

# The Ohio State University

## DPX R5W13 applied preemergence in conventional till soybeans

Trial ID: 13 R5W13 PRE  
Protocol ID: 13 R5W13 PRE  
Project ID: US 114/13/01

Location: Western Branch Trial Year: 2013  
Investigator: Dr. Mark M. Loux  
Study Director: Bryan Reeb  
Sponsor Contact: Marsha Martin, Dupont

### Crop Description

**Crop 1:** GLXMA Glycine max Soybean  
**Variety:** Pioneer 93 Y 05 **BBCH Scale:** BSOY  
**Description:** Roundup Ready

**Planting Rate, Unit:** 150000 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:** 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

### Site and Design

**Treated Plot Width:** 6.67 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 200.1 FT2 **Treatments:** 8  
**Replications:** 3

**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  
**pH:** 5.7  
**CEC:** 16.2

**Texture:** SIL silt loam  
**Soil Name:** Crosby Silt Loam  
**Fert. Level:** G good  
**Soil Drainage:** G good

### Application Description

	A	B
<b>Application Date:</b>	May-16-2013	Jun-12-2013
<b>Appl. Start Time:</b>	8:30	8:30 AM
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>		POST
<b>Application Placement:</b>	BROSOI	BROFOL
<b>Air Temperature, Unit:</b>	67.8 F	75.1 F
<b>% Relative Humidity:</b>	78.4	82.2
<b>Wind Velocity, Unit:</b>	1.9 MPH	2.3 MPH
<b>Wind Direction:</b>	NNW	SSW
<b>Dew Presence (Y/N):</b>		N no
<b>Soil Temperature, Unit:</b>	62 F	68 F
<b>Soil Moisture:</b>	NORMAL	MOIST
<b>% Cloud Cover:</b>	100	
<b>Next Moisture Occurred On:</b>	May-17-2013	Jun-13-2013

### Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale:</b>	GLXMA BSOY	GLXMA BSOY
<b>Stage Scale Used:</b>		BBCH
<b>Stage Majority, Percent:</b>		12 100
<b>Stage Minimum, Percent:</b>		12 100
<b>Stage Maximum, Percent:</b>		12 100
<b>Height, Unit:</b>		7 in
<b>Height Minimum, Maximum:</b>		7 8

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### Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale:</b>	AMBTR W	AMBTR W
<b>Stage Majority, Percent:</b>	19	100
<b>Stage Minimum, Percent:</b>	19	100
<b>Stage Maximum, Percent:</b>	19	100
<b>Height, Unit:</b>	10	in
<b>Height Minimum, Maximum:</b>	8	12
<b>Density, Unit:</b>	32	M2
<b>Pest 2 Code, Type, Scale:</b>	SETFA W	SETFA W
<b>Stage Majority, Percent:</b>	12	100
<b>Stage Minimum, Percent:</b>	12	100
<b>Stage Maximum, Percent:</b>	12	100
<b>Height, Unit:</b>	10	in
<b>Height Minimum, Maximum:</b>	9	11
<b>Density, Unit:</b>	200	M2
<b>Pest 3 Code, Type, Scale:</b>	APCCA W	APCCA W
<b>Stage Majority, Percent:</b>	19	100
<b>Stage Minimum, Percent:</b>	19	100
<b>Stage Maximum, Percent:</b>	19	100
<b>Height, Unit:</b>	20	in
<b>Height Minimum, Maximum:</b>	7	29
<b>Pest 4 Code, Type, Scale:</b>	CHEAL W	CHEAL W
<b>Stage Majority, Percent:</b>	19	100
<b>Stage Minimum, Percent:</b>	19	100
<b>Stage Maximum, Percent:</b>	19	
<b>Height, Unit:</b>	6	in
<b>Height Minimum, Maximum:</b>	5	7
<b>Density, Unit:</b>	4	M2

### Application Equipment

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

Date	By	Notes
Jul-9-2013	Reeb	at time of this rating the ragweed has over taken plots that did not get a post application there fore those plots were given "0"

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Pest Code												
Crop Code		GLXMA	GLXMA	SETFA	AMBTR	AMARE	CHEAL	SETFA	AMBTR			
Rating Date		Jun-3-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jul-9-2013	Jul-9-2013		
Rating Type		PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit		%	%	%	%	%	%	%	%	%		
Days After First/Last Applic.		18 18	27 27	27 27	27 27	27 27	27 27	27 27	54 27	54 27		
Trt-Eval Interval		21 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-A	27 DA-B	27 DA-B		
Plant-Eval Interval		19 DP-1	28 DP-1	28 DP-1	28 DP-1	28 DP-1	28 DP-1	28 DP-1	55 DP-1	55 DP-1		
Days After Emergence		11 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	47 DE-1	47 DE-1		
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	1	2	3	4	5	6	7	8
1	Envive @ 3.5oz				26	11	37	40	98	87	0	0
	1 Classic	1.28 oz/a		A								
	1 Thifensulfuron	0.2 oz/a		A								
	1 Valor SX	2 oz/a		A								
2	Envive @ 3.5oz				17	8	43	27	100	97	98	75
	2 Classic	1.28 oz/a		A								
	2 Thifensulfuron	0.2 oz/a		A								
	2 Valor SX	2 oz/a		A								
	2 Abundit Extra	32 oz/a		B								
	2 N-pak ams	1.8 qt/a		B								
3	Canopy	4 oz/a		A	0	0	20	33	100	65	0	0
	3 Cinch	1 pt/a		A								
4	Canopy	4 oz/a		A	0	0	37	27	100	60	100	83
	4 Cinch	1 pt/a		A								
	4 Abundit Extra	32 oz/a		B								
	4 N-pak ams	1.8 qt/a		B								
5	DPX R5W13 @ 8oz				22	9	43	40	100	83	0	0
	5 Classic	1.25 oz/a		A								
	5 Sencor 75DF	4 oz/a		A								
	5 Valor SX	2 oz/a		A								
6	DPX R5W13 @ 8oz				17	9	37	37	98	80	98	78
	6 Classic	1.25 oz/a		A								
	6 Sencor 75DF	4 oz/a		A								
	6 Valor SX	2 oz/a		A								
	6 Abundit Extra	32 oz/a		B								
	6 N-pak ams	1.8 qt/a		B								
7	Boundary	1.5 pt/a		A	0	0	50	17	98	27	0	0
8	Boundary	1.5 pt/a		A	0	0	57	30	100	23	100	78
	8 Abundit Extra	32 oz/a		B								
	8 N-pak ams	1.8 qt/a		B								
LSD (P=.05)		4.7	2.4	15.3	23.6	0.2t	23.7	2.6	10.9			
Standard Deviation		2.7	1.4	8.7	13.5	0.1t	13.5	1.5	6.2			
CV		26.65	30.34	21.6	43.05	0.89	20.72	3.01	15.83			
Bartlett's X2		5.938	1.874	6.562	5.894	0.0	8.646	0.0	0.223			
P(Bartlett's X2)		0.115	0.599	0.476	0.435	1.00	0.279	.	0.894			
Skewness		0.3276	0.2361	-1.0403*	-1.0359*	-2.4219*	-0.8405	0.0022	0.0571			
Kurtosis		-1.7351	-1.829	2.57*	1.1126	4.2103*	-0.2866	-2.1872*	-2.0954*			
Replicate F		3.572	0.549	3.500	0.000	1.000	1.580	0.467	0.080			
Replicate Prob(F)		0.0558	0.5897	0.0585	1.0000	0.3927	0.2405	0.6365	0.9231			
Treatment F		51.664	38.317	4.680	1.049	0.714	12.355	3776.800	137.253			
Treatment Prob(F)		0.0001	0.0001	0.0069	0.4421	0.6619	0.0001	0.0001	0.0001			

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

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Pest Code	AMARE	CHEAL
Crop Code	GLXMA	GLXMA
Rating Date	Jul-9-2013	Jul-9-2013
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Days After First/Last Applic.	54 27	54 27
Trt-Eval Interval	27 DA-B	27 DA-B
Plant-Eval Interval	55 DP-1	55 DP-1
Days After Emergence	47 DE-1	47 DE-1

Trt No.	Treatment Name	Other Rate	Other Unit	Appl Code	9	10	11
1	Envive @ 3.5oz				0	0	
1	Classic	1.28 oz/a		A			
1	Thifensulfuron	0.2 oz/a		A			
1	Valor SX	2 oz/a		A			
2	Envive @ 3.5oz				100	100	
2	Classic	1.28 oz/a		A			
2	Thifensulfuron	0.2 oz/a		A			
2	Valor SX	2 oz/a		A			
2	Abundit Extra	32 oz/a		B			
2	N-pak ams	1.8 qt/a		B			
3	Canopy	4 oz/a		A	0	0	
3	Cinch	1 pt/a		A			
4	Canopy	4 oz/a		A	100	100	
4	Cinch	1 pt/a		A			
4	Abundit Extra	32 oz/a		B			
4	N-pak ams	1.8 qt/a		B			
5	DPX R5W13 @ 8oz				0	0	
5	Classic	1.25 oz/a		A			
5	Sencor 75DF	4 oz/a		A			
5	Valor SX	2 oz/a		A			
6	DPX R5W13 @ 8oz				100	100	
6	Classic	1.25 oz/a		A			
6	Sencor 75DF	4 oz/a		A			
6	Valor SX	2 oz/a		A			
6	Abundit Extra	32 oz/a		B			
6	N-pak ams	1.8 qt/a		B			
7	Boundary	1.5 pt/a		A	0	0	
8	Boundary	1.5 pt/a		A	100	100	
8	Abundit Extra	32 oz/a		B			
8	N-pak ams	1.8 qt/a		B			
LSD (P=.05)					0.0	0.0	.
Standard Deviation					0.0	0.0	.
CV					0.0	0.0	.
Bartlett's X2					0.0	0.0	.
P(Bartlett's X2)					.	.	.
Skewness					0.0	0.0	.
Kurtosis					-2.1905*	-2.1905*	.
Replicate F					0.000	0.000	
Replicate Prob(F)					1.0000	1.0000	
Treatment F					0.000	0.000	
Treatment Prob(F)					1.0000	1.0000	

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Pest Code

SETFA, *Setaria faberi*, = US  
AMBTR, *Ambrosia trifida*, = US  
AMARE, *Amaranthus retroflexus*, = US  
CHEAL, *Chenopodium album*, = US

Crop Code

GLXMA, BSOY, *Glycine max*, = US

Rating Type

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

Rating Unit

% = percent

Plant-Eval Interval

19 DP-1 = 1 GLXMA May-15-2013  
28 DP-1 = 1 GLXMA May-15-2013  
55 DP-1 = 1 GLXMA May-15-2013