

Ohio State University Horticulture and Crop Science

Determine efficacy and selectivity of Alert when applied pre to soybeans

Title No. 2:

Trial ID: 11PRES1
Location: Western Branch Big E
Project ID: 11PRES1

Protocol ID: 11PRES1
Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux
Sponsor Contact: Brent Jacobson, Cheminova

General Trial Information

Study Director: Bryan Reeb **Title:** Research Technician
Investigator: Dr. Mark M. Loux **Title:** Professor

Trial Location

City: South Charleston **Latitude of LL Corner** °: 39.86013 N USA 49.376656 - 24.53833
State/Prov.: Ohio **Longitude of LL Corner** °: -83.66985 W -124.715843 - -66.968887
Postal Code: 45368
Country: USA United States

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow AG 3631 **Description:** Round Up Ready
BBCH Scale: BSOY **Planting Date:** Jun-6-2011
Planting Method: SEEDED seeded **Rate, Unit:** 197000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 15 IN
Seed Bed: MEDIUM medium **Soil Temperature, Unit:** 76 F
Soil Moisture: NORMAL normal **Emergence Date:** Jun-13-2011
Harvested Width, Unit: 6.25 FT **Harvested Length, Unit:** 30 FT

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail

Pest 2 Type: W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed

Pest 3 Type: W **Code:** IPOHE *Ipomoea hederacea*
Common Name: Ivyleaf morningglory

Pest 4 Type: W **Code:** SIDSP *Sida spinosa*
Common Name: Prickly sida

Pest 5 Type: W **Code:** HIBTR *Hibiscus trionum*
Common Name: Venice mallow

Pest 6 Type: W **Code:** SOLPT *Solanum ptycanthum*
Common Name: Eastern black nightshade

Pest 7 Type: W **Code:** ABUTH *Abutilon theophrasti*
Common Name: Velvetleaf

Pest 8 Type: W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed

Pest 9 Type: W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters

Pest10 Type: W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 300 FT² **Tillage Type:** CONTIL conventional-till
Replications: 3 **Study Design:** RACOB Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: F-7 East
% OM: 1.8 **Texture:** SIL silt loam
pH: 5.7 **Soil Name:** Crosby Silt Loam
CEC: 16.2 **Fert. Level:** G good
Soil Drainage: G good

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Application Description

A

Application Date: Jun-6-2011
Time of Day: 1:45 P.M.
Application Method: SPRAY
Application Placement: BROFOL
Air Temperature, Unit: 88.6 F
% Relative Humidity: 37.5
Wind Velocity, Unit: 4.4 MPH
Wind Direction: WSW
Dew Presence (Y/N): N no
Soil Temperature, Unit: 76 F
Soil Moisture: GOOD
% Cloud Cover: 15
Next Rain Occurred On: Jun-7-2011

Crop Stage At Each Application

A

Crop 1 Code, BBCH Scale: GLXMA BSOY

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale: SETFA W
Density, Unit: 74.66 M2
Pest 2 Code, Type, Scale: AMBTR W
Density, Unit: 5.33 M2
Pest 3 Code, Type, Scale: IPOHE W
Density, Unit: 2.66 M2
Pest 4 Code, Type, Scale: SIDSP W
Density, Unit: 5.33 M2
Pest 5 Code, Type, Scale: HIBTR W
Density, Unit: 1.33 M2
Pest 6 Code, Type, Scale: SOLPT W
Density, Unit: 2.66 M2
Pest 7 Code, Type, Scale: ABUTH W
Density, Unit: 4 M2
Pest 8 Code, Type, Scale: AMARE W
Density, Unit: 1.33 M2
Pest 9 Code, Type, Scale: CHEAL W
Density, Unit: 1.33 M2
Pest10 Code, Type, Scale: ECHCG W
Density, Unit: 8 M2

Application Equipment

A

Appl. Equipment: Backpack
Equipment Type: SPRBAC
Operation Pressure, Unit: 46 PSI
Nozzle Type: DG
Nozzle Size: 11002
Nozzle Spacing, Unit: 18 IN
Boom Length, Unit: 10 FT
Boom Height, Unit: 18 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 15 gal/ac
Mix Size, Unit: 0.5 gallons
Propellant: COMCO2

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Pest Type						
Pest Code						
Pest Scientific Name						
Pest Name						
Crop Code	GLXMA	GLXMA	GLXMA			
BBCH Scale	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max	Glycine max			
Crop Name	Soybean	Soybean	Soybean			
Rating Date	Oct-11-2011	Oct-11-2011	Oct-11-2011			
Rating Type	YIELD	MOISTURE	YIELD			
Rating Unit	LB	%	BU			
Number of Subsamples	1	1	1			
Days After First/Last Applic.	127 127	127 127	127 127			
Trt-Eval Interval	127 DA-A	127 DA-A	127 DA-A			
Plant-Eval Interval	127 DP-1	127 DP-1	127 DP-1			
Days After Emergence	120 DE-1	120 DE-1	120 DE-1			
ARM Action Codes			TY1			
Number of Decimals	1	1	1			

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Unit Code	19	20	21
1	Alert	0.5 lb ai/a		21.3 oz/a		A	16.2 bc	11.9 a	63.8 cd
2	Alert	0.75 lb ai/a		32 oz/a		A	16.9 abc	11.5 a	67.1 abc
3	Alert	1 lb ai/a		42.7 oz/a		A	16.2 bc	11.7 a	63.9 bcd
4	Alert	0.5 lb ai/a		21.3 oz/a		A	17.4 ab	11.4 a	68.9 abc
4	Dawn	0.25 lb ai/a		16 oz/a		A			
5	Alert	0.5 lb ai/a		21.3 oz/a		A	16.2 bc	10.9 a	64.5 bcd
5	Dawn	0.375 lb ai/a		24 oz/a		A			
6	Alert	0.75 lb ai/a		32 oz/a		A	17.5 ab	11.2 a	69.7 ab
6	Dawn	0.25 lb ai/a		16 oz/a		A			
7	Alert	0.75 lb ai/a		32 oz/a		A	18.1 a	10.8 a	72.2 a
7	Dawn	0.375 lb ai/a		24 oz/a		A			
8	Dual II Magnum	1 lb ai/a		16.8 oz/a		A	15.5 c	11.9 a	61.0 de
9	Prefix	1.65 lb ai/a		40 oz/a		A	17.2 ab	11.1 a	68.5 abc
10	UTC						13.9 d	11.3 a	55.3 e
LSD (P=.05)							1.50	1.02	5.96
Standard Deviation							0.87	0.59	3.48
CV							5.28	5.21	5.31
Bartlett's X2							6.13	14.543	7.334
P(Bartlett's X2)							0.727	0.104	0.602
Replicate F							16.403	5.769	14.292
Replicate Prob(F)							0.0001	0.0116	0.0002
Treatment F							5.721	1.279	5.993
Treatment Prob(F)							0.0008	0.3129	0.0006

Crop Code
GLXMA, BSOY, Glycine max, = US
Rating Type
YIELD = yield
Rating Unit
LB = pound
% = percent

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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BU = bushel
Plant-Eval Interval
127 DP-1 = 1 Jun-6-2011
ARM Action Codes
TY1 = $3.872 * [19] * (100 - [20]) / 86.5$