, K20 92 LB/A

% OM: 2.5 Texture: SILT LOAM
 pH: 6.8 Soil Name: OKAW
 CEC: 12 Fert. Level: P1 88 LB/A, K 207 LB/A

Application Description

	A	B
Application Date:	04-28-10	05-21-10
Time of Day:	14:15	18:00
Application Method:	Spray	Spray
Application Timing:	7DBP	2WAP
Application Placement:	BROFOL	BROFOL
Applied By:	DKP	DKP
Air Temperature, Unit:	83 F	71 F
% Relative Humidity:	30	68
Wind Velocity, Unit:	2 MPH	4 MPH
Wind Direction:	SW	W
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	64 F	70 F
Soil Moisture:	ABONOR	ABONOR
% Cloud Cover:	60	80

	04-28-10	05-21-10
Crop stage at application:	NA	VC
Height Min, Max (inch):	2	5

Pest Stage At Each Application

	04-28-10	05-21-10
Application Date:	04-28-10	05-21-10
Weed Code:	AMATA	AMATA
Stage Majority (leaves):	COTY 2	
Stage Min, Max:	COTY 1	COTY 4
Height Majority:	0.25 IN	0.5 IN
Height Min, Max:	0.25 0.5	0.25 1
Density, Unit:	1 FT2	2 FT2

Application Equipment

	04-28-10	05-21-10
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

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										AMATA-HR	
Pest Code										AMATA-HR	
Crop Code										AMATA-HR	
Rating Date										AMATA-HR	
Rating Data Type										AMATA-HR	
Rating Unit										AMATA-HR	
Rating Timing										AMATA-HR	
Trt-Eval Interval										AMATA-HR	
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl			
No.	Name	Conc	Type	Unit	Rate	Rate	Stage	Code			
1	SHARPEN	2.85	SC	0.0223 lb ai/a	1 fl oz/a	7DBP	A		22 c	0 a	0 b
1	TOUCHDOWN TOTAL	4.17	SL	0.78 lb ae/a	24 fl oz/a	2WAP	B				0 c
1	N-PAK AMS	100	SL	5 % v/v	5 % v/v	2WAP	B				
2	SHARPEN	2.85	SC	0.0223 lb ai/a	1 fl oz/a	7DBP	A		25 bc	0 a	1 b
2	PREFIX	5.29	EC	1.49 lb ai/a	2.25 pt/a	7DBP	A				0 c
2	TOUCHDOWN TOTAL	4.17	SL	0.78 lb ae/a	24 fl oz/a	2WAP	B				0 b
2	N-PAK AMS	100	SL	5 % v/v	5 % v/v	2WAP	B				
3	SHARPEN	2.85	SC	0.0223 lb ai/a	1 fl oz/a	7DBP	A		31 a	0 a	38 a
3	TOUCHDOWN TOTAL	4.17	SL	0.78 lb ae/a	24 fl oz/a	2WAP	B				18 b
3	PREFIX	5.29	EC	1.49 lb ai/a	2.25 pt/a	2WAP	B				9 a
3	N-PAK AMS	100	SL	5 % v/v	5 % v/v	2WAP	B				7 b
4	TOUCHDOWN TOTAL	4.17	SL	0.78 lb ae/a	24 fl oz/a	2WAP	B		29 ab		40 a
4	PREFIX	5.29	EC	1.49 lb ai/a	2.25 pt/a	2WAP	B				19 a
4	N-PAK AMS	100	SL	5 % v/v	5 % v/v	2WAP	B				8 a
LSD (P=.05)									4.8	0.0	3.4
Replicate F									0.057	0.000	0.252
Replicate Prob(F)									0.9449	1.0000	0.7848
Treatment F									6.678	0.000	507.916
Treatment Prob(F)									0.0243	1.0000	0.0001
											0.0001
											0.0005
											0.0001

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

Trial Comments

1. Protocol: SIU(BGY).
2. Ratings: CI at 0, 7, 14 and 28 DA-B. WC at 0 and 28 DA-B.
3. Blanket burndown application of Gramoxone Inteon (3.5 pt/A) + 2,4-D (1 pt/A) + COC (1%) to be applied to all plots 7 DBP.
4. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
Crop injury was necrosis, leaf malformation and stunting.
5. Harvested 9-25-10, (2) 30 inch rows by 26.5 ft.