

Alert Preemergence in Soybean.

Trial ID: 11-2A-W70

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Belleville IL 62221 USA
 Trial Status: FINAL Initiation Date: 6-6-11

Objectives: To evaluate the efficacy of Alert and Dawn applied preemergence to soybean.

Crop 1: GLXMA Soybean Variety: AG 4005 Description: RR
 Planting Method: SEEDED Planting Date: 6-6-11
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: SETFA Setaria faberi Herrm. foxtail, giant
 Pest 2 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant
 Pest 3 Type: W Code: AMBEL Ambrosia artemisiifolia L. ragweed, common
 Pest 4 Type: W Code: IPOHE Ipomoea hederacea (L.) Jacq. morningglory, ivyleaf

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 28 FT Tillage Type: REDUCED-TILL
 Replications: 4 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2010

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 150 LB/A

% OM: 1.6 Texture: SILT LOAM
 pH: 5.9 Soil Name: PIERRON
 CEC: 6 Fert. Level: P1:41 LB/A, K:257 LB/A

Application Description

A
 Application Date: 6-7-11
 Time of Day: 12:00
 Application Method: Spray
 Application Timing: PRE
 Application Placement: BROSOI
 Applied By: LAH
 Air Temperature, Unit: 95 F
 % Relative Humidity: 40
 Wind Velocity, Unit: 6 MPH
 Wind Direction: SW
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 76 F
 Soil Moisture: NORMAL
 % Cloud Cover: 0

7-6-11
 Crop stage at application: NA

Pest Stage At Each Application

Application Date: 6-7-11
 Weed Code: SETFA
 Stage Majority (leaves): NA
 Weed Code: AMBTR
 Stage Majority (leaves): NA
 Weed Code: AMBEL
 Stage Majority (leaves): NA
 Weed Code: IPOHE
 Stage Majority (leaves): NA

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 7.5 FT
 Spray Volume, Unit: 15 GPA

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Pest Code		GLXMA						SETFA					
Crop Code		6-14-11		6-21-11		7-5-11		6-28-11	7-12-11	7-26-11			
Rating Date		Injury		Injury		Injury		Control	Control	Control			
Rating Data Type		Percent		Percent		Percent		Percent	Percent	Percent			
Rating Unit		7 DA-A		14 DA-A		28 DA-A		21 DA-A	35 DA-A	49 DA-A			
Rating Timing		7 DA-A		14 DA-A		28 DA-A		21 DA-A	35 DA-A	49 DA-A			
Trt-Eval Interval		7 DA-A		14 DA-A		28 DA-A		21 DA-A	35 DA-A	49 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	ALERT	3	ME	0.5	lb ai/a	21.3	fl oz/a	PRE	A	0 a	0 a	0 a	98 b 94 c 96 a
2	ALERT	3	ME	0.75	lb ai/a	32	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 97 ab 98 a
3	ALERT	3	ME	1	lb ai/a	42.7	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 97 ab 97 a
4	ALERT	3	ME	0.5	lb ai/a	21.3	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 96 b 97 a
4	DAWN	2	AS	0.25	lb ai/a	16	fl oz/a	PRE	A				
5	ALERT	3	ME	0.5	lb ai/a	21.3	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 97 ab 98 a
5	DAWN	2	AS	0.375	lb ai/a	24	fl oz/a	PRE	A				
6	ALERT	3	ME	0.75	lb ai/a	32	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 98 ab 98 a
6	DAWN	2	AS	0.25	lb ai/a	16	fl oz/a	PRE	A				
7	ALERT	3	ME	0.75	lb ai/a	32	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 98 a 98 a
7	DAWN	2	AS	0.375	lb ai/a	24	fl oz/a	PRE	A				
8	DUAL II MAGNUM	7.64	EC	1	lb ai/a	16.8	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 98 ab 99 a
9	PREFIX	5.29	EC	1.65	lb ai/a	40	fl oz/a	PRE	A	0 a	0 a	0 a	99 a 97 ab 96 a
10	NONTREATED									0 a	0 a	0 a	0 c 0 d 0 b
LSD (P=.05)										0.0	0.0	0.0	0.8 1.9 3.3
Replicate F										0.000	0.000	0.000	1.682 0.278 0.555
Replicate Prob(F)										1.0000	1.0000	1.0000	0.1963 0.8410 0.6499
Treatment F										0.000	0.000	0.000	13520.681 2122.092 734.146
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)

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		AMBTR			AMBEL			IPOHE										
Pest Code	Crop Code	AMBTR	AMBTR	AMBTR	AMBEL	AMBEL	AMBEL	IPOHE	IPOHE	IPOHE								
Rating Date	Rating Data Type	6-28-11	7-12-11	7-26-11	6-28-11	7-12-11	7-26-11	6-28-11	7-12-11	7-26-11								
Rating Unit	Rating Timing	Control	Control	Control	Control	Control	Control	Control	Control	Control								
Trt-Eval Interval		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent								
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	21 DA-A	35 DA-A	49 DA-A	21 DA-A	35 DA-A	49 DA-A			
1	ALERT	3	ME	0.5	lb ai/a	21.3	fl oz/a	PRE	A	40 d	40 c	22 cd	50 d	43 d	28 de	37 d	37 d	37 c
2	ALERT	3	ME	0.75	lb ai/a	32	fl oz/a	PRE	A	70 c	65 b	51 bc	69 c	64 c	50 cd	57 bc	57 bc	53 abc
3	ALERT	3	ME	1	lb ai/a	42.7	fl oz/a	PRE	A	83 abc	76 ab	63 ab	79 bc	73 bc	55 bc	70 ab	59 abc	59 ab
4	ALERT	3	ME	0.5	lb ai/a	21.3	fl oz/a	PRE	A	88 ab	86 a	82 ab	85 ab	76 abc	74 ab	73 a	64 abc	63 ab
4	DAWN	2	AS	0.25	lb ai/a	16	fl oz/a	PRE	A									
5	ALERT	3	ME	0.5	lb ai/a	21.3	fl oz/a	PRE	A	85 abc	82 ab	83 ab	93 a	82 ab	82 a	68 ab	55 bc	58 ab
5	DAWN	2	AS	0.375	lb ai/a	24	fl oz/a	PRE	A									
6	ALERT	3	ME	0.75	lb ai/a	32	fl oz/a	PRE	A	94 a	89 a	76 ab	87 ab	78 ab	83 a	77 a	69 ab	66 ab
6	DAWN	2	AS	0.25	lb ai/a	16	fl oz/a	PRE	A									
7	ALERT	3	ME	0.75	lb ai/a	32	fl oz/a	PRE	A	91 a	91 a	91 a	95 a	89 a	88 a	74 a	58 abc	58 ab
7	DAWN	2	AS	0.375	lb ai/a	24	fl oz/a	PRE	A									
8	DUAL II MAGNUM	7.64	EC	1	lb ai/a	16.8	fl oz/a	PRE	A	73 bc	65 b	50 bc	45 d	33 d	15 ef	53 c	50 cd	50 bc
9	PREFIX	5.29	EC	1.65	lb ai/a	40	fl oz/a	PRE	A	88 ab	88 a	81 ab	81 b	74 bc	71 abc	80 a	74 a	69 a
10	NONTREATED									0 e	0 d	0 d	0 e	0 e	0 f	0 e	0 e	0 d
LSD (P=.05)										16.0	18.9	39.0	10.3	13.4	22.8	14.2	16.9	18.0
Replicate F										0.801	0.504	0.416	0.517	1.633	0.430	1.113	0.990	0.953
Replicate Prob(F)										0.5053	0.6831	0.7429	0.6747	0.2071	0.7334	0.3632	0.4140	0.4310
Treatment F										29.011	19.377	4.938	68.657	35.928	15.464	25.283	13.003	10.606
Treatment Prob(F)										0.0001	0.0001	0.0007	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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

Trial Comments

1. Protocol: Cheminova (CLOM1101).
2. Ratings: CI (overall, chlorosis, stunting, necrosis) at 7, 14, and 28 DAT; WC 21, 35, and 49 DAT.
3. Blanket with glyphosate after final evaluation.
4. Missing data was due to standing water in some plots.
5. Ratings on 6-28-11 at 21 DA-A were highly variable due to standing water/heavy rain.