

# The Ohio State University

## Weed Control with Matador S and Intimidator

Trial ID: 13Matador      Location:      Trial Year: 2013  
 Protocol ID: 13Matador      Investigator: Dr. Mark M. Loux  
 Project ID: OSU 2013      Study Director: Anthony F. Dobbels  
 Sponsor Contact: Phil Lodgsdon, Loveland products

### Crop Description

**Crop 1:** GLXMA Glycine max  
**Variety:** ASGROW AG3533  
**Description:** RR2

Soybean

**BBCH Scale:** BSOY

**Planting Rate, Unit:** 135000 S/A  
**Depth, Unit:** 0.5 IN  
**Row Spacing, Unit:** 15 IN  
**Soil Temperature, Unit:** 54 F  
**Soil Moisture:** SLIWET slightly wet, moist  
**Seed Bed:** MEDTRA medium/trashy

**Planting Date:** Apr-27-2013  
**Planting Method:** PLANTD planted  
**Planting Equipment:** PP Plot Planter  
**Emergence Date:** May-17-2013

### Pest Description

**Pest 1 Type:** W **Code:** AMBEL Ambrosia artemisiifolia  
**Common Name:** Common ragweed

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

**Pest 3 Type:** W **Code:** AMBTR Ambrosia trifida  
**Common Name:** Giant ragweed

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

**Pest 5 Type:** W **Code:** POLPY Persicaria pensylvanica  
**Common Name:** Pennsylvania smartweed

### Site and Design

**Treated Plot Width:** 6.67 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 200.1 FT2 **Treatments:** 6  
**Replications:** 3

**Site Type:** FIELD field  
**Experimental Unit:** 1 PLOT plot  
**Tillage Type:** NOTILL no-till  
**Study Design:** RACOB L Randomized Complete Block (RCB)

### Maintenance

No.	Date	Maintenance Product Name	Form Conc	Form Type	Form Rate	Tank		
						Unit	Mix Code	Mix
1.	Apr-18-2013	Roundup Powermax			32	OZ/A	Y	yes
2.	Apr-18-2013	2,4-D Ester	4	SC	1	PT/A	Y	yes

**Comment:** Weather conditions 4-18-13. 63 F, 81% RH, Wind 6 mph south, 10% clouds, soil wet, 58 F.

### Field Prep./Maintenance:

Weeds present, chickweed, deadnettle,

### Soil Description

**Description Name:** F-9 West  
**% OM:** 2      **Texture:** SICL silty clay loam  
**pH:** 6.2      **Soil Name:** Kokomo  
**CEC:** 9.7      **Fert. Level:** G good  
**Soil Drainage:** G good

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## Application Description

	A	B
Application Date:	Apr-27-2013	Jun-7-2013
Appl. Start Time:	12:30 PM	1:30 PM
Appl. Stop Time:	1:00 PM	1:45 PM
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Application Placement:	BROSOI	BROFOL
Applied By:	Dobbels	DOBBELS
Air Temperature, Unit:	65 F	67 F
% Relative Humidity:	42	77
Wind Velocity, Unit:	6.5 MPH	1.5 MPH
Wind Direction:	E	NNW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	54 F	64 F
Soil Moisture:	SLIWET	MOIST
% Cloud Cover:	50	50
Next Moisture Occurred On:	Apr-28-2013	Jun-9-2013
Time to Next Moisture, Unit:	1 DAY	2 DAY

## Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH
Stage Majority, Percent:		12 50
Stage Minimum, Percent:		12 50
Stage Maximum, Percent:		13 50
Height, Unit:		5 IN
Height Minimum, Maximum:		5 6

## Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMBEL W	AMBEL W
Stage Majority, Percent:		19 100
Stage Minimum, Percent:		19 100
Stage Maximum, Percent:		19 100
Height, Unit:		10 IN
Height Minimum, Maximum:		10 10
Pest 2 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:		14 100
Stage Minimum, Percent:		14 100
Stage Maximum, Percent:		14 100
Height, Unit:		6 IN
Height Minimum, Maximum:		6 8
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:		18 100
Stage Minimum, Percent:		18 100
Stage Maximum, Percent:		18 100
Height, Unit:		5 IN
Height Minimum, Maximum:		5 6
Pest 4 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:		19 100
Stage Minimum, Percent:		19 100
Stage Maximum, Percent:		19 100
Height, Unit:		4 IN
Height Minimum, Maximum:		4 5
Pest 5 Code, Type, Scale:	POLPY W	POLPY W
Stage Majority, Percent:		18 50
Stage Minimum, Percent:		18 50
Stage Maximum, Percent:		19 50
Height, Unit:		3 IN
Height Minimum, Maximum:		3 5

## Application Equipment

	A	B
Appl. Equipment:	6 foot boom	
Equipment Type:	SPRBAC	
Operation Pressure, Unit:	46 PSI	
Nozzle Type:	AI XR	
Nozzle Size:	110015	
Nozzle Spacing, Unit:	18 IN	
Boom Length, Unit:	6 FT	
Boom Height, Unit:	20 IN	
Ground Speed, Unit:	3 MPH	
Carrier:	WATER	
Spray Volume, Unit:	15 GPA	
Mix Size, Unit:	1 Liters	
Propellant:	CO2	

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Pest Code		GLXMA	SETFA	AMBTR	AMBEL	POLPY	CHEAL					
Crop Code		May-20-2013	May-20-2013	May-20-201	May-20-2013	May-20-2013	May-20-201					
Rating Date				3			3					
Rating Type		PHYCHL	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit		%	%	%	%	%	%					
Days After First/Last Applic.		23 23	23 23	23 23	23 23	23 23	23 23					
Trt-Eval Interval		23 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A	23 DA-A					
Plant-Eval Interval		23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1					
Days After Emergence		3 DE-1	3 DE-1	3 DE-1	3 DE-1	3 DE-1	3 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	1	2	3	4	5	6
1	Intimidator	3 pt/a		PRE	A		0 a	72 a	58 a	72 a	81 a	80 a
1	Makaze	32 oz/a		POST	B							
1	Weather Gard Complete	9.6 oz/a		POST	B							
2	Intimidator	2 pt/a		PRE	A		0 a	60 a	37 a	35 a	31 a	32 b
2	Makaze	32 oz/a		POST	B							
2	Weather Gard Complete	9.6 oz/a		POST	B							
3	Matador S	3 pt/a		PRE	A		3 a	82 a	72 a	82 a	95 a	100 a
3	Makaze	32 oz/a		POST	B							
3	Weather Gard Complete	9.6 oz/a		POST	B							
4	Matador S	2 pt/a		PRE	A		3 a	80 a	70 a	98 a	100 a	100 a
4	Makaze	32 oz/a		POST	B							
4	Weather Gard Complete	9.6 oz/a		POST	B							
5	Matador S	2 pt/a		PRE	A		0 a	73 a	72 a	98 a	98 a	100 a
5	Sencor 75DF	5 oz/a		PRE	A							
5	Makaze	32 oz/a		POST	B							
5	Weather Gard Complete	9.6 oz/a		POST	B							
6	Boundary	2 pt/a		PRE	A		1 a	60 a	57 a	57 a	81 a	100 a
6	Makaze	32 oz/a		POST	B							
6	Weather Gard Complete	9.6 oz/a		POST	B							
LSD (P=.05)							3.1	16.4	24.2	38.2t	41.1t	29.8
Standard Deviation							1.7	9.0	13.3	21.0t	22.6t	16.1
CV							160.09	12.69	21.9	34.01	32.98	18.92
Bartlett's X2							0.314	8.964	2.942	8.32	1.029	0.766
P(Bartlett's X2)							0.855	0.062	0.709	0.139	0.905	0.382
Skewness							1.3979*	-0.5486	-1.0305	-0.8125	-1.0785*	-2.7037*
Kurtosis							0.4453	-0.9501	1.0913	1.0212	1.2652	7.7954*
Replicate F							0.486	1.143	6.502	0.937	0.042	0.532
Replicate Prob(F)							0.6287	0.3571	0.0155	0.4237	0.9586	0.6049
Treatment F							1.794	3.263	3.131	2.165	2.319	8.591
Treatment Prob(F)							0.2018	0.0526	0.0587	0.1398	0.1207	0.0031

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Missing data estimates are included in columns: Yates=6,11; Average=12

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Pest Code	GLXMA		SETFA	AMBTR	AMBEL	POLPY	CHEAL	GLXMA					
Crop Code	Jun-6-2013		Jun-6-2013	Jun-6-201	Jun-6-2013	Jun-6-2013	Jun-6-201	Jun-25-2013					
Rating Date				<sup>3</sup>			<sup>3</sup>						
Rating Type	PHYCHL		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN					
Rating Unit	%		%	%	%	%	%	%					
Days After First/Last Applic.	40	40	40	40	40	40	40	40	59	18			
Trt-Eval Interval	40 DA-A		40 DA-A	40 DA-A	40 DA-A	40 DA-A	40 DA-A	18 DA-B					
Plant-Eval Interval	40 DP-1		40 DP-1	40 DP-1	40 DP-1	40 DP-1	40 DP-1	59 DP-1					
Days After Emergence	20 DE-1		20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	39 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	7	8	9	10	11	12	13
1	Intimidator	3 pt/a		PRE	A		0 a	53 ab	53 a	57 a	47 a	43 a	0 a
1	Makaze	32 oz/a		POST	B								
1	Weather Gard Complete	9.6 oz/a		POST	B								
2	Intimidator	2 pt/a		PRE	A		1 a	10 c	30 a	50 a	30 a	55 a	0 a
2	Makaze	32 oz/a		POST	B								
2	Weather Gard Complete	9.6 oz/a		POST	B								
3	Matador S	3 pt/a		PRE	A		1 a	77 a	63 a	70 a	83 a	100 a	0 a
3	Makaze	32 oz/a		POST	B								
3	Weather Gard Complete	9.6 oz/a		POST	B								
4	Matador S	2 pt/a		PRE	A		0 a	77 a	63 a	83 a	100 a	95 a	0 a
4	Makaze	32 oz/a		POST	B								
4	Weather Gard Complete	9.6 oz/a		POST	B								
5	Matador S	2 pt/a		PRE	A		2 a	67 a	53 a	70 a	74 a	100 a	0 a
5	Sencor 75DF	5 oz/a		PRE	A								
5	Makaze	32 oz/a		POST	B								
5	Weather Gard Complete	9.6 oz/a		POST	B								
6	Boundary	2 pt/a		PRE	A		0 a	30 bc	30 a	57 a	37 a	80 a	0 a
6	Makaze	32 oz/a		POST	B								
6	Weather Gard Complete	9.6 oz/a		POST	B								
LSD (P=.05)							0.7t	23.9	26.5	38.4	55.0	69.8	0.0
Standard Deviation							0.4t	13.1	14.6	21.1	29.2	34.9	0.0
CV							200.21	25.13	29.8	32.75	47.3	44.26	0.0
Bartlett's X2							0.222	4.351	3.913	6.849	2.159	2.419	0.0
P(Bartlett's X2)							0.895	0.361	0.562	0.144	0.707	0.49	.
Skewness							1.5593*	-0.6775	-1.0254	-1.7195*	-0.6658	-1.5207*	.
Kurtosis							0.6916	-0.7959	0.4263	3.3621*	-0.5542	1.2706	.
Replicate F							0.427	0.419	7.880	1.733	0.741	0.555	0.000
Replicate Prob(F)							0.6636	0.6685	0.0088	0.2258	0.5065	0.6010	1.0000
Treatment F							1.046	12.826	3.309	1.007	2.772	1.470	0.000
Treatment Prob(F)							0.4427	0.0004	0.0507	0.4614	0.0965	0.3235	1.0000

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Pest Code	SETFA	AMBTR	AMBEL	POLPY	CHEAL					
Crop Code										
Rating Date	Jun-25-2013	Jun-25-2013	Jun-25-2013	Jun-25-2013	Jun-25-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Days After First/Last Applic.	59 18	59 18	59 18	59 18	59 18					
Trt-Eval Interval	18 DA-B	18 DA-B	18 DA-B	18 DA-B	18 DA-B					
Plant-Eval Interval	59 DP-1	59 DP-1	59 DP-1	59 DP-1	59 DP-1					
Days After Emergence	39 DE-1	39 DE-1	39 DE-1	39 DE-1	39 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate Unit	Growth Stage	Appl Code	14	15	16	17	18
1	Intimidator	3 pt/a		PRE	A	98 a	98 a	100 a	100 a	100 a
1	Makaze	32 oz/a		POST	B					
1	Weather Gard Complete	9.6 oz/a		POST	B					
2	Intimidator	2 pt/a		PRE	A	100 a	93 a	100 a	100 a	100 a
2	Makaze	32 oz/a		POST	B					
2	Weather Gard Complete	9.6 oz/a		POST	B					
3	Matador S	3 pt/a		PRE	A	98 a	90 a	100 a	100 a	100 a
3	Makaze	32 oz/a		POST	B					
3	Weather Gard Complete	9.6 oz/a		POST	B					
4	Matador S	2 pt/a		PRE	A	99 a	92 a	100 a	100 a	100 a
4	Makaze	32 oz/a		POST	B					
4	Weather Gard Complete	9.6 oz/a		POST	B					
5	Matador S	2 pt/a		PRE	A	98 a	93 a	100 a	100 a	100 a
5	Sencor 75DF	5 oz/a		PRE	A					
5	Makaze	32 oz/a		POST	B					
5	Weather Gard Complete	9.6 oz/a		POST	B					
6	Boundary	2 pt/a		PRE	A	98 a	98 a	100 a	100 a	100 a
6	Makaze	32 oz/a		POST	B					
6	Weather Gard Complete	9.6 oz/a		POST	B					
LSD (P=.05)						6.2t	13.7t	0.0	0.0	0.0
Standard Deviation						3.4t	7.5t	0.0	0.0	0.0
CV						4.13	9.9	0.0	0.0	0.0
Bartlett's X2						3.953	3.512	0.0	0.0	0.0
P(Bartlett's X2)						0.556	0.622	.	.	.
Skewness						0.3222	-0.1972	.	.	.
Kurtosis						1.2953	0.0528	.	.	.
Replicate F						0.712	0.063	0.000	0.000	0.000
Replicate Prob(F)						0.5139	0.9394	1.0000	1.0000	1.0000
Treatment F						0.896	0.899	0.000	0.000	0.000
Treatment Prob(F)						0.5191	0.5175	1.0000	1.0000	1.0000

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### Pest Code

SETFA, *Setaria faberi*, = US  
AMBTR, *Ambrosia trifida*, = US  
AMBEL, *Ambrosia artemisiifolia*, = US  
POLPY, *Persicaria pensylvanica*, = US  
CHEAL, *Chenopodium album*, = US

### Crop Code

GLXMA, BSOY, *Glycine max*, = US

### Rating Type

PHYCHL = phytotoxicity - chlorosis  
CONTRO = control / burndown or knockdown  
PHYGEN = phytotoxicity - general / injury

### Rating Unit

% = percent

### Plant-Eval Interval

23 DP-1 = 1 GLXMA Apr-27-2013  
40 DP-1 = 1 GLXMA Apr-27-2013  
59 DP-1 = 1 GLXMA Apr-27-2013