

The Ohio State University

TO DETERMINE HERBICIDAL EFFICACY AND SELECTVITY OF STATEMENT WHEN APPLIED PRE TO SOYBEAN IN 2013

Trial ID: 13 PREPOS1
Protocol ID: 13 PREPOS1
Project ID: HGLXMAFOMME1301,1302

Location: Western Branch Trial Year: 2013
Investigator: Dr. Mark M. Loux
Study Director: Bryan Reeb
Sponsor Contact: Brent Jacobson, Cheminova

Objectives:

TX_RTF32 13.0.501.502;COMPARE THE ACTIVITY OF STATEMENT TO PREFIX & OTHER COMMERCIAL HERBICIDES WHEN APPLIED PRE TO SOYBEAN

Crop Description

Crop 1: GLXMA Glycine max
Variety: Seed Consultants 9362
Description: Roundup Ready

BBCH Scale: BSOY

Planting Rate, Unit: 140000 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:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed

Pest 2 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: velvetleaf

Pest 3 Type: W **Code:** CHEAL Chenopodium album
Common Name: Common lambsquarters

Pest 4 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 5 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Pest 6 Type: W **Code:** SOLCA Solanum carolinense
Common Name: Horsenettle

Pest 7 Type: W **Code:** AMBEL Ambrosia artemisiifolia
Common Name: Common ragweed

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 40 FT
Treated Plot Area: 266.8 FT2 **Treatments:** 12
Replications: 4

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

Soil Description

Description Name: F-7 West
% OM: 3.1 **Texture:** SICL silty clay loam
pH: 7.1 **Soil Name:** Kokomo Silty Clay Loam
CEC: 22.2 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	May-16-2013	Jun-4-2013
Appl. Start Time:	8:30	9:00 AM
Appl. Stop Time:	8:45 AM	
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Application Placement:	BROSOI	BROFOL
Applied By:		REEB
Air Temperature, Unit:	67.8 F	61 F
% Relative Humidity:	78.4	58
Wind Velocity, Unit:	1.9 MPH	1 MPH
Wind Direction:	NNW	SE
Dew Presence (Y/N):		Y yes
Soil Temperature, Unit:	62 F	58 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	100	10
Next Moisture Occurred On:	May-17-2013	Jun-6-2013

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Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH
Stage Majority, Percent:		12 100
Height, Unit:		3 IN
Height Minimum, Maximum:		3 4

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMARE W	AMARE W
Stage Majority, Percent:		14 100
Height, Unit:		1 IN
Height Minimum, Maximum:		0.5 1
Density, Unit:		8 M2
Pest 2 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:		14 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 2
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:		14 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 1
Density, Unit:		44 M2
Pest 4 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:		13 100
Height, Unit:		3 IN
Height Minimum, Maximum:		3 4
Density, Unit:		152 M2
Pest 5 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:		14 100
Height, Unit:		2 IN
Height Minimum, Maximum:		2 4
Density, Unit:		24 M2
Pest 6 Code, Type, Scale:	SOLCA W	SOLCA W
Stage Majority, Percent:		14 100
Height, Unit:		4 IN
Height Minimum, Maximum:		4 4
Pest 7 Code, Type, Scale:	AMBEL W	AMBEL W
Stage Majority, Percent:		14 100
Height, Unit:		2 IN
Height Minimum, Maximum:		2 3

Application Equipment

	A	B
Appl. Equipment:	Backpack	Backpack
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	48 PSI	48 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

Date	By	Notes
Jun-20-2013		49 Day after pre treatment overlay for the pre only treatments, Glyphosate @ 22 oz

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Pest Code	AMBTR	SETFA	CHEAL	HIBTR	SETFA	AMBTR	CHEAL	AMARE					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Rating Date	Jun-7-2013	Jun-7-2013	Jun-7-2013	Jun-7-2013	Jun-19-2013	Jun-19-2013	Jun-19-2013	Jun-19-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%	%	%	%					
Days After First/Last Applic.	22 3	22 3	22 3	22 3	34 15	34 15	34 15	34 15					
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1					
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	15 DE-1	27 DE-1	27 DE-1	27 DE-1	27 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Code	1	2	3	4	5	6	7	8
1	STATEMENT	32 fl oz/a		A		18	38	5	7	11	9	5	0
2	STATEMENT	40 fl oz/a		A		15	23	6	7	8	11	11	5
3	PREFIX	32 fl oz/a		A		15	39	8	11	49	15	24	73
4	PREFIX	40 fl oz/a		A		18	45	23	28	39	17	26	56
5	STATEMENT	32 fl oz/a		B						89	81	82	91
	5 Glyphos X-tra	22 oz/a		B									
	5 N-pak ams	1.5 qt/a		B									
6	STATEMENT	40 fl oz/a		B						89	75	75	89
	6 Glyphos X-tra	22 oz/a		B									
	6 N-pak ams	1.5 qt/a		B									
7	RHYTHM	25.5 fl oz/a		B						88	66	78	78
	7 Glyphos X-tra	22 oz/a		B									
	7 N-pak ams	1.5 qt/a		B									
8	DAWN	24 fl oz/a		B						75	75	73	72
	8 Glyphos X-tra	22 oz/a		B									
	8 N-pak ams	1.5 qt/a		B									
9	PREFIX	32 fl oz/a		B						94	69	80	80
	9 Glyphos X-tra	22 oz/a		B									
	9 N-pak ams	1.5 qt/a		B									
10	PREFIX	40 fl oz/a		B						91	81	83	97
	10 Glyphos X-tra	22 oz/a		B									
	10 N-pak ams	1.5 qt/a		B									
11	Glyphos X-tra	22 oz/a		B						76	62	64	68
	11 N-pak ams	1.5 qt/a		B									
12	UNTREATED					0	0	0	0	0	0	0	0
LSD (P=.05)						21.7	19.9	2.2t	14.6t	24.3	14.6t	15.2t	22.7t
Standard Deviation						14.1	12.9	1.4t	9.5t	16.8	10.1t	10.5t	15.7t
CV						108.1	44.85	53.78	58.08	28.56	24.58	24.32	32.45
Bartlett's X2						0.735	0.732	1.271	0.276	38.011	14.15	18.555	12.588
P(Bartlett's X2)						0.865	0.866	0.736	0.964	0.001*	0.166	0.046*	0.182
Skewness						0.5534	0.3836	0.7169	0.3285	-0.7028*	-0.4185	-0.7044*	-0.7198*
Kurtosis						-1.4398	-1.4101	-0.7327	-1.1685	-1.3077	-1.193	-0.9109	-0.9026
Replicate F						2.329	9.972	6.096	7.172	1.364	8.704	3.449	1.277
Replicate Prob(F)						0.1261	0.0014	0.0092	0.0051	0.2719	0.0002	0.0284	0.3008
Treatment F						1.101	7.857	4.294	5.934	18.356	20.183	19.809	12.783
Treatment Prob(F)						0.4000	0.0024	0.0219	0.0071	0.0001	0.0001	0.0001	0.0001

t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Missing data estimates are included in columns: Yates=5,6,7,15,16,17; Average=8

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Pest Code

AMBTR, Ambrosia trifida, = US
SETFA, Setaria faberi, = US
CHEAL, Chenopodium album, = US
HIBTR, Hibiscus trionum, = US
AMARE, Amaranthus retroflexus, = US
SIDSP, Sida spinosa, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

23 DP-1 = 1 GLXMA May-15-2013
35 DP-1 = 1 GLXMA May-15-2013
47 DP-1 = 1 GLXMA May-15-2013
63 DP-1 = 1 GLXMA May-15-2013