

The Ohio State University

Valent Pre vs Competitor

Trial ID: 13 PREYLD Location: Western Branch Trial Year: 2013
 Protocol ID: 13 PREYLD Investigator: Dr. Mark M. Loux
 Project ID: 4600.22445 Study Director: Bryan Reeb
 Sponsor Contact: Eric Ott, Valent

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 3533 **BBCH Scale:** BSOY
Description: Roundup Ready

Planting Rate, Unit: 140000 S/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 15 IN
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:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Pest 2 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 3 Type: W **Code:** APCCA Apocynum cannabinum
Common Name: Hemp dogbane

Pest 4 Type: W **Code:** CHEAL Chenopodium album
Common Name: Common lambsquarters

Pest 5 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 30 FT
Treated Plot Area: 200.1 FT2 **Treatments:** 8
Replications: 6

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

	A	B	C
Application Date:	May-16-2013	Jun-12-2013	Jun-19-2013
Appl. Start Time:	8:30	8:30 AM	8:30 AM
Appl. Stop Time:	8:45 AM		
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	POST	POST
Application Placement:	BROSOL	BROFOL	BROFOL
Air Temperature, Unit:	67.8 F	75.1 F	64 F
% Relative Humidity:	78.4	82.2	68
Wind Velocity, Unit:	1.9 MPH	2.3 MPH	4 MPH
Wind Direction:	NNW	SSW	NE
Dew Presence (Y/N):		N no	Y yes
Soil Temperature, Unit:	62 F	68 F	60 F
Soil Moisture:	NORMAL	MOIST	MOIST
% Cloud Cover:	100		10
Next Moisture Occurred On:	May-17-2013	Jun-13-2013	Jun-26-2013

Crop Stage At Each Application

	A		B		C	
Crop 1 Code, BBCH Scale:	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Stage Scale Used:			BBCH		BBCH	
Stage Majority, Percent:			12	100	14	100
Stage Minimum, Percent:			12	100		
Stage Maximum, Percent:			12	100		
Height, Unit:			7	in	8	IN
Height Minimum, Maximum:			7	8	8	9

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Pest Stage At Each Application

	A		B		C	
Pest 1 Code, Type, Scale:	AMBTR	W	AMBTR	W	AMBTR	W
Stage Majority, Percent:			19	100	19	100
Stage Minimum, Percent:			19	100		
Stage Maximum, Percent:			19	100		
Height, Unit:			10	in	18	IN
Height Minimum, Maximum:			8	12	11	18
Density, Unit:			12	M2		
Pest 2 Code, Type, Scale:	SETFA	W	SETFA	W	SETFA	W
Stage Majority, Percent:			12	100		
Stage Minimum, Percent:			12	100		
Stage Maximum, Percent:			12	100		
Height, Unit:			10	in	10	IN
Height Minimum, Maximum:			9	11	10	10
Density, Unit:			504	M2		
Pest 3 Code, Type, Scale:	APCCA	W	APCCA	W	APCCA	W
Stage Majority, Percent:			19	100		
Stage Minimum, Percent:			19	100		
Stage Maximum, Percent:			19	100		
Height, Unit:			20	in		
Height Minimum, Maximum:			7	29		
Pest 4 Code, Type, Scale:	CHEAL	W	CHEAL	W	CHEAL	W
Stage Majority, Percent:			19	100	19	100
Stage Minimum, Percent:			19	100		
Stage Maximum, Percent:			19	100		
Height, Unit:			6	in	4	IN
Height Minimum, Maximum:			5	7	4	10
Density, Unit:			24	M2		
Pest 5 Code, Type, Scale:	ECHCG	W	ECHCG	W	ECHCG	W
Height, Unit:					10	IN
Height Minimum, Maximum:					10	11

Application Equipment

	A		B		C	
Appl. Equipment:	Backpack		Backpack		Backpack	
Equipment Type:	SPRBAC		SPRBAC		SPRBAC	
Operation Pressure, Unit:	48	PSI	48	PSI	48	PSI
Nozzle Type:	AIXR		AIXR		AIXR	
Nozzle Size:	110015		110015		110015	
Nozzle Spacing, Unit:	18	IN	18	IN	18	IN
Boom Length, Unit:	6	FT	6	FT	6	FT
Boom Height, Unit:	18	IN	18	IN	18	IN
Ground Speed, Unit:	3	MPH	3	MPH	3	MPH
Carrier:	WATER		WATER		WATER	
Spray Volume, Unit:	15	gal/ac	15	gal/ac	15	gal/ac
Mix Size, Unit:	1	Liters	1	Liters	1	Liters
Propellant:	COMCO2		COMCO2		COMCO2	

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Pest Code	SETFA	ECHCG	AMBTR	AMARE	CHEAL	GLXMA	GLXMA						
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-9-2013	Jul-31-2013						
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYSTU	PHYSTU						
Rating Unit	%	%	%	%	%	%	%						
Days After First/Last Applic.	54 20	54 20	54 20	54 20	54 20	54 20	76 42						
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1	77 DP-1						
Days After Emergence	47 DE-1	47 DE-1	47 DE-1	47 DE-1	47 DE-1	47 DE-1	69 DE-1						
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Stage	Appl Code	1	2	3	4	5	6	7
1	UTC						100	100	100	100	100	0	0
2	Roundup Power Max	32 fl oz/a		28	DAPL B		97	85	79	93	99	0	0
2	N-pak ams	2.25 qt/a		28	DAPL B								
2	Roundup Power Max	32 fl oz/a		42	DAPL C								
2	N-pak ams	2.25 qt/a		42	DAPL C								
3	Valor SX	2 oz/a			A		99	92	92	100	100	2	0
3	Roundup Power Max	32 fl oz/a		42	DAPL C								
3	N-pak ams	2.25 qt/a		42	DAPL C								
4	Valor XLT @ 3oz						99	91	91	100	100	1	0
4	Valor SX	1.76 oz/a			A								
4	Classic	1.24 oz/a			A								
4	Roundup Power Max	32 fl oz/a		42	DAPL C								
4	N-pak ams	2.25 qt/a		42	DAPL C								
5	Fierce	3 oz/a			A		100	95	91	100	100	3	1
5	Roundup Power Max	32 fl oz/a		42	DAPL C								
5	N-pak ams	2.25 qt/a		42	DAPL C								
6	Fierce	3.75 oz/a			A		100	91	91	100	100	3	1
6	Roundup Power Max	32 fl oz/a		42	DAPL C								
6	N-pak ams	2.25 qt/a		42	DAPL C								
7	Authority Assist	5 oz/a			A		98	84	86	100	100	1	0
7	Roundup Power Max	32 fl oz/a		42	DAPL C								
7	N-pak ams	2.25 qt/a		42	DAPL C								
8	Prefix	1 qt/a			A		100	98	85	100	99	0	0
8	Roundup Power Max	32 fl oz/a		42	DAPL C								
8	N-pak ams	2.25 qt/a		42	DAPL C								
LSD (P=.05)							6.6t	11.0t	10.7	6.8	7.6t	0.4t	3.9t
Standard Deviation							5.6t	9.3t	9.1	5.8	6.5t	0.4t	3.3t
CV							6.45	12.35	10.2	5.82	7.33	28.6	131.99
Bartlett's X2							0.131	5.869	2.789	0.0	2.008	5.289	2.138
P(Bartlett's X2)							0.988	0.438	0.835	.	0.156	0.507	0.907
Skewness							-1.4614*	0.062	-0.5193	-6.9282*	-5.022*	0.3253	0.8066*
Kurtosis							0.3308	-1.0308	-1.1145	48.0*	27.0042*	-1.2651	-0.9302
Replicate F							2.667	1.116	1.166	1.000	0.722	1.862	0.224
Replicate Prob(F)							0.0382	0.3699	0.3451	0.4321	0.6116	0.1262	0.9497
Treatment F							3.372	4.287	2.690	1.000	1.074	9.122	1.927
Treatment Prob(F)							0.0074	0.0016	0.0244	0.4478	0.4003	0.0001	0.0946

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

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Pest Code		SETFA	ECHCG	AMBTR	AMARE	CHEAL					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Rating Date		Jul-31-2013	Jul-31-2013	Jul-31-2013	Jul-31-2013	Jul-31-2013					
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit		%	%	%	%	%					
Days After First/Last Applic.		76 42	76 42	76 42	76 42	76 42					
Plant-Eval Interval		77 DP-1	77 DP-1	77 DP-1	77 DP-1	77 DP-1					
Days After Emergence		69 DE-1	69 DE-1	69 DE-1	69 DE-1	69 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	8	9	10	11	12
1	UTC						100	100	100	100	100
2	Roundup Power Max	32 fl oz/a		28 DAPL	B		99	97	97	100	99
	2 N-pak ams	2.25 qt/a		28 DAPL	B						
2	Roundup Power Max	32 fl oz/a		42 DAPL	C						
	2 N-pak ams	2.25 qt/a		42 DAPL	C						
3	Valor SX	2 oz/a			A		100	97	100	100	100
3	Roundup Power Max	32 fl oz/a		42 DAPL	C						
	3 N-pak ams	2.25 qt/a		42 DAPL	C						
4	Valor XLT @ 3oz						100	98	100	100	100
4	Valor SX	1.76 oz/a			A						
4	Classic	1.24 oz/a			A						
4	Roundup Power Max	32 fl oz/a		42 DAPL	C						
	4 N-pak ams	2.25 qt/a		42 DAPL	C						
5	Fierce	3 oz/a			A		100	98	99	100	100
5	Roundup Power Max	32 fl oz/a		42 DAPL	C						
	5 N-pak ams	2.25 qt/a		42 DAPL	C						
6	Fierce	3.75 oz/a			A		100	100	98	100	100
6	Roundup Power Max	32 fl oz/a		42 DAPL	C						
	6 N-pak ams	2.25 qt/a		42 DAPL	C						
7	Authority Assist	5 oz/a			A		99	97	100	100	100
7	Roundup Power Max	32 fl oz/a		42 DAPL	C						
	7 N-pak ams	2.25 qt/a		42 DAPL	C						
8	Prefix	1 qt/a			A		100	99	99	100	99
8	Roundup Power Max	32 fl oz/a		42 DAPL	C						
	8 N-pak ams	2.25 qt/a		42 DAPL	C						
LSD (P=.05)							4.5t	9.1t	9.9t	0.0	1.2
Standard Deviation							3.8t	7.7t	8.4t	0.0	1.0
CV							4.37	9.32	9.85	0.0	1.04
Bartlett's X2							4.255	2.292	5.804	0.0	0.0
P(Bartlett's X2)							0.235	0.891	0.445	.	.
Skewness							-2.143*	-0.5778	-1.2303*	.	-4.7366*
Kurtosis							3.6932*	-1.2505	-0.0449	.	21.3233*
Replicate F							2.003	0.997	0.249	0.000	0.778
Replicate Prob(F)							0.1024	0.4338	0.9376	1.0000	0.5724
Treatment F							2.982	1.491	0.995	0.000	0.833
Treatment Prob(F)							0.0146	0.2028	0.4514	1.0000	0.5671

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Pest Code

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

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

CONTRO = control / burndown or knockdown
PHYSTU = phytotoxicity - stunting

Rating Unit

% = percent

Plant-Eval Interval

55 DP-1 = 1 GLXMA May-15-2013
77 DP-1 = 1 GLXMA May-15-2013