

The Ohio State University

Postemergence residual trial

Trial ID: 13 RESPOST Location: Western Branch Trial Year: 2013
 Protocol ID: 13 RESPOST Investigator: Dr. Mark M. Loux
 Project ID: 4600.22381 Study Director: Bryan Reeb
 Sponsor Contact: Eric Ott, Valent

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Pioneer 93 Y 05 **BBCH Scale:** BSOY
Description: Roundup Ready

Planting Rate, Unit: 150000 S/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 15 IN
Soil Moisture: GOOD good
Seed Bed: FINE fine

Planting Date: May-15-2013
Planting Method: PLANTD planted
Planting Equipment: PP Plot Planter
Emergence Date: May-23-2013

Pest Description

Pest 1 Type: W **Code:** IPOHE Ipomoea hederacea
Common Name: Ivyleaf morningglory

Pest 2 Type: W **Code:** CHEAL Chenopodium album
Common Name: Common lambsquarters

Pest 3 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 4 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed

Site and Design

Treated Plot Width: 6 FT
Treated Plot Length: 30 FT
Treated Plot Area: 180 FT² **Treatments:** 8
Replications: 3

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)

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

Application Description

Application Date: Jun-12-2013
Appl. Start Time: 8:30 AM
Application Method: SPRAY
Application Timing: POST
Application Placement: BROFOL
Air Temperature, Unit: 75.1 F
% Relative Humidity: 82.2
Wind Velocity, Unit: 2.3 MPH
Wind Direction: SSW
Dew Presence (Y/N): N no
Soil Temperature, Unit: 68 F
Soil Moisture: MOIST
Next Moisture Occurred On: Jun-13-2013

Crop Stage At Each Application

Crop 1 Code, BBCH Scale: GLXMA BSOY
Stage Scale Used: BBCH
Stage Majority, Percent: 13
Height, Unit: 7.5 IN
Height Minimum, Maximum: 7 8

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Pest Stage At Each Application

A

Pest 1 Code, Type, Scale: IPOHE W
Stage Majority, Percent: 13 100
Stage Minimum, Percent: 13 100
Stage Maximum, Percent: 13 100
Height, Unit: 1 IN
Height Minimum, Maximum: 1 2
Density, Unit: 4 M2

Pest 2 Code, Type, Scale: CHEAL W
Stage Majority, Percent: 17 100
Stage Minimum, Percent: 17 100
Stage Maximum, Percent: 17 100
Height, Unit: 2 IN
Height Minimum, Maximum: 2 3
Density, Unit: 40 M2

Pest 3 Code, Type, Scale: SETFA W
Height, Unit: 1 IN
Height Minimum, Maximum: 1 2
Density, Unit: 248 M2

Pest 4 Code, Type, Scale: AMARE W
Stage Majority, Percent: 14 100
Stage Minimum, Percent: 14 100
Stage Maximum, Percent: 14 100
Height, Unit: 1 IN
Height Minimum, Maximum: 1 2
Density, Unit: 24 M2

Application Equipment

A

Appl. Equipment: Backpack
Equipment Type: SPRBAC
Operation Pressure, Unit: 52 PSI
Nozzle Type: DG
Nozzle Size: 8002
Nozzle Spacing, Unit: 18 IN
Boom Length, Unit: 6.67 FT
Boom Height, Unit: 18 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 20 gal/ac
Mix Size, Unit: 1 Liters
Propellant: COMCO2

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Pest Code			SETFA	ECHCG	AMBTR	CHEAL	AMARE					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Rating Date	Jun-19-2013	Jun-25-2013	Jun-25-2013	Jun-25-2013	Jun-25-2013	Jun-25-2013	Jun-25-2013					
Rating Type	PHYNEC	PHYNEC	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%	%	%					
Days After First/Last Applic.	7 7	13 13	13 13	13 13	13 13	13 13	13 13					
Trt-Eval Interval	7 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A					
Plant-Eval Interval	35 DP-1	41 DP-1	41 DP-1	41 DP-1	41 DP-1	41 DP-1	41 DP-1					
Days After Emergence	27 DE-1	33 DE-1	33 DE-1	33 DE-1	33 DE-1	33 DE-1	33 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Code	1	2	3	4	5	6	7
1	Roundup Power Max	32 oz/a		A		2	1	77	77	63	100	100
	1 N-pak ams	2 qt/a		A								
2	Prefix	1 qt/a		A		13	10	99	100	88	100	100
	2 Roundup Power Max	32 oz/a		A								
	2 N-pak ams	2 qt/a		A								
	2 COC	1.34 qt/a		A								
3	Cobra	12.5 oz/a		A		35	13	96	98	87	100	100
	3 V-10206	1.5 oz wt/a		A								
	3 Roundup Power Max	32 oz/a		A								
	3 N-pak ams	2 qt/a		A								
	3 COC	1.34 qt/a		A								
4	Cobra	12.5 oz/a		A		38	13	98	98	84	100	100
	4 V-10206	2.0 oz wt/a		A								
	4 Roundup Power Max	32 oz/a		A								
	4 N-pak ams	2 qt/a		A								
	4 COC	1.34 qt/a		A								
5	Cobra	12.5 oz/a		A		38	12	90	90	83	100	100
	5 Warrant	3 pt/a		A								
	5 Roundup Power Max	32 oz/a		A								
	5 N-pak ams	2 qt/a		A								
	5 COC	1.34 qt/a		A								
6	Cobra	12.5 oz/a		A		42	14	100	98	87	100	100
	6 Dual II Magnum	1.330 pt/a		A								
	6 Roundup Power Max	32 oz/a		A								
	6 N-pak ams	2 qt/a		A								
	6 COC	1.34 qt/a		A								
7	Firstrate	0.3 oz/a		A		33	11	88	88	88	100	100
	7 Cobra	12.5 oz/a		A								
	7 Roundup Power Max	32 oz/a		A								
	7 N-pak ams	2 qt/a		A								
	7 COC	1.34 qt/a		A								
8	UTC					0	0	0	0	0	0	0
LSD (P=.05)						4.9	3.3	5.4	6.3	9.2	0.0	0.0
Standard Deviation						2.8	1.9	3.1	3.6	5.2	0.0	0.0
CV						11.13	20.36	3.83	4.45	7.2	0.0	0.0
Bartlett's X2						6.179	1.918	5.66	1.824	5.961	0.0	0.0
P(Bartlett's X2)						0.403	0.927	0.341	0.873	0.428	.	.
Skewness						-0.5707	-0.8001	-2.1585*	-2.1468*	-2.0214*	-2.4219*	-2.4219*
Kurtosis						-1.4858	-0.8279	3.3737*	3.3386*	2.936*	4.2103*	4.2103*
Replicate F						0.866	1.832	1.436	0.290	1.031	0.000	0.000
Replicate Prob(F)						0.4418	0.1964	0.2707	0.7527	0.3821	1.0000	1.0000
Treatment F						115.681	26.409	353.066	261.250	101.865	0.000	0.000
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	1.0000

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Pest Code		SETFA	ECHCG	AMBTR	CHEAL	AMARE	SETFA	ECHCG					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Rating Date		Jul-9-2013	Jul-9-2013	Jul-9-2013	Jul-9-2013	Jul-9-2013	Jul-24-2013	Jul-24-2013					
Rating Type		PHYSTU	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit		%	%	%	%	%	%	%					
Days After First/Last Applic.		27 27	27 27	27 27	27 27	27 27	42 42	42 42					
Trt-Eval Interval		27 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A	42 DA-A	42 DA-A					
Plant-Eval Interval		55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1	70 DP-1	70 DP-1					
Days After Emergence		47 DE-1	47 DE-1	47 DE-1	47 DE-1	47 DE-1	62 DE-1	62 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Code	8	9	10	11	12	13	14	15
1	Roundup Power Max	32 oz/a		A		0	100	100	68	100	100	100	99
	1 N-pak ams	2 qt/a		A									
2	Prefix	1 qt/a		A		3	100	100	83	100	100	100	99
	2 Roundup Power Max	32 oz/a		A									
	2 N-pak ams	2 qt/a		A									
	2 COC	1.34 qt/a		A									
3	Cobra	12.5 oz/a		A		7	100	100	70	100	100	98	100
	3 V-10206	1.5 oz wt/a		A									
	3 Roundup Power Max	32 oz/a		A									
	3 N-pak ams	2 qt/a		A									
	3 COC	1.34 qt/a		A									
4	Cobra	12.5 oz/a		A		6	100	100	67	100	100	100	97
	4 V-10206	2.0 oz wt/a		A									
	4 Roundup Power Max	32 oz/a		A									
	4 N-pak ams	2 qt/a		A									
	4 COC	1.34 qt/a		A									
5	Cobra	12.5 oz/a		A		7	100	93	70	100	100	95	97
	5 Warrant	3 pt/a		A									
	5 Roundup Power Max	32 oz/a		A									
	5 N-pak ams	2 qt/a		A									
	5 COC	1.34 qt/a		A									
6	Cobra	12.5 oz/a		A		7	100	100	63	100	100	100	98
	6 Dual II Magnum	1.330 pt/a		A									
	6 Roundup Power Max	32 oz/a		A									
	6 N-pak ams	2 qt/a		A									
	6 COC	1.34 qt/a		A									
7	Firstrate	0.3 oz/a		A		5	97	93	78	100	100	97	93
	7 Cobra	12.5 oz/a		A									
	7 Roundup Power Max	32 oz/a		A									
	7 N-pak ams	2 qt/a		A									
	7 COC	1.34 qt/a		A									
8	UTC					0	0	0	0	0	0	0	0
LSD (P=.05)						3.2	1.8	5.2	10.6	0.0	0.0	4.1	4.1
Standard Deviation						1.8	1.0	3.0	6.0	0.0	0.0	2.3	2.3
CV						40.91	1.17	3.48	9.64	0.0	0.0	2.72	2.72
Bartlett's X2						0.971	0.0	0.0	2.662	0.0	0.0	0.822	6.192
P(Bartlett's X2)						0.965	.	.	0.85	.	.	0.663	0.288
Skewness						-0.1337	-2.4137*	-2.3634*	-1.9148*	-2.4219*	-2.4219*	-2.3932*	-2.3811*
Kurtosis						-1.4194	4.1852*	4.0276*	2.8077*	4.2103*	4.2103*	4.122*	4.086*
Replicate F						0.614	1.000	0.467	3.098	0.000	0.000	0.568	4.324
Replicate Prob(F)						0.5553	0.3927	0.6365	0.0769	1.0000	1.0000	0.5794	0.0345
Treatment F						8.556	3569.715	407.200	56.131	0.000	0.000	663.676	666.589
Treatment Prob(F)						0.0004	0.0001	0.0001	0.0001	1.0000	1.0000	0.0001	0.0001

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Pest Code		AMBTR	CHEAL	AMARE
Crop Code		GLXMA	GLXMA	GLXMA
Rating Date		Jul-24-2013	Jul-24-2013	Jul-24-2013
Rating Type		CONTRO	CONTRO	CONTRO
Rating Unit		%	%	%
Days After First/Last Applic.		42 42	42 42	42 42
Trt-Eval Interval		42 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval		70 DP-1	70 DP-1	70 DP-1
Days After Emergence		62 DE-1	62 DE-1	62 DE-1
Trt Treatment	Other	Other	Appl	
No. Name	Rate	Rate	Unit Code	
				16 17 18
1 Roundup Power Max	32 oz/a	A		63 100 100
1 N-pak ams	2 qt/a	A		
2 Prefix	1 qt/a	A		83 100 100
2 Roundup Power Max	32 oz/a	A		
2 N-pak ams	2 qt/a	A		
2 COC	1.34 qt/a	A		
3 Cobra	12.5 oz/a	A		63 100 100
3 V-10206	1.5 oz wt/a	A		
3 Roundup Power Max	32 oz/a	A		
3 N-pak ams	2 qt/a	A		
3 COC	1.34 qt/a	A		
4 Cobra	12.5 oz/a	A		57 100 100
4 V-10206	2.0 oz wt/a	A		
4 Roundup Power Max	32 oz/a	A		
4 N-pak ams	2 qt/a	A		
4 COC	1.34 qt/a	A		
5 Cobra	12.5 oz/a	A		57 100 100
5 Warrant	3 pt/a	A		
5 Roundup Power Max	32 oz/a	A		
5 N-pak ams	2 qt/a	A		
5 COC	1.34 qt/a	A		
6 Cobra	12.5 oz/a	A		50 98 100
6 Dual II Magnum	1.330 pt/a	A		
6 Roundup Power Max	32 oz/a	A		
6 N-pak ams	2 qt/a	A		
6 COC	1.34 qt/a	A		
7 Firstrate	0.3 oz/a	A		70 100 100
7 Cobra	12.5 oz/a	A		
7 Roundup Power Max	32 oz/a	A		
7 N-pak ams	2 qt/a	A		
7 COC	1.34 qt/a	A		
8 UTC				0 0 0
LSD (P=.05)				12.2 1.8 0.0
Standard Deviation				6.9 1.0 0.0
CV				12.53 1.17 0.0
Bartlett's X2				2.054 0.0 0.0
P(Bartlett's X2)				0.842 . .
Skewness				-1.3919* -2.4176* -2.4219*
Kurtosis				1.8064 4.1971* 4.2103*
Replicate F				0.605 1.000 0.000
Replicate Prob(F)				0.5598 0.3927 1.0000
Treatment F				37.519 3583.858 0.000
Treatment Prob(F)				0.0001 0.0001 1.0000

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Pest Code

SETFA, *Setaria faberi*, = US
ECHCG, *Echinochloa crus-galli*, = US
AMBTR, *Ambrosia trifida*, = US
CHEAL, *Chenopodium album*, = US
AMARE, *Amaranthus retroflexus*, = US

Crop Code

GLXMA, BSOY, *Glycine max*, = US

Rating Type

PHYNEC = phytotoxicity - necrosis /burn
CONTRO = control / burndown or knockdown
PHYSTU = phytotoxicity - stunting

Rating Unit

% = percent

Plant-Eval Interval

35 DP-1 = 1 GLXMA May-15-2013
41 DP-1 = 1 GLXMA May-15-2013
55 DP-1 = 1 GLXMA May-15-2013
70 DP-1 = 1 GLXMA May-15-2013