Ohio State University
Horticulture and Crop Science

Loveland products vs competitve programs in soybeans, Sonic pre followed by Durango DMA post and Durango DMA + Firstrate early post followed by Durango DMA late post

Title No. 2:

Trial ID: 11SOYYLD3 Protocol ID: 11SOYYLD3
Location: Western Branch BIG E Study Director: Bryan Reeb
Project ID: 11SOYYLD3 Investigator: Dr. Mark M. Loux
Sponsor Contact: Philip L., Loveland; Marvin S., Dow

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 °:** 39.86013 N USA 49.376656 - 24.53833
State/Prov.: Ohio **Longitude of LL Corner °:** -83.67026 W -124.715843 - -66.968887
Postal Code: 45368
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow AG 3631 **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:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

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

Pest 4 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 5 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: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

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:	Jun-7-2011	Jul-7-2011	Jul-21-2011
Time of Day:	10:15 A.M	10:00 A.M	11:00 A.M
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	MPO	
Application Placement:	BROFOL	BROFOL	BROFOL
Air Temperature, Unit:	83.8 F	87 F	90 F
% Relative Humidity:		87	69
Wind Velocity, Unit:	10 MPH	1.1 MPH	6 MPH
Wind Direction:	wsw	W	W
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	74 F	77 F	79 F
Soil Moisture:	DRY	MOIST	MOIST
% Cloud Cover:	0	20	15
Next Rain Occurred On:	Jun-7-2011	Jul-8-2011	Jul-23-2011

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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:		14 100	17 100
Height, Unit:		10 IN	20 IN
Height Minimum, Maximum:		8 10	20 20

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		15 100	
Height, Unit:		10 IN	
Height Minimum, Maximum:		8 10	
Density, Unit:	197.33 M2	197.33 M2	197.33 M2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:		16 100	18 100
Height, Unit:		12 IN	15 IN
Height Minimum, Maximum:		10 12	15 15
Density, Unit:	18.66 M2	18.66 M2	18.66 M2
Pest 3 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:		13 100	16 100
Height, Unit:		5 IN	4 IN
Height Minimum, Maximum:		3 5	4 4
Density, Unit:	1.33 M2	1.33 M2	1.33 M2
Pest 4 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Stage Majority, Percent:			13 100
Height, Unit:			4 IN
Height Minimum, Maximum:			4 4
Density, Unit:	2.66 M2	2.66 M2	2.66 M2
Pest 5 Code, Type, Scale:	SIDSP W	SIDSP W	SIDSP W
Stage Minimum, Percent:			14
Stage Maximum, Percent:			15
Height, Unit:			3 IN
Height Minimum, Maximum:			2 3
Density, Unit:	2.66 M2	2.66 M2	2.66 M2

Application Equipment

	A	B	C
Appl. Equipment:	Backpack	Backpack	Backpack
Equipment Type:	SPRBAC	SPRBAC	SPRBAC
Operation Pressure, Unit:	46 PSI	46 PSI	46 PSI
Nozzle Type:	DG	DG	DG
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	18 IN	18 IN	18 IN
Boom Length, Unit:	10 FT	10 FT	10 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:	0.5 gallons	0.5 gallons	0.5 gallons
Propellant:	COMCO2	COMCO2	COMCO2

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Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	14	15	16
	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
	Rating Timing								
	Days After First/Last Applic.						126 82	126 82	126 82
	Trt-Eval Interval								
	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	Matador	1.17	lb ai/a	2	pt/a	A	16.3 a	10.6 a	65.4 a
1	Makaze Yield Pro	1	lb ae/a	32	oz/a	B			
1	Weather Gaurd Complete	0.5	% v/v	2	qt/100 gal	B			
2	Matador	2.35	lb ai/a	4	pt/a	A	15.5 a	10.1 a	62.3 a
2	Makaze Yield Pro	1	lb ae/a	32	oz/a	B			
2	Weather Gaurd Complete	0.5	% v/v	2	qt/100 gal	B			
3	Authority MTZ	0.42	lb ai/a	15	oz/a	A	15.9 a	10.7 a	63.6 a
3	Roundup Power Max	0.77	lb ae/a	22	oz/a	B			
3	Weather Gaurd Complete	0.5	% v/v	2	qt/100 gal	B			
4	Prefix	1.32	lb ai/a	2	pt/a	A	16.8 a	10.7 a	67.3 a
4	Roundup Power Max	0.77	lb ae/a	22	oz/a	B			
4	Weather Gaurd Complete	0.5	% v/v	2	qt/100 gal	B			
5	Valor SX	0.096	lb ai/a	3	oz/a	A	16.1 a	10.2 a	64.6 a
5	Roundup Power Max	0.77	lb ae/a	22	oz/a	B			
5	Weather Gaurd Complete	0.5	% v/v	2	qt/100 gal	B			
6	Sonic	0.131	lb ai/a	3	oz/a	A	16.5 a	10.1 a	66.2 a
6	Durango DMA	0.75	lb ae/a	24	oz/a	B			
6	N-pak ams	2.5	% v/v	1.5	qt/a	B			
7	Sonic	0.197	lb ai/a	4.5	oz/a	A	16.4 a	10.0 a	66.2 a
7	Durango DMA	0.75	lb ae/a	24	oz/a	B			
7	N-pak ams	2.5	% v/v	1.5	qt/a	B			
8	Durango DMA	0.75	lb ae/a	24	oz/a	B	16.1 a	10.3 a	64.8 a
8	Firstrate	0.0158	lb ai/a	0.3	oz/a	B			
8	N-pak ams	2.5	% v/v	1.5	qt/a	B			
8	Durango DMA	0.75	lb ae/a	24	oz/a	C			
8	N-pak ams	2.5	% v/v	1.5	qt/a	C			
	LSD (P=.05)						2.69	0.56	10.74
	Standard Deviation						1.54	0.32	6.13
	CV						9.49	3.11	9.43
	Bartlett's X2						6.004	6.43	6.146
	P(Bartlett's X2)						0.539	0.491	0.523

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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ARM Action Codes												TY1
Number of Decimals										1	1	1
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code				14	15	16
Replicate F										4.422	17.352	3.883
Replicate Prob(F)										0.0325	0.0002	0.0456
Treatment F										0.218	2.158	0.206
Treatment Prob(F)										0.9749	0.1045	0.9785

Crop Code
GLXMA, BSOY, Glycine max, = US
Rating Type
YIELD = yield
Rating Unit
LB = pound
% = percent
BU = bushel
Plant-Eval Interval
127 DP-1 = 1 Jun-6-2011
ARM Action Codes
TY1 = 3.872*[14]*(100-[15])/86.5

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