

Ohio State University Horticulture and Crop Science

Efficacy and selectivity of Rhythm and Dawn when applied post to soybeans

Title No. 2:
 Trial ID: 11POS2 Protocol ID: 11POS2
 Location: Western Branch Study Director: Bryan Reeb
 Project ID: 11POS2 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 °:** 39.86025 N USA 49.376656 - 24.53833
State/Prov.: Ohio **Longitude of LL Corner °:** -83.67139 W -124.715843 - -66.968887
Postal Code: 45368
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Seed Consultants 9330 **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:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters

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

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

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: 4 **Study Design:** RACOB Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: F-7 Middle
% OM: 11.9 **Texture:** SIL silt loam
pH: 6.4 **Soil Name:** Crosby Silt Loam
CEC: 13.3 **Fert. Level:** G good
Soil Drainage: G good

Application Description

A
Application Date: Jun-27-2011
Time of Day: 8:45 A.M.
Application Method: SPRAY
Application Placement: BROFOL
Air Temperature, Unit: 67.5 F
% Relative Humidity: 72.5
Wind Velocity, Unit: 1.9 MPH
Wind Direction: SSW
Dew Presence (Y/N): Y yes
Soil Temperature, Unit: 62 F
Soil Moisture: GOOD
% Cloud Cover: 75
Next Rain Occurred On: Jul-2-2011

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Crop Stage At Each Application

A

Crop 1 Code, BBCH Scale: GLXMA BSOY
Stage Scale Used: BBCH
Stage Majority, Percent: V3
Height, Unit: 3 IN
Height Minimum, Maximum: 3 4

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale: SETFA W
Stage Majority, Percent: 13
Height, Unit: 2 IN
Height Minimum, Maximum: 2 3
Density, Unit: 60 M2
Pest 2 Code, Type, Scale: CHEAL W
Stage Majority, Percent: 14
Height, Unit: 1 IN
Height Minimum, Maximum: 1 1
Density, Unit: 2 M2
Pest 3 Code, Type, Scale: IPOHE W
Stage Majority, Percent: 12
Height, Unit: 1 IN
Height Minimum, Maximum: 1 1
Density, Unit: 5 M2
Pest 4 Code, Type, Scale: SIDSP W
Stage Majority, Percent: 12
Height, Unit: 1 IN
Height Minimum, Maximum: 1 1
Density, Unit: 3 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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Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	18	19	20
	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.						106	106	106
	Trt-Eval Interval						106 DA-A	106 DA-A	106 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
1	Rhythm	0.294 lb ai/a		20 oz/a		A	13.9 b	10.1 b	56.0 a
1	Select Max	0.047 lb ai/a		6 oz/a		A			
1	N-pak ams	2.5 % v/v		1.5 qt/a		A			
2	Rhythm	0.147 lb ai/a		10 oz/a		A	14.9 ab	9.6 b	60.1 a
2	Glyfos X-TRA	0.75 lb ae/a		32 oz/a		A			
3	Rhythm	0.294 lb ai/a		20 oz/a		A	14.6 ab	10.0 b	58.7 a
3	Glyfos X-TRA	0.75 lb ae/a		32 oz/a		A			
4	Dawn	0.375 lb ai/a		24 oz/a		A	14.0 ab	10.7 b	55.9 a
4	Select Max	0.047 lb ai/a		6 oz/a		A			
4	NIS	0.25 % v/v		0.15 qt/a		A			
5	Flexstar	0.294 lb ai/a		20 oz/a		A	14.8 ab	10.0 b	59.5 a
5	Select Max	0.047 lb ai/a		6 oz/a		A			
5	N-pak ams	2.5 % v/v		1.5 qt/a		A			
6	Tackle	1.03 lb ae/a		32 oz/a		A	15.4 ab	10.0 b	61.9 a
6	NIS	0.25 % v/v		0.15 qt/a		A			
6	N-pak ams	2.5 % v/v		1.5 qt/a		A			
7	Flexstar GT 3.5	1.25 lb ai/a		3.5 pt/a		A	15.8 a	10.3 b	63.5 a
7	MSO	1 % v/v		0.6 qt/a		A			
8	UTC						11.2 c	16.1 a	42.4 b
	LSD (P=.05)						1.86	1.34	7.64
	Standard Deviation						1.27	0.91	5.20
	CV						8.85	8.39	9.08
	Bartlett's X2						3.446	35.36	3.401
	P(Bartlett's X2)						0.841	0.001*	0.846
	Replicate F						12.841	1.476	11.904
	Replicate Prob(F)						0.0001	0.2499	0.0001
	Treatment F						4.849	21.816	6.352
	Treatment Prob(F)						0.0022	0.0001	0.0004

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

YIELD = yield

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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Rating Unit

LB = pound
% = percent
BU = bushel

Plant-Eval Interval

127 DP-1 = 1 Jun-6-2011

ARM Action Codes

TY1 = $3.872 * [18] * (100 - [19]) / 86.5$