

Southern Illinois University

Preemergence Weed Control in Soybean with Sipcam Products - Site 1.

Trial ID: 13-DSO-Sipcam Location: De Soto, IL Trial Year: 2013
Investigator: Bryan Young

Trial Status: F one-year/final Initiation Date: 5-24-13 Completion Date: 10-19-13	Trial Location City: De Soto Country: USA State/Prov.: Illinois IL Postal Code: 62924
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Objectives:
Evaluate the performance of Stalwart tank mixtures and experimental Sipcam products for preemergence weed control in soybean.

Study Director: Bryan Young Organization: Southern Illinois University Address: 1205 Lincoln Drive - AG 176 - MC 4415 City+State/Prov: Carbondale IL Postal Code: 62901 Country: USA	Title: Professor Phone No.: 618-453-7679 Mobile No.: 618-713-6471 E-mail: bgyoung@siu.edu
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Crop 1: GLXMA Glycine max Soybean Variety: AG3832 Description: RR2Y Planting Date: 5-24-13 Planting Rate, Unit: 145000 S/A Planting Method: SEEDED Depth, Unit: 1.75 IN Row Spacing, Unit: 30 IN	Crop Description
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Pest 1 Type: W Code: AMATA Amaranthus rudis Sauer Common Name: waterhemp, common Description: glyphosate-resistant waterhemp	Pest Description
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Treated Plot Width: 6.67 FT Total Plot Width: 10 FT Treated Plot Length: 30 FT Total Plot Length: 30 FT Replications: 4 Untreated Arrangement: INCLUDED single control randomized in each block	Site and Design Site Type: FIELD Experimental Unit: 1 PLOT Tillage Type: NOTILL no-till Study Design: RACOB L Randomized Complete Block (RCB)
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No.	Previous Crop	Year
1.	GLXMA	2012

<table border="1"> <thead> <tr> <th>No.</th> <th>Maintenance Product Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A</td> </tr> </tbody> </table>	No.	Maintenance Product Name	1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A	Maintenance
No.	Maintenance Product Name				
1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A				

% Sand: 15.4 % OM: 2.15 Texture: SIL silt loam % Silt: 64.7 pH: 6.9 Soil Name: Okaw % Clay: 19.9 CEC: 12.4	Soil Description
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Element	Quantity	Unit
P1	94	lb/A
K	468	lb/A

Overall Moisture Conditions: NORMAL Closest Weather Station: SOUTHERN IL AIRPORT (93810)	Moisture and Weather Conditions Distance, Unit: 1.5 MI
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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-3-13	1.33	IN	RAIN	rain	3	DAY			
2.	5-5-13	0.75	IN	RAIN	rain	2	DAY			
3.	5-6-13					7	DAY	41	80	F
4.	5-10-13	0.17	IN	RAIN	rain	3	DAY			
5.	5-13-13					7	DAY	37	87	F
6.	5-16-13	0.23	IN	RAIN	rain	2	DAY			
7.	5-20-13					7	DAY	43	85	F
8.	5-21-13	0.91	IN	RAIN	rain	1	DAY			
9.	5-27-13					7	DAY	59	86	F
10.	5-31-13	0.7	IN	RAIN	rain	3	DAY			
11.	6-1-13	1.67	IN	RAIN	rain	2	DAY			
12.	6-3-13					7	DAY	50	82	F
13.	6-10-13	0.13	IN	RAIN	rain	5	DAY			
14.	6-10-13					7	DAY	57	93	F
15.	6-17-13	0.36	IN	RAIN	rain	2	DAY			
16.	6-17-13					7	DAY	61	92	F
17.	6-22-13	0.34	IN	RAIN	rain	2	DAY			
18.	6-24-13					7	DAY	64	93	F
19.	6-26-13	1.25	IN	RAIN	rain	2	DAY			
20.	6-30-13	0.3	IN	RAIN	rain	2	DAY			
21.	7-1-13					7	DAY	57	88	F
22.	7-2-13	1.16	IN	RAIN	rain	2	DAY			
23.	7-8-13					7	DAY	59	92	F
24.	7-14-13	0.05	IN	RAIN	rain	5	DAY			
25.	7-15-13					7	DAY	68	93	F
26.	7-20-13	1.24	IN	RAIN	rain	2	DAY			
27.	7-22-13					7	DAY	51	90	F
28.	7-27-13	0.13	IN	RAIN	rain	2	DAY			
29.	7-29-13					7	DAY	58	86	F
30.	7-30-13	0.98	IN	RAIN	rain	1	DAY			
31.	8-3-13	0.24	IN	RAIN	rain	3	DAY			
32.	8-5-13	0.53	IN	RAIN	rain	2	DAY			
33.	8-5-13					7	DAY	61	98	F
34.	8-8-13	1.78	IN	RAIN	rain	4	DAY			
35.	8-12-13	0.12	IN	RAIN	rain	2	DAY			
36.	8-12-13					7	DAY	51	84	F
37.	8-17-13	0.21	IN	RAIN	rain	2	DAY			
38.	8-19-13	0.01	IN	RAIN	rain	1	DAY			
39.	8-19-13					7	DAY	60	90	F

Preemergence Weed Control in Soybean with Sipcam Products - Site 1.

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Application Description

	A
Application Date:	5-24-13
Appl. Start Time:	15:00
Appl. Stop Time:	15:20
Application Method:	Spray
Application Timing:	PRE
Application Placement:	BROSOI
Applied By:	NTH
Air Temperature, Unit:	82 F
% Relative Humidity:	31
Wind Velocity, Unit:	2 MPH
Wind Direction:	N
Dew Presence (Y/N):	N
Soil Temperature, Unit:	77 F
Soil Moisture:	NORMAL
% Cloud Cover:	0
Next Moisture Occurred On:	5-30-13
Time to Next Moisture, Unit:	6 DAY

Crop Stage At Each Application

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

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMATA W
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 10-19-13 Moisture Percent	GLXMA 10-19-13 Test wt. lb/bu	GLXMA 10-19-13 Yield bu/A	GLXMA 6-7-13 Injury Percent	GLXMA 6-21-13 Injury Percent	GLXMA 7-5-13 Injury Percent		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		14 DA-A	28 DA-A	42 DA-A		
1	SA-0370102	100	SL	2.5 pt/a	2.5 pt/a		PRE	A	18.3 a	48.7 a	30 a	0 e	0 c	0 b
2	STALWART SA-0330101	8 EC 100	SL	1 lb ai/a 10 fl oz/a	1 pt/a 10 fl oz/a		PRE PRE	A A	18.0 a	48.7 a	46 a	16 a	12 a	4 a
3	SA-0070116	100	SL	3.5 pt/a	3.5 pt/a		PRE	A	19.0 a	48.2 a	28 a	4 c	7 b	1 b
4	STALWART SA-0400101	8 EC 100	WG	1 lb ai/a 2 oz/a	1 pt/a 2 oz/a		PRE PRE	A A	18.6 a	48.0 a	36 a	11 b	14 a	4 a
5	SA-0370103	100	SL	2.5 pt/a	2.5 pt/a		PRE	A	20.4 a	47.4 a	30 a	2 cd	2 c	0 b
6	SA-0070115	100	SL	3.5 pt/a	3.5 pt/a		PRE	A	19.6 a	48.0 a	27 a	1 de	1 c	0 b
7	NONTREATED								20.7 a	47.3 a	22 a	0 e	0 c	0 b
LSD (P=.05)							3.56	1.67	15.4	1.5	3.3	1.2		
Standard Deviation							2.37	1.12	10.3	1.0	2.2	0.8		
CV							12.33	2.33	32.67	22.29	44.93	70.38		
Replicate F							0.042	0.056	0.028	2.047	1.264	1.000		
Replicate Prob(F)							0.9882	0.9820	0.9936	0.1432	0.3165	0.4155		
Treatment F							0.785	0.980	2.166	136.708	26.613	18.098		
Treatment Prob(F)							0.5941	0.4704	0.1015	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.

Missing data estimates are included in columns: Average=3,4,5

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Pest Code							AMATA-HR	AMATA-HR	AMATA-HR
Crop Code							6-7-13	6-21-13	7-5-13
Rating Date							Control	Control	Control
Rating Type							Percent	Percent	Percent
Rating Unit									
Rating Timing									
Trt-Eval Interval							14 DA-A	28 DA-A	42 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	SA-0370102	100	SL	2.5 pt/a	2.5 pt/a		PRE	A	60 c
2	STALWART SA-0330101	8 EC 100	SL	1 lb ai/a 10 fl oz/a	1 pt/a 10 fl oz/a		PRE PRE	A A	99 a
3	SA-0070116	100	SL	3.5 pt/a	3.5 pt/a		PRE	A	98 a
4	STALWART SA-0400101	8 EC 100	WG	1 lb ai/a 2 oz/a	1 pt/a 2 oz/a		PRE PRE	A A	75 c
5	SA-0370103	100	SL	2.5 pt/a	2.5 pt/a		PRE	A	99 a
6	SA-0070115	100	SL	3.5 pt/a	3.5 pt/a		PRE	A	54 d
7	NONTREATED								24 c
LSD (P=.05)							7.3	8.6	8.3
Standard Deviation							4.9	5.8	5.6
CV							6.48	8.85	14.18
Replicate F							0.582	2.991	0.420
Replicate Prob(F)							0.6347	0.0583	0.7406
Treatment F							222.074	139.239	141.240
Treatment Prob(F)							0.0001	0.0001	0.0001

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Trial Comments

1. Protocol: Sipcam (2013-5-IL).
2. Ratings: CI/WC 14, 28, and 42 DA-A.
3. Blanket burndown application of glyphosate (1.5 lbae/A) plus Salvo (12 floz/A) was applied to all plots on 4-2-13.
Blanket prior to planting of Gramoxone (2.5 pt/A) was applied to all plots on 5-24-13.
Blanket application of Warrior (1.92 oz/A) was applied to all plots on 6-19-13.
4. Yield.
5. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
6. Following the PRE application the first rainfall event, beginning 6 days later, was 2.37 inch over 3 days.
7. Harvested 10-19-13, (2) 30 inch or (4) 15 inch rows by 26.5 ft.