

Southern Illinois University

Statement Preemergence in Soybean.

Trial ID: 13-1-MME30 Location: Belleville Res. Center Trial Year: 2013
Investigator: Bryan Young

Trial Status: F one-year/final Initiation Date: 7-12-13 Completion Date: 11-10-13		Trial Location
City: Belleville State/Prov.: Illinois IL Postal Code: 62221	Country: USA	

Objectives:
Evaluate crop tolerance and efficacy with Statement applied preemergence 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 BBCH Scale: BSOY Description: RR2Y		Crop Description
Planting Rate, Unit: 75 LB/A Depth, Unit: 1 IN Row Spacing, Unit: 30 IN		
Planting Date: 7-12-13 Planting Method: SEEDED		

Pest 1 Type: W Code: AMBTR Ambrosia trifida L. Common Name: ragweed, giant		Pest Description
Pest 2 Type: W Code: AMATA Amaranthus rudis Sauer Common Name: waterhemp, common		
Pest 3 Type: W Code: ABUTH Abutilon theophrasti Medik. Common Name: velvetleaf		
Pest 4 Type: W Code: GGGAN Common Name: grasses, annual Description: Mixture of SETFA and PANDI		

Treated Plot Width: 7.5 FT Total Plot Width: 10 FT Treated Plot Length: 31 FT Total Plot Length: 31 FT		Site Type: FIELD Experimental Unit: 1 PLOT Tillage Type: REDTIL reduced-till Study Design: RACOB� Randomized Complete Block (RCB)						
Replications: 4 Untreated Arrangement: INCLUDED single control randomized in each block								
<table border="1"> <tr> <th>No.</th> <th>Previous Crop</th> <th>Year</th> </tr> <tr> <td>1.</td> <td>ZEAMD</td> <td>2012</td> </tr> </table>	No.	Previous Crop	Year	1.	ZEAMD	2012		
No.	Previous Crop	Year						
1.	ZEAMD	2012						

Maintenance					
<table border="1"> <tr> <th>No.</th> <th>Maintenance Product Name</th> </tr> <tr> <td>1.</td> <td>N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A</td> </tr> </table>	No.	Maintenance Product Name	1.	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A	
No.	Maintenance Product Name				
1.	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A				

% OM: 2.5 Texture: SIL silt loam pH: 6 Soil Name: Winfield CEC: 6		Soil Description									
Additional Measured Elements											
<table border="1"> <tr> <th>Element</th> <th>Quantity</th> <th>Unit</th> </tr> <tr> <td>P1</td> <td>58</td> <td>lb/A</td> </tr> <tr> <td>K</td> <td>286</td> <td>lb/A</td> </tr> </table>	Element		Quantity	Unit	P1	58	lb/A	K	286	lb/A	
Element	Quantity		Unit								
P1	58	lb/A									
K	286	lb/A									

Overall Moisture Conditions: ABONOR Closest Weather Station: ICN - Belleville IL		Moisture and Weather Conditions Distance, Unit: 0.5 MI
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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	6-30-13					7	DAY	61	86	F
2.	7-2-13	2.08	IN	RAIN	rain	2	DAY			
3.	7-7-13					7	DAY	62	94	F
4.	7-10-13	0.2	IN	RAIN	rain	1	DAY			
5.	7-14-13					7	DAY	64	94	F
6.	7-15-13	0.03	IN	RAIN	rain	1	DAY			
7.	7-20-13	0.59	IN	RAIN	rain	1	DAY			
8.	7-21-13					7	DAY	56	91	F
9.	7-26-13	0.03	IN	RAIN	rain	1	DAY			
10.	7-28-13					7	DAY	52	87	F
11.	7-30-13	0.46	IN	RAIN	rain	1	DAY			
12.	8-2-13	0.24	IN	RAIN	rain	1	DAY			
13.	8-4-13					7	DAY	62	87	F
14.	8-8-13	0.03	IN	RAIN	rain	3	DAY			
15.	8-11-13					7	DAY	54	85	F
16.	8-12-13	0.57	IN	RAIN	rain	1	DAY			
17.	8-18-13	0.1	IN	RAIN	rain	1	DAY			
18.	8-18-13					7	DAY	61	91	F
19.	8-25-13					7	DAY	62	100	F
20.	8-31-13	0.74	IN	RAIN	rain	1	DAY			
21.	9-1-13					7	DAY	57	92	F
22.	9-8-13	0.26	IN	RAIN	rain	1	DAY			

Application Description

	A
Application Date:	7-13-13
Appl. Start Time:	19:45
Appl. Stop Time:	20:00
Application Method:	Spray
Application Timing:	PRE
Application Placement:	BROSOI
Applied By:	RJW
Air Temperature, Unit:	72 F
% Relative Humidity:	79
Wind Velocity, Unit:	4 MPH
Wind Direction:	S
Dew Presence (Y/N):	N
Soil Temperature, Unit:	76 F
Soil Moisture:	NORMAL
% Cloud Cover:	20
Next Moisture Occurred On:	7-20-13
Time to Next Moisture, Unit:	7 DAY

Crop Stage At Each Application

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

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	NA
Pest 2 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	NA
Pest 3 Code, Type, Scale:	ABUTH W
Stage Majority, Percent:	NA
Pest 4 Code, Type, Scale:	GGGAN W
Stage Majority, Percent:	NA

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	TTI
Nozzle Size:	11002
Boom Length, Unit:	7.5 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 11-10-13 Moisture Percent	GLXMA 11-10-13 Test wt. lb/bu	GLXMA 11-10-13 Yield bu/A	GLXMA 7-27-13 Injury Percent	GLXMA 7-27-13 Chlorosis Percent	GLXMA 7-27-13 Necrosis Percent	GLXMA 7-27-13 Stunt Percent			
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl									
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code							
1	STATEMENT	5.25	EC	1.31	lb ai/a	32	fl oz/a	PRE	A		14.4 a	56.4 b	16 a	4 c	0 a	0 a	0 a
2	STATEMENT	5.25	EC	1.64	lb ai/a	40	fl oz/a	PRE	A		14.5 a	56.4 b	23 a	5 bc	0 a	0 a	0 a
3	PREFIX	5.29	EC	1.32	lb ai/a	32	fl oz/a	PRE	A		14.6 a	56.4 b	18 a	6 b	0 a	0 a	0 a
4	PREFIX	5.29	EC	1.65	lb ai/a	40	fl oz/a	PRE	A		14.6 a	56.4 b	22 a	9 a	0 a	0 a	2 a
5	NONTREATED										11.7 b	57.6 a	3 b	0 d	0 a	0 a	0 a
LSD (P=.05)								0.36	0.20	7.4	2.3	0.0	0.0	1.2			
Standard Deviation								0.23	0.12	4.8	1.5	0.0	0.0	0.8			
CV								1.67	0.22	28.85	32.67	0.0	0.0	258.2			
Replicate F								0.312	0.499	1.551	3.601	0.000	0.000	1.000			
Replicate Prob(F)								0.8167	0.6910	0.2523	0.0461	1.0000	1.0000	0.4262			
Treatment F								117.469	72.937	11.058	18.742	0.000	0.000	3.000			
Treatment Prob(F)								0.0001	0.0001	0.0005	0.0001	1.0000	1.0000	0.0625			

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

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval								GLXMA 8-10-13 Injury Percent	GLXMA 8-10-13 Chlorosis Percent	GLXMA 8-10-13 Necrosis Percent	GLXMA 8-10-13 Stunt Percent	GLXMA 8-24-13 Injury Percent	GLXMA 8-24-13 Chlorosis Percent	GLXMA 8-24-13 Necrosis Percent	GLXMA 8-24-13 Stunt Percent	
								28 DA-A	28 DA-A	28 DA-A	28 DA-A	42 DA-A	42 DA-A	42 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	STATEMENT	5.25	EC	1.31 lb ai/a	32 fl oz/a		PRE	A	2 b	0 a	0 a	0 a	1 bc	1 ab	0 a	0 a
2	STATEMENT	5.25	EC	1.64 lb ai/a	40 fl oz/a		PRE	A	3 ab	1 a	0 a	0 a	1 ab	1 a	0 a	0 a
3	PREFIX	5.29	EC	1.32 lb ai/a	32 fl oz/a		PRE	A	2 b	1 a	0 a	0 a	1 ab	1 a	0 a	0 a
4	PREFIX	5.29	EC	1.65 lb ai/a	40 fl oz/a		PRE	A	4 a	1 a	0 a	2 a	2 a	1 a	0 a	1 a
5	NONTREATED								0 c	0 a	0 a	0 a	0 c	0 b	0 a	0 a
LSD (P=.05)									1.0	0.7	0.0	0.0	0.9	0.8	0.0	0.6
Standard Deviation									0.7	0.5	0.0	0.0	0.6	0.5	0.0	0.4
CV									33.85	94.87	0.0	0.0	68.04	68.85	0.0	243.43
Replicate F									2.909	2.667	0.000	0.000	0.889	0.688	0.000	0.375
Replicate Prob(F)									0.0782	0.0951	1.0000	1.0000	0.4747	0.5768	1.0000	0.7727
Treatment F									14.455	2.778	0.000	0.000	4.200	3.750	0.000	1.500
Treatment Prob(F)									0.0002	0.0761	1.0000	1.0000	0.0235	0.0334	1.0000	0.2634

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Pest Code							AMBTR	AMBTR	AMBTR	AMATA	AMATA	AMATA
Crop Code							8-3-13	8-17-13	8-31-13	8-3-13	8-17-13	8-31-13
Rating Date							Control	Control	Control	Control	Control	Control
Rating Type							Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit												
Rating Timing												
Trt-Eval Interval							21 DA-A	35 DA-A	49 DA-A	21 DA-A	35 DA-A	49 DA-A
Trt Treatment	Form	Form	Rate	Other	Other	Growth	Appl					
No. Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code			
1 STATEMENT	5.25 EC	1.31 lb ai/a	32 fl oz/a	PRE	A			28 c	29 b	25 b	99 a	99 a
2 STATEMENT	5.25 EC	1.64 lb ai/a	40 fl oz/a	PRE	A			43 a	51 a	50 a	99 a	99 a
3 PREFIX	5.29 EC	1.32 lb ai/a	32 fl oz/a	PRE	A			35 b	45 ab	38 ab	99 a	99 a
4 PREFIX	5.29 EC	1.65 lb ai/a	40 fl oz/a	PRE	A			40 ab	54 a	50 a	99 a	99 a
5 NONTREATED								0 d	0 c	0 c	0 a	0 a
LSD (P=.05)								6.7	16.7	13.5	0.0	0.0
Standard Deviation								4.4	10.8	8.8	0.0	0.0
CV								15.1	30.24	26.94	0.0	0.0
Replicate F								0.348	0.296	0.239	0.000	0.000
Replicate Prob(F)								0.7914	0.8277	0.8674	1.0000	1.0000
Treatment F								61.696	16.914	22.826	0.000	0.000
Treatment Prob(F)								0.0001	0.0001	0.0001	1.0000	1.0000

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Pest Code							ABUTH	ABUTH	ABUTH	GGGAN	GGGAN	GGGAN
Crop Code							8-3-13	8-17-13	8-31-13	8-3-13	8-17-13	8-31-13
Rating Date							Control	Control	Control	Control	Control	Control
Rating Type							Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit												
Rating Timing												
Trt-Eval Interval							21 DA-A	35 DA-A	49 DA-A	21 DA-A	35 DA-A	49 DA-A
Trt Treatment	Form	Form	Rate	Other	Other	Growth	Appl					
No. Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code			
1 STATEMENT	5.25	EC	1.31	lb ai/a	32	fl oz/a	PRE	A		28 b	19 b	3 b
										99 a	98 a	98 a
2 STATEMENT	5.25	EC	1.64	lb ai/a	40	fl oz/a	PRE	A		33 ab	36 a	20 a
										99 a	98 a	98 a
3 PREFIX	5.29	EC	1.32	lb ai/a	32	fl oz/a	PRE	A		28 b	29 ab	10 ab
										99 a	99 a	98 a
4 PREFIX	5.29	EC	1.65	lb ai/a	40	fl oz/a	PRE	A		36 a	33 a	19 a
										99 a	99 a	99 a
5 NONTREATED										0 c	0 c	0 b
										0 a	0 b	0 b
LSD (P=.05)										7.7	10.0	12.8
Standard Deviation										5.0	6.5	8.3
CV										20.2	27.97	81.14
										0.0	0.0	0.0
										0.0	0.87	1.12
Replicate F										2.583	3.734	2.717
Replicate Prob(F)										0.1018	0.0418	0.0913
Treatment F										0.000	1.0000	1.0000
Treatment Prob(F)										0.0264	0.0001	0.0164
										32.800	19.995	4.807
										0.0001	0.0001	0.0151
										16612.502	9996.914	0.0001
										0.0001	0.0001	0.0001

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Trial Comments

1. Protocol: Cheminova (Fomme 1301).
2. Ratings: CI / chlorosis / necrosis / stunt at 14, 28, and 42 DA-A; WC 21, 35, and 49 DA-A.
3. Yield.
4. Following the PRE application the first rainfall event, beginning 7 days later, was 0.59 inch over 1 day.
5. Soybean injury at 14 DA-A was leaf malformation / drawstring.
6. GGGAN = Annual grasses including 50% SETFA (giant foxtail) and 50% PANDI (fall panicum).
7. Harvested 11-10-13, (2) 30 inch rows by 28 ft.