

Southern Illinois University

Cobra and Pyroxasulfone Preemergence in Soybean.

Trial ID: 12-DSO-CobraPRE

Location: De Soto, IL

Investigator: Bryan Young

General Trial Information

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor

Trial Status: F - one-year/final
Initiation Date: 4-29-12

Trial Location

City: De Soto
State/Prov.: IL
Postal Code: 62924
Country: USA

Objectives:

Evaluate the efficacy of Cobra, pyroxasulfone and the combination on waterhemp from preemergence applications in soybean.

Personnel

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor
Affiliation: Southern Illinois University
Address: 1205 Lincoln Drive - AG 176 - MC 4415
Location: Carbondale IL
Postal Code: 62901 **E-mail:** bgyoung@siu.edu
Phone No.: 618-453-7679 **Mobile No.:** 618-713-6471

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG3832 **Description:** RR2Y
BBCH Scale: BSOY **Planting Date:** 4-29-12
Planting Method: SEEDED Seeded **Rate, Unit:** 155000 S/A
Depth, Unit: 2 IN
Row Spacing, Unit: 30 IN

Pest Description

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

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT
Plot Area, Unit: 300 FT2 **Tillage Type:** NOTILL no-till
Replications: 3 **Study Design:** RACOB Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMX	2011

Maintenance

No.	Maintenance Treatment Name
1.	N 27 LB/A, P205 69 LB/A, K20 90 LB/A

Soil Description

% Sand: 14 **% OM:** 2.12 **Texture:** SIL SILT LOAM
% Silt: 67 **pH:** 6.9 **Soil Name:** OKAW
% Clay: 19 **CEC:** 12.7

Additional Measured Elements

Element	Quantity	Unit
P1	112	LB/A
K	386	LB/A

Moisture and Weather Conditions

Overall Moisture Conditions: BELNOR below normal
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 1.5 MI

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Application Description

	A
Application Date:	4-29-12
Time of Day:	14:00
Application Method:	Spray
Application Timing:	PRE
Application Placement:	BROFOL
Applied By:	JRK
Air Temperature, Unit:	85 F
% Relative Humidity:	57
Wind Velocity, Unit:	2 MPH
Wind Direction:	N
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	70 F
Soil Moisture:	NORMAL
% Cloud Cover:	100
Next Rain Occurred On:	4-30-12

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMATA W DESC
Stage Majority, Percent:	NA

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							GLXMA 5-6-12 Injury Percent	GLXMA 5-13-12 Injury Percent	GLXMA 5-20-12 Injury Percent	AMATA-HR 5-13-12 Control Percent	AMATA-HR 5-20-12 Control Percent	AMATA-HR 5-27-12 Control Percent
							7 DA-A	14 DA-A	21 DA-A	14 DA-A	21 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit	Appl Stage	Code			
1	NONTREATED									0 d	0 d	0 d
2	PREFIX	5.29 EC		0.99 lb ai/a	1.5 pt/a		PRE	A		0 a	0 a	0 a
3	COBRA	2 EC		0.156 lb ai/a	10 fl oz/a		PRE	A		0 a	0 a	0 a
4	COBRA	2 EC		0.188 lb ai/a	12 fl oz/a		PRE	A		0 a	0 a	0 a
5	COBRA	2 EC		0.297 lb ai/a	19 fl oz/a		PRE	A		0 a	0 a	0 a
6	V-10206	85 WG		0.08 lb ai/a	1.5 oz/a		PRE	A		0 a	0 a	0 a
7	V-10206	85 WG		0.096 lb ai/a	1.8 oz/a		PRE	A		0 a	0 a	0 a
8	COBRA V-10206	2 EC 85 WG		0.156 lb ai/a 0.08 lb ai/a	10 fl oz/a 1.5 oz/a		PRE PRE	A A		0 a	0 a	0 a
9	COBRA V-10206	2 EC 85 WG		0.188 lb ai/a 0.096 lb ai/a	12 fl oz/a 1.8 oz/a		PRE PRE	A A		0 a	0 a	0 a
LSD (P=.05)							0.0	0.0	3.3	19.1	8.1	7.6
Standard Deviation							0.0	0.0	1.9	11.0	4.7	4.4
CV							0.0	0.0	83.73	14.32	5.92	5.78
Replicate F							0.000	0.000	0.755	2.659	2.073	0.748
Replicate Prob(F)							1.0000	1.0000	0.4858	0.1007	0.1583	0.4892
Treatment F							0.000	0.000	1.136	27.971	140.911	150.739
Treatment Prob(F)							1.0000	1.0000	0.3922	0.0001	0.0001	0.0001

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Trial Comments

1. Protocol: Valent (V10206 MD 64.05).
2. Ratings: CI at 7 and 14 DAT; WC at 14, 21, and 28 DAT.
3. Blanket burndown of Gramoxone Inteon (4 pt/A) plus NIS (0.5%) was applied on 4-28-12.
4. Rainfall following the PRE application was approximately 0.5 inch the next day and an additional 0.25 inch 7 days later.
5. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
6. Not harvested.