

Ohio State University  
Horticulture and Crop Science

Common and Giant Ragweed post efficacy

Title No. 2:  
 Trial ID: 12 POS2 Protocol ID: 12 POS2  
 Location: Western Branch Study Director: Bryan Reeb  
 Project ID: V-10206 MD 64.01 Investigator: Dr. Mark M. Loux  
 Sponsor Contact: Eric Ott, Valent

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 °: 39.8594 N  
 State/Prov.: Ohio Longitude of LL Corner °: 83.67413 W  
 Postal Code: 45368  
 Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean  
 Variety: Pioneer 93Y51 Description: Round Up Ready  
 BBCH Scale: BSOY Planting Date: May-18-2012  
 Planting Method: PLANTD planted Rate, Unit: 155000 S/A  
 Depth, Unit: 0.75 IN  
 Row Spacing, Unit: 15 IN  
 Seed Bed: COARSE coarse  
 Soil Moisture: DRY dry  
 Harvest Date: Oct-17-2012 Emergence Date: May-29-2012  
 Harvested Width, Unit: 6.25 FT Harvested Length, Unit: 30 FT  
 % Standard Moisture: 13.0 Moisture Meter: HARVEST MASTER  
 Weighing Equipment: HARVEST MASTER 401

Pest Description

Pest 1 Type: W Code: SETFA Setaria faberi  
 Common Name: Giant foxtail  
 Pest 2 Type: W Code: AMARE Amaranthus retroflexus  
 Common Name: Redroot pigweed  
 Pest 3 Type: W Code: CHEAL Chenopodium album  
 Common Name: Common lambsquarters  
 Pest 4 Type: W Code: AMBTR Ambrosia trifida  
 Common Name: Giant ragweed  
 Pest 5 Type: W Code: ABUTH Abutilon theophrasti  
 Common Name: velvetleaf  
 Pest 6 Type: W Code: IPOHE Ipomoea hederacea  
 Common Name: Ivyleaf morningglory

Site and Design

Plot Width, Unit: 6 FT Site Type: FIELD field  
 Plot Length, Unit: 40 FT Experimental Unit: 1 PLOT plot  
 Plot Area, Unit: 240 FT2 Tillage Type: CONTIL conventional-till  
 Replications: 4 Study Design: RACOB L Randomized Complete Block (RCB)  
 Untreated Arrangement: INCLUDED single control randomized in each block

No. Previous Crop Year  
 1. CORN 2011

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Unit
1.	Jul-12-2012	SELECT MAX	12	OZ
2.	Jul-12-2012	COC	1	%

Comment: SETFA - 24-30"  
 SOYBEANS - 22-24" R2

Soil Description

Description Name: G-6  
 % OM: 2.2 Texture: SIL silt loam  
 pH: 6.3 Soil Name: Crosby  
 CEC: 13.6 Fert. Level: G good  
 Soil Drainage: G good

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Application Description

	A	B
Application Date:	Jun-20-2012	Jun-26-2012
Time of Day:	8:00 AM	8:30 AM
Application Method:	SPRAY	SPRAY
Application Timing:	EPO	MPO
Application Placement:	BROFOL	BROFOL
Applied By:	REEB	REEB
Air Temperature, Unit:	79 F	63.7 F
% Relative Humidity:	79	58.4
Wind Velocity, Unit:	2 MPH	5 MPH
Wind Direction:	N	NE
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	72 F	68 F
Soil Moisture:	MOIST	DRY
% Cloud Cover:	0	0
Next Rain Occurred On:	Jun-29-2012	Jun-29-2012

Crop Stage At Each Application

	A		B	
Crop 1 Code, BBCH Scale:	GLXMA	BSOY	GLXMA	BSOY
Stage Scale Used:	BBCH		BBCH	
Stage Majority, Percent:	15	100	17	100
Height, Unit:	8	IN	10	IN
Height Minimum, Maximum:	7	8	10	12

Pest Stage At Each Application

	A		B	
Pest 1 Code, Type, Scale:	SETFA	W	SETFA	W
Stage Majority, Percent:	12	100	19	100
Height, Unit:	8	IN	12	IN
Height Minimum, Maximum:	6	8	8	16
Density, Unit:	55	M2	55	M2
Pest 2 Code, Type, Scale:	AMARE	W	AMARE	W
Stage Majority, Percent:	12	100	16	100
Height, Unit:	1.5	IN	6	IN
Height Minimum, Maximum:	1	2	4	6
Density, Unit:	16	M2	16	M2
Pest 3 Code, Type, Scale:	CHEAL	W	CHEAL	W
Stage Majority, Percent:	13	100	15	100
Height, Unit:	1.5	IN	6	IN
Height Minimum, Maximum:	1	2	4	6
Density, Unit:	3	M2	3	M2
Pest 4 Code, Type, Scale:	AMBTR	W	AMBTR	W
Stage Majority, Percent:	16	100	19	100
Height, Unit:	8	IN	13	IN
Height Minimum, Maximum:	6	8	8	13
Density, Unit:	5	M2	5	M2
Pest 5 Code, Type, Scale:	ABUTH	W	ABUTH	W
Stage Majority, Percent:	12	100	14	100
Height, Unit:	1.5	IN	6	IN
Height Minimum, Maximum:	1	2	4	6
Density, Unit:	2	M2	2	M2
Pest 6 Code, Type, Scale:	IPOHE	W	IPOHE	W
Stage Majority, Percent:	12	100	14	100
Height, Unit:	2	IN	4	IN
Height Minimum, Maximum:	1	2	2	5
Density, Unit:	1	M2	1	M2

Application Equipment

	A	B
Appl. Equipment:	Backpack	Backpack
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	44 PSI	44 PSI
Nozzle Type:	AIXR	AIXR
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	18 IN	18 IN
Boom Length, Unit:	6 FT	6 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 gal/ac	15 gal/ac
Mix Size, Unit:	2 Liters	2 Liters
Propellant:	COMCO2	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-17-2012	Oct-17-2012	Oct-17-2012
Rating Type	YIELD	MOICON	YIELD
Rating Unit	LBS	%	BU
Number of Subsamples	1	1	1
Days After First/Last Applic.	119 113	119 113	119 113
Trt-Eval Interval			
Plant-Eval Interval	152 DP-1	152 DP-1	152 DP-1
Days After Emergence	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	18	19	20
1	UTC							9.1 e	11.5 a	35.7 e
2	Cobra	0.156 lb ai/a		10 oz/a		2-4" GRW A		13.3 ab	11.6 a	52.3 ab
2	COC	0.625 % v/v		1 pt/a		2-4" GRW A				
2	N-pak ams	2.5 % v/v		2 qt/a		2-4" GRW A				
3	Cobra	0.188 lb ai/a		12 oz/a		2-4" GRW A		12.7 ab	11.4 a	50.0 ab
3	COC	0.625 % v/v		1 pt/a		2-4" GRW A				
3	N-pak ams	2.5 % v/v		2 qt/a		2-4" GRW A				
4	Cobra	0.156 lb ai/a		10 oz/a		2-4" GRW A		13.8 a	11.5 a	54.6 a
4	V-10206	0.08 lb ai/a		1.5 oz/a		2-4" GRW A				
4	COC	0.625 % v/v		1 pt/a		2-4" GRW A				
4	N-pak ams	2.5 % v/v		2 qt/a		2-4" GRW A				
5	Cobra	0.188 lb ai/a		12 oz/a		2-4" GRW A		12.4 abc	11.4 a	48.7 abc
5	V-10206	0.096 lb ai/a		1.8 oz/a		2-4" GRW A				
5	COC	0.625 % v/v		1 pt/a		2-4" GRW A				
5	N-pak ams	2.5 % v/v		2 qt/a		2-4" GRW A				
6	Prefix	0.99 lb ai/a		1.5 pt/a		2-4" GRW A		12.8 ab	11.5 a	50.3 ab
6	COC	0.625 % v/v		1 pt/a		2-4" GRW A				
6	N-pak ams	2.5 % v/v		2 qt/a		2-4" GRW A				
7	Cobra	0.156 lb ai/a		10 oz/a		4-6" GRW B		10.7 cde	11.6 a	42.0 cde
7	COC	0.625 % v/v		1 pt/a		4-6" GRW B				
7	N-pak ams	2.5 % v/v		2 qt/a		4-6" GRW B				
8	Cobra	0.188 lb ai/a		12 oz/a		4-6" GRW B		11.4 bcd	11.6 a	44.9 bcd
8	COC	0.625 % v/v		1 pt/a		4-6" GRW B				
8	N-pak ams	2.5 % v/v		2 qt/a		4-6" GRW B				
9	Cobra	0.156 lb ai/a		10 oz/a		4-6" GRW B		11.5 bcd	11.4 a	45.5 bcd
9	V-10206	0.08 lb ai/a		1.5 oz/a		4-6" GRW B				
9	COC	0.625 % v/v		1 pt/a		4-6" GRW B				
9	N-pak ams	2.5 % v/v		2 qt/a		4-6" GRW B				
10	Cobra	0.188 lb ai/a		12 oz/a		4-6" GRW B		12.0 a-d	11.3 a	47.2 a-d
10	V-10206	0.096 lb ai/a		1.8 oz/a		4-6" GRW B				
10	COC	0.625 % v/v		1 pt/a		4-6" GRW B				
10	N-pak ams	2.5 % v/v		2 qt/a		4-6" GRW B				
11	Prefix	0.99 lb ai/a		1.5 pt/a		4-6" GRW B		11.4 bcd	11.4 a	44.9 bcd

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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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-17-2012	Oct-17-201	Oct-17-2012					
Rating Type	YIELD	MOICON	YIELD					
Rating Unit	LBS	%	BU					
Number of Subsamples	1	1	1					
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Plant-Eval Interval	152 DP-1	152 DP-1	152 DP-1					
Days After Emergence	141 DE-1	141 DE-1	141 DE-1					
ARM Action Codes	TY1							
Number of Decimals	1	1	1					
Trt Treatment	Rate	Other Rate	Other Rate	Growth Stage	Appl Code	18	19	20
11 COC	0.625 % v/v	1 pt/a		4-6" GRW B				
12 Cobra	0.156 lb ai/a	10 oz/a		4-6" GRW B		11.4 bcd	11.5 a	44.9 bcd
12 Resource	0.027 lb ai/a	4 oz/a		4-6" GRW B				
12 COC	0.625 % v/v	1 pt/a		4-6" GRW B				
12 N-pak ams	2.5 % v/v	2 qt/a		4-6" GRW B				
12 NIS	0.25 % v/v	0.2 qt/a		4-6" GRW B				
13 Cobra	0.188 lb ai/a	12 oz/a		4-6" GRW B		10.2 de	11.6 a	40.3 de
13 Resource	0.0403 lb ai/a	6 oz/a		4-6" GRW B				
13 COC	0.625 % v/v	1 pt/a		4-6" GRW B				
13 N-pak ams	2.5 % v/v	2 qt/a		4-6" GRW B				
13 NIS	0.25 % v/v	0.2 qt/a		4-6" GRW B				
14 Cadet	0.0064 lb ai/a	0.9 oz/a		4-6" GRW B		11.8 bcd	11.5 a	46.6 bcd
14 NIS	0.25 % v/v	0.2 qt/a		4-6" GRW B				
LSD (P=.05)						1.97	0.27	7.77
Standard Deviation						1.38	0.19	5.44
CV						11.76	1.63	11.75

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

YIELD = yield

MOICON = moisture content

Rating Unit

% = percent

BU = bushel

Plant-Eval Interval

152 DP-1 = 1 GLXMA May-18-2012

ARM Action CodesTY1 =  $3.872 * [18] * (100 - [19]) / 87$