

# The Ohio State University

## On farm marestail split residual application trial

Trial ID: 13 MMA      Location: Western Branch      Trial Year: 2013  
 Protocol ID: 13 MMA      Investigator: Dr. Mark M. Loux  
 Project ID: 13 MMA      Study Director: Bryan Reeb  
 Sponsor Contact: OSU

### Crop Description

**Crop 1:** GLXMA      Glycine max  
**Variety:** Asgrow 3533  
**Description:** Round Up Ready

**BBCH Scale:** BSOY

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

**Planting Rate, Unit:** 135000      S/A  
**Depth, Unit:** 0.75 IN  
**Row Spacing, Unit:** 15 IN  
**Soil Temperature, Unit:** 54 F  
**Soil Moisture:** SLIWET slightly wet, moist  
**Seed Bed:** FINTRA fine/trashy

### Pest Description

- Pest 1 Type:** W      **Code:** LAMPU Lamium purpureum  
**Common Name:** Purple deadnettel
- Pest 2 Type:** W      **Code:** STEME Stellaria media  
**Common Name:** Common chickweed
- Pest 3 Type:** W      **Code:** ERPSS Erophila sp.  
**Common Name:** Whitlowgrass
- Pest 4 Type:** W      **Code:** ERYRE Erysimum repandum  
**Common Name:** Bushy wallflower
- Pest 5 Type:** W      **Code:** CAPBP Capsella bursa-pastoris  
**Common Name:** Shepherd's purse
- Pest 6 Type:** W      **Code:** AMBTR Ambrosia trifida  
**Common Name:** Giant ragweed
- Pest 7 Type:** W      **Code:** ERICA Conyza canadensis  
**Common Name:** Canada horseweed
- Pest 8 Type:** W      **Code:** SETFA Setaria faberi  
**Common Name:** Giant foxtail
- Pest 9 Type:** W      **Code:** VERAR Veronica arvensis  
**Common Name:** Corn speedwell
- Pest10 Type:** W      **Code:** TAROF Taraxacum officinale  
**Common Name:** Common dandelion

### Site and Design

**Treated Plot Width:** 6.67 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 200.1 FT2      **Treatments:** 20  
**Replications:** 3

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

### 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	C	D
<b>Application Date:</b>	Apr-3-2013	Apr-22-2013	Apr-27-2013	May-29-2013
<b>Appl. Start Time:</b>	12:00 pm	1:30 PM	12:15 PM	8:00 PM
<b>Appl. Stop Time:</b>	12:30 PM	2:00 PM	12:50 PM	8:30 PM
<b>Application Method:</b>	SPRAY	SPRAY	SPRAY	SPRAY
<b>Application Timing:</b>	30 EPP	7 EPP	ATPL	POST
<b>Application Placement:</b>	BROSOI	BROSOI	BROSOI	BROFOL
<b>Applied By:</b>	Reeb	REEB	REEB	DOBBELS
<b>Air Temperature, Unit:</b>	41.1 F	62 F	65 F	79 F
<b>% Relative Humidity:</b>	29	49	42	51
<b>Wind Velocity, Unit:</b>	3.6 MPH	4 MPH	6.5 MPH	7 MPH
<b>Wind Direction:</b>	NW	E	E	SW
<b>Dew Presence (Y/N):</b>	N no	N no	N no	N no
<b>Soil Temperature, Unit:</b>	39 F	51 F	54 F	80 F
<b>Soil Moisture:</b>	GOOD	MOIST	SLIWET	DRY
<b>% Cloud Cover:</b>	10	0	50	33
<b>Next Moisture Occurred On:</b>	Apr-10-2013	Apr-24-2013	Apr-28-2013	Jun-1-2013

	Crop Stage At Each Application			
	A	B	C	D
<b>Crop 1 Code, BBCH Scale:</b>	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
<b>Stage Scale Used:</b>				BBCH
<b>Stage Majority, Percent:</b>				11 100
<b>Height, Unit:</b>				3 IN
<b>Height Minimum, Maximum:</b>				2 3

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### Pest Stage At Each Application

	A		B		C		D	
<b>Pest 1 Code, Type, Scale:</b>	LAMPU	W	LAMPU	W	LAMPU	W	LAMPU	W
<b>Stage Majority, Percent:</b>	19	100	65	100	65	100		
<b>Diameter, Unit:</b>	1.5	IN	3	IN	3	IN		
<b>Height, Unit:</b>	1.5	IN	2	IN	4.5	IN		
<b>Height Minimum, Maximum:</b>	0.5	1.5	1	3	3	5		
<b>Density, Unit:</b>	6.6	M2						
<b>Pest 2 Code, Type, Scale:</b>	STEME	W	STEME	W	STEME	W	STEME	W
<b>Stage Majority, Percent:</b>	19	100	65	100	65	100		
<b>Diameter, Unit:</b>	2.5	IN	7	IN	9	IN		
<b>Height, Unit:</b>	1	IN	1.5	IN	1.5	IN		
<b>Height Minimum, Maximum:</b>	0.5	1	1	2	1	2		
<b>Density, Unit:</b>	2.6	M2						
<b>Pest 3 Code, Type, Scale:</b>	ERPSS	W	ERPSS	W	ERPSS	W	ERPSS	W
<b>Stage Majority, Percent:</b>	65	100						
<b>Diameter, Unit:</b>	1	IN						
<b>Height, Unit:</b>	1	IN						
<b>Height Minimum, Maximum:</b>	0.5	1						
<b>Pest 4 Code, Type, Scale:</b>	ERYRE	W	ERYRE	W	ERYRE	W	ERYRE	W
<b>Stage Majority, Percent:</b>	19	100	65	100	65	100		
<b>Diameter, Unit:</b>	2.5	IN	4	IN	4	IN		
<b>Height, Unit:</b>	0.5	IN	13	IN	13	IN		
<b>Height Minimum, Maximum:</b>			12	13	10	13		
<b>Density, Unit:</b>	1.3	M2						
<b>Pest 5 Code, Type, Scale:</b>	CAPBP	W	CAPBP	W	CAPBP	W	CAPBP	W
<b>Stage Majority, Percent:</b>			65	100	65	100		
<b>Diameter, Unit:</b>			6	IN	6	IN		
<b>Height, Unit:</b>			12	IN	12	IN		
<b>Height Minimum, Maximum:</b>			10	12	10	13		
<b>Density, Unit:</b>	4	M2						
<b>Pest 6 Code, Type, Scale:</b>	AMBTR	W	AMBTR	W	AMBTR	W	AMBTR	W
<b>Stage Majority, Percent:</b>			10D	100	12	100	16	100
<b>Height, Unit:</b>			1	IN	2	IN	8	IN
<b>Height Minimum, Maximum:</b>			0.5	1	1	2	6	8
<b>Density, Unit:</b>	10.6	M2						
<b>Pest 7 Code, Type, Scale:</b>	ERICA	W	ERICA	W	ERICA	W	ERICA	W
<b>Stage Majority, Percent:</b>			19	100	19	100	19	100
<b>Diameter, Unit:</b>			2	IN	3	IN	5	IN
<b>Height, Unit:</b>			0.5	IN	2	IN	4	6
<b>Height Minimum, Maximum:</b>					1	2		
<b>Density, Unit:</b>	2.6	M2						
<b>Pest 8 Code, Type, Scale:</b>	SETFA	W	SETFA	W	SETFA	W	SETFA	W
<b>Stage Majority, Percent:</b>							14	100
<b>Height, Unit:</b>							4	IN
<b>Height Minimum, Maximum:</b>							3	5
<b>Density, Unit:</b>	139.6	M2						
<b>Pest 9 Code, Type, Scale:</b>	VERAR	W	VERAR	W	VERAR	W	VERAR	W
<b>Density, Unit:</b>	8	M2						
<b>Pest10 Code, Type, Scale:</b>	TAROF	W	TAROF	W	TAROF	W	TAROF	W
<b>Density, Unit:</b>	1.3	M2						

### Application Equipment

	A	B	C	D
<b>Appl. Equipment:</b>	Backpack	Backpack	Backpack	TRACTOR
<b>Equipment Type:</b>	SPRBAC	SPRBAC	SPRBAC	SPTRMO
<b>Operation Pressure, Unit:</b>	44 PSI	48 PSI	48 PSI	33 PSI
<b>Nozzle Type:</b>	AIXR	AIXR	AIXR	DG
<b>Nozzle Size:</b>	110015	110015	110015	11002
<b>Nozzle Spacing, Unit:</b>	18 IN	18 IN	18 IN	20 IN
<b>Boom Length, Unit:</b>	6 FT	6 FT	6 FT	6.67 FT
<b>Boom Height, Unit:</b>	18 IN	18 IN	18 IN	18 IN
<b>Ground Speed, Unit:</b>	3 MPH	3 MPH	3 MPH	6 MPH
<b>Carrier:</b>	WATER	WATER	WATER	WATER
<b>Spray Volume, Unit:</b>	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac
<b>Mix Size, Unit:</b>	1 Liters	1 Liters	1 Liters	10 gallons
<b>Propellant:</b>	COMCO2	COMCO2	COMCO2	PUMROL

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Pest Code	STEME	LAMPU	CAPBP	ERYRE	SETFA	AMBTR						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Rating Date	Apr-26-2013	Apr-26-2013	Apr-26-2013	Apr-26-2013	May-28-2013	May-28-2013						
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%	%	%	%						
Days After First/Last Applic.	23 4	23 4	23 4	23 4	55 31	55 31						
Plant-Eval Interval	-1 DP-1	-1 DP-1	-1 DP-1	-1 DP-1	31 DP-1	31 DP-1						
Days After Emergence	-21 DE-1	-21 DE-1	-21 DE-1	-21 DE-1	11 DE-1	11 DE-1						
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	1	2	3	4	5	6
1	Roundup Power Max	22 oz/a		30	EPP	A	99	93	100	100	67	40
	2,4-D	1 pt/a		30	EPP	A						
1	Valor XLT @ 4.5 oz											
1	Valor SX	2.35 oz/a		30	EPP	A						
1	Classic	1.65 oz/a		30	EPP	A						
1	N-pak ams	1.5 qt/a		30	EPP	A						
1	Roundup Power Max	22 oz/a			POST	D						
1	N-pak ams	1.5 qt/a			POST	D						
2	Roundup Power Max	22 oz/a		30	EPP	A	98	80	100	100	30	57
	2,4-D	1 pt/a		30	EPP	A						
2	Valor SX	2 oz/a		30	EPP	A						
2	N-pak ams	1.5 qt/a		30	EPP	A						
2	Roundup Power Max	22 oz/a			POST	D						
2	N-pak ams	1.5 qt/a			POST	D						
3	Roundup Power Max	22 oz/a		30	EPP	A	100	95	100	100	40	40
	3,4-D	1 pt/a		30	EPP	A						
3	Valor SX	3 oz/a		30	EPP	A						
3	N-pak ams	1.5 qt/a		30	EPP	A						
3	Roundup Power Max	22 oz/a			POST	D						
3	N-pak ams	1.5 qt/a			POST	D						
4	Roundup Power Max	22 oz/a		30	EPP	A	100	99	100	100	0	23
	4,4-D	1 pt/a		30	EPP	A						
4	Sencor 75DF	8 oz/a		30	EPP	A						
4	N-pak ams	1.5 qt/a		30	EPP	A						
4	Roundup Power Max	22 oz/a			POST	D						
4	N-pak ams	1.5 qt/a			POST	D						
5	Roundup Power Max	22 oz/a		30	EPP	A	99	100	100	100	0	37
	5,4-D	1 pt/a		30	EPP	A						
5	Sencor 75DF	12 oz/a		30	EPP	A						
5	N-pak ams	1.5 qt/a		30	EPP	A						
5	Roundup Power Max	22 oz/a			POST	D						
5	N-pak ams	1.5 qt/a			POST	D						
6	Roundup Power Max	22 oz/a		30	EPP	A	100	73	93	93	0	13
	6,4-D	1 pt/a		30	EPP	A						
6	Spartan	2.5 oz/a		30	EPP	A						
6	N-pak ams	1.5 qt/a		30	EPP	A						
6	Roundup Power Max	22 oz/a			POST	D						
6	N-pak ams	1.5 qt/a			POST	D						
7	Roundup Power Max	22 oz/a		30	EPP	A	100	83	100	100	43	43
	7,4-D	1 pt/a		30	EPP	A						
7	Spartan	5 oz/a		30	EPP	A						
7	N-pak ams	1.5 qt/a		30	EPP	A						
7	Roundup Power Max	22 oz/a			POST	D						
7	N-pak ams	1.5 qt/a			POST	D						

t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Missing data estimates are included in columns: Yates=2,3,4,6,9

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Pest Code	STEME	LAMPU	CAPBP	ERYRE	SETFA	AMBTR
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Date	Apr-26-2013	Apr-26-2013	Apr-26-2013	Apr-26-2013	May-28-2013	May-28-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Days After First/Last Applic.	23 4	23 4	23 4	23 4	55 31	55 31
Plant-Eval Interval	-1 DP-1	-1 DP-1	-1 DP-1	-1 DP-1	31 DP-1	31 DP-1
Days After Emergence	-21 DE-1	-21 DE-1	-21 DE-1	-21 DE-1	11 DE-1	11 DE-1

Trt No.	Treatment Name	Other Rate	Other Unit	Growth Stage	Appl Code	1	2	3	4	5	6
8	Roundup Power Max 2,4-D	22 oz/a	1 pt/a	7 EPP	B	43	43	40	40	73	84
8	Valor XLT @ 4.5 oz			7 EPP	B						
8	Valor SX	2.35 oz/a		7 EPP	B						
8	Classic	1.65 oz/a		7 EPP	B						
8	N-pak ams	1.5 qt/a		7 EPP	B						
8	Roundup Power Max	22 oz/a		POST	D						
8	N-pak ams	1.5 qt/a		POST	D						
9	Roundup Power Max 2,4-D	22 oz/a	1 pt/a	7 EPP	B	51	57	41	41	57	50
9	Valor SX	2 oz/a		7 EPP	B						
9	N-pak ams	1.5 qt/a		7 EPP	B						
9	Roundup Power Max	22 oz/a		POST	D						
9	N-pak ams	1.5 qt/a		POST	D						
10	Roundup Power Max 2,4-D	22 oz/a	1 pt/a	7 EPP	B	53	53	43	43	63	42
10	Valor SX	3 oz/a		7 EPP	B						
10	N-pak ams	1.5 qt/a		7 EPP	B						
10	Roundup Power Max	22 oz/a		POST	D						
10	N-pak ams	1.5 qt/a		POST	D						
11	Roundup Power Max 2,4-D	22 oz/a	1 pt/a	7 EPP	B	10	20	17	17	13	70
11	Sencor 75DF	8 oz/a		7 EPP	B						
11	N-pak ams	1.5 qt/a		7 EPP	B						
11	Roundup Power Max	22 oz/a		POST	D						
11	N-pak ams	1.5 qt/a		POST	D						
12	Roundup Power Max 2,4-D	22 oz/a	1 pt/a	7 EPP	B	13	26	20	20	20	70
12	Sencor 75DF	12 oz/a		7 EPP	B						
12	N-pak ams	1.5 qt/a		7 EPP	B						
12	Roundup Power Max	22 oz/a		POST	D						
12	N-pak ams	1.5 qt/a		POST	D						
13	Roundup Power Max 2,4-D	22 oz/a	1 pt/a	7 EPP	B	43	41	25	25	27	63
13	Spartan	2.5 oz/a		7 EPP	B						
13	N-pak ams	1.5 qt/a		7 EPP	B						
13	Roundup Power Max	22 oz/a		POST	D						
13	N-pak ams	1.5 qt/a		POST	D						
14	Roundup Power Max 2,4-D	22 oz/a	1 pt/a	7 EPP	B	30	31	25	25	47	57
14	Spartan	5 oz/a		7 EPP	B						
14	N-pak ams	1.5 qt/a		7 EPP	B						
14	Roundup Power Max	22 oz/a		POST	D						
14	N-pak ams	1.5 qt/a		POST	D						

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Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Rating Date	Apr-26-2013	Apr-26-2013	Apr-26-2013	Apr-26-2013	May-28-2013	May-28-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%	%					
Days After First/Last Applic.	23 4	23 4	23 4	23 4	55 31	55 31					
Plant-Eval Interval	-1 DP-1	-1 DP-1	-1 DP-1	-1 DP-1	31 DP-1	31 DP-1					
Days After Emergence	-21 DE-1	-21 DE-1	-21 DE-1	-21 DE-1	11 DE-1	11 DE-1					
Trt Treatment No. Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	1	2	3	4	5	6
15 Roundup Power Max	22 oz/a		30	EPP	A	100	98	100	100	68	69
15 2,4-D	1 pt/a		30	EPP	A						
15 Valor XLT @ 2oz											
15 Valor SX	1.17 oz/a		30	EPP	A						
15 Classic	0.83 oz/a		30	EPP	A						
15 N-pak ams	1.5 qt/a		30	EPP	A						
15 Liberty	22 oz/a		ATPL		C						
15 Valor XLT @ 2oz											
15 Valor SX	1.17 oz/a		ATPL		C						
15 Classic	0.83 oz/a		ATPL		C						
15 N-pak ams	1.5 qt/a		ATPL		C						
15 Roundup Power Max	22 oz/a		POST		D						
15 N-pak ams	1.5 qt/a		POST		D						
16 Roundup Power Max	22 oz/a		30	EPP	A	99	87	93	93	47	72
16 2,4-D	1 pt/a		30	EPP	A						
16 Valor SX	1 oz/a		30	EPP	A						
16 N-pak ams	1.5 qt/a		30	EPP	A						
16 Liberty	22 oz/a		ATPL		C						
16 Valor SX	1.5 oz/a		ATPL		C						
16 N-pak ams	1.5 qt/a		ATPL		C						
16 Roundup Power Max	22 oz/a		POST		D						
16 N-pak ams	1.5 qt/a		POST		D						
17 Roundup Power Max	22 oz/a		30	EPP	A	79	57	55	55	13	80
17 2,4-D	1 pt/a		30	EPP	A						
17 Sencor 75DF	4 oz/a		30	EPP	A						
17 N-pak ams	1.5 qt/a		30	EPP	A						
17 Liberty	22 oz/a		ATPL		C						
17 Sencor 75DF	6 oz/a		ATPL		C						
17 N-pak ams	1.5 qt/a		ATPL		C						
17 Roundup Power Max	22 oz/a		POST		D						
17 N-pak ams	1.5 qt/a		POST		D						
18 Roundup Power Max	22 oz/a		30	EPP	A	100	81	93	93	20	30
18 2,4-D	1 pt/a		30	EPP	A						
18 Spartan	1.5 oz/a		30	EPP	A						
18 N-pak ams	1.5 qt/a		30	EPP	A						
18 Liberty	22 oz/a		ATPL		C						
18 Spartan	2 oz/a		ATPL		C						
18 N-pak ams	1.5 qt/a		ATPL		C						
18 Roundup Power Max	22 oz/a		POST		D						
18 N-pak ams	1.5 qt/a		POST		D						
19 Liberty	22 oz/a		ATPL		C	0	0	0	0	75	96
19 Sencor 75DF	4 oz/a		ATPL		C						
19 Valor XLT @ 4oz					C						
19 Valor SX	2.35 oz/a		ATPL		C						
19 Classic	1.65 oz/a		ATPL		C						
19 N-pak ams	1.5 qt/a		ATPL		C						
19 Roundup Power Max	22 oz/a		POST		D						
19 N-pak ams	1.5 qt/a		POST		D						

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Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
Rating Date	Apr-26-2013	Apr-26-2013	Apr-26-2013	Apr-26-2013	May-28-2013	May-28-2013				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Days After First/Last Applic.	23 4	23 4	23 4	23 4	55 31	55 31				
Plant-Eval Interval	-1 DP-1	-1 DP-1	-1 DP-1	-1 DP-1	31 DP-1	31 DP-1				
Days After Emergence	-21 DE-1	-21 DE-1	-21 DE-1	-21 DE-1	11 DE-1	11 DE-1				
Trt Treatment	Other Rate	Other Rate	Growth Unit	Appl Stage	1	2	3	4	5	6
20 Roundup Power Max	22 oz/a		7 EPP	B	9	20	17	17	23	67
20 2,4-D	1 pt/a		7 EPP	B						
20 N-pak ams	1.5 qt/a		7 EPP	B						
20 Roundup Power Max	22 oz/a		POST	D						
20 N-pak ams	1.5 qt/a		POST	D						
LSD (P=.05)	19.6t	20.3	13.4	13.4	24.5	38.2				
Standard Deviation	11.9t	12.2	8.0	8.0	14.8	22.9				
CV	19.78	19.68	12.69	12.69	40.86	41.55				
Bartlett's X2	9.709	17.429	3.98	3.98	10.814	14.676				
P(Bartlett's X2)	0.557	0.358	0.97	0.97	0.821	0.684				
Skewness	-0.5247	-0.3857	-0.3778	-0.3778	0.2077	-0.054				
Kurtosis	-1.2907*	-1.1257	-1.6026*	-1.6026*	-0.7883	-1.0802				
Replicate F	1.919	1.030	1.346	1.346	0.966	4.996				
Replicate Prob(F)	0.1607	0.3675	0.2739	0.2739	0.3897	0.0127				
Treatment F	20.251	19.702	65.884	65.884	8.656	2.639				
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0070				

# The Ohio State University

## On farm marestail split residual application trial

Trial ID: 13 MMA Location: Western Branch Trial Year: 2013  
 Protocol ID: 13 MMA Investigator: Dr. Mark M. Loux  
 Project ID: 13 MMA Study Director: Bryan Reeb  
 Sponsor Contact: OSU

Pest Code				ERICA	ERICA	AMBTR			
Crop Code				GLXMA	GLXMA	GLXMA			
Rating Date				May-28-2013	Jun-25-2013	Jun-25-2013			
Rating Type				CONTRO	CONTRO	CONTRO			
Rating Unit				%	%	%			
Days After First/Last Applic.				55 31	83 27	83 27			
Plant-Eval Interval				31 DP-1	59 DP-1	59 DP-1			
Days After Emergence				11 DE-1	39 DE-1	39 DE-1			
Trt No.	Treatment Name	Other Rate	Other Rate Unit	Growth Stage	Appl Code	7	8	9	10
1	Roundup Power Max	22 oz/a		30 EPP A		95	83	70	
	2,4-D	1 pt/a		30 EPP A					
1	Valor XLT @ 4.5 oz								
1	Valor SX	2.35 oz/a		30 EPP A					
1	Classic	1.65 oz/a		30 EPP A					
1	N-pak ams	1.5 qt/a		30 EPP A					
1	Roundup Power Max	22 oz/a		POST D					
1	N-pak ams	1.5 qt/a		POST D					
2	Roundup Power Max	22 oz/a		30 EPP A		92	70	75	
	2,4-D	1 pt/a		30 EPP A					
2	Valor SX	2 oz/a		30 EPP A					
2	N-pak ams	1.5 qt/a		30 EPP A					
2	Roundup Power Max	22 oz/a		POST D					
2	N-pak ams	1.5 qt/a		POST D					
3	Roundup Power Max	22 oz/a		30 EPP A		88	70	82	
	2,4-D	1 pt/a		30 EPP A					
3	Valor SX	3 oz/a		30 EPP A					
3	N-pak ams	1.5 qt/a		30 EPP A					
3	Roundup Power Max	22 oz/a		POST D					
3	N-pak ams	1.5 qt/a		POST D					
4	Roundup Power Max	22 oz/a		30 EPP A		47	33	63	
	2,4-D	1 pt/a		30 EPP A					
4	Sencor 75DF	8 oz/a		30 EPP A					
4	N-pak ams	1.5 qt/a		30 EPP A					
4	Roundup Power Max	22 oz/a		POST D					
4	N-pak ams	1.5 qt/a		POST D					
5	Roundup Power Max	22 oz/a		30 EPP A		93	52	67	
	2,4-D	1 pt/a		30 EPP A					
5	Sencor 75DF	12 oz/a		30 EPP A					
5	N-pak ams	1.5 qt/a		30 EPP A					
5	Roundup Power Max	22 oz/a		POST D					
5	N-pak ams	1.5 qt/a		POST D					
6	Roundup Power Max	22 oz/a		30 EPP A		37	27	78	
	2,4-D	1 pt/a		30 EPP A					
6	Spartan	2.5 oz/a		30 EPP A					
6	N-pak ams	1.5 qt/a		30 EPP A					
6	Roundup Power Max	22 oz/a		POST D					
6	N-pak ams	1.5 qt/a		POST D					
7	Roundup Power Max	22 oz/a		30 EPP A		57	58	72	
	2,4-D	1 pt/a		30 EPP A					
7	Spartan	5 oz/a		30 EPP A					
7	N-pak ams	1.5 qt/a		30 EPP A					
7	Roundup Power Max	22 oz/a		POST D					
7	N-pak ams	1.5 qt/a		POST D					



# The Ohio State University

## On farm marestail split residual application trial

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 Sponsor Contact: OSU

Pest Code	ERICA	ERICA	AMBTR						
Crop Code	GLXMA	GLXMA	GLXMA						
Rating Date	May-28-2013	Jun-25-2013	Jun-25-2013						
Rating Type	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%						
Days After First/Last Applic.	55 31	83 27	83 27						
Plant-Eval Interval	31 DP-1	59 DP-1	59 DP-1						
Days After Emergence	11 DE-1	39 DE-1	39 DE-1						
Trt No.	Treatment Name	Other Rate	Other Unit	Growth Stage	Appl Code	7	8	9	10
8	Roundup Power Max	22 oz/a		7 EPP	B	53	67	73	
	8 2,4-D	1 pt/a		7 EPP	B				
8	Valor XLT @ 4.5 oz								
	8 Valor SX	2.35 oz/a		7 EPP	B				
	8 Classic	1.65 oz/a		7 EPP	B				
	8 N-pak ams	1.5 qt/a		7 EPP	B				
	8 Roundup Power Max	22 oz/a		POST	D				
	8 N-pak ams	1.5 qt/a		POST	D				
9	Roundup Power Max	22 oz/a		7 EPP	B	57	50	62	
	9 2,4-D	1 pt/a		7 EPP	B				
	9 Valor SX	2 oz/a		7 EPP	B				
	9 N-pak ams	1.5 qt/a		7 EPP	B				
	9 Roundup Power Max	22 oz/a		POST	D				
	9 N-pak ams	1.5 qt/a		POST	D				
10	Roundup Power Max	22 oz/a		7 EPP	B	70	63	67	
	10 2,4-D	1 pt/a		7 EPP	B				
	10 Valor SX	3 oz/a		7 EPP	B				
	10 N-pak ams	1.5 qt/a		7 EPP	B				
	10 Roundup Power Max	22 oz/a		POST	D				
	10 N-pak ams	1.5 qt/a		POST	D				
11	Roundup Power Max	22 oz/a		7 EPP	B	100	80	62	
	11 2,4-D	1 pt/a		7 EPP	B				
	11 Sencor 75DF	8 oz/a		7 EPP	B				
	11 N-pak ams	1.5 qt/a		7 EPP	B				
	11 Roundup Power Max	22 oz/a		POST	D				
	11 N-pak ams	1.5 qt/a		POST	D				
12	Roundup Power Max	22 oz/a		7 EPP	B	100	93	75	
	12 2,4-D	1 pt/a		7 EPP	B				
	12 Sencor 75DF	12 oz/a		7 EPP	B				
	12 N-pak ams	1.5 qt/a		7 EPP	B				
	12 Roundup Power Max	22 oz/a		POST	D				
	12 N-pak ams	1.5 qt/a		POST	D				
13	Roundup Power Max	22 oz/a		7 EPP	B	65	40	67	
	13 2,4-D	1 pt/a		7 EPP	B				
	13 Spartan	2.5 oz/a		7 EPP	B				
	13 N-pak ams	1.5 qt/a		7 EPP	B				
	13 Roundup Power Max	22 oz/a		POST	D				
	13 N-pak ams	1.5 qt/a		POST	D				
14	Roundup Power Max	22 oz/a		7 EPP	B	37	43	77	
	14 2,4-D	1 pt/a		7 EPP	B				
	14 Spartan	5 oz/a		7 EPP	B				
	14 N-pak ams	1.5 qt/a		7 EPP	B				
	14 Roundup Power Max	22 oz/a		POST	D				
	14 N-pak ams	1.5 qt/a		POST	D				

# The Ohio State University

## On farm marestail split residual application trial

Trial ID: 13 MMA Location: Western Branch Trial Year: 2013  
 Protocol ID: 13 MMA Investigator: Dr. Mark M. Loux  
 Project ID: 13 MMA Study Director: Bryan Reeb  
 Sponsor Contact: OSU

Pest Code	ERICA	ERICA	AMBTR						
Crop Code	GLXMA	GLXMA	GLXMA						
Rating Date	May-28-2013	Jun-25-2013	Jun-25-2013						
Rating Type	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%						
Days After First/Last Applic.	55 31	83 27	83 27						
Plant-Eval Interval	31 DP-1	59 DP-1	59 DP-1						
Days After Emergence	11 DE-1	39 DE-1	39 DE-1						
Trt No.	Treatment Name	Other Rate	Other Unit	Growth Stage	Appl Code	7	8	9	10
15	Roundup Power Max	22 oz/a		30 EPP A		98	93		77
	15 2,4-D	1 pt/a		30 EPP A					
15	Valor XLT @ 2oz								
	15 Valor SX	1.17 oz/a		30 EPP A					
	15 Classic	0.83 oz/a		30 EPP A					
	15 N-pak ams	1.5 qt/a		30 EPP A					
	15 Liberty	22 oz/a		ATPL C					
15	Valor XLT @ 2oz								
	15 Valor SX	1.17 oz/a		ATPL C					
	15 Classic	0.83 oz/a		ATPL C					
	15 N-pak ams	1.5 qt/a		ATPL C					
	15 Roundup Power Max	22 oz/a		POST D					
	15 N-pak ams	1.5 qt/a		POST D					
16	Roundup Power Max	22 oz/a		30 EPP A		95	73		62
	16 2,4-D	1 pt/a		30 EPP A					
	16 Valor SX	1 oz/a		30 EPP A					
	16 N-pak ams	1.5 qt/a		30 EPP A					
	16 Liberty	22 oz/a		ATPL C					
	16 Valor SX	1.5 oz/a		ATPL C					
	16 N-pak ams	1.5 qt/a		ATPL C					
	16 Roundup Power Max	22 oz/a		POST D					
	16 N-pak ams	1.5 qt/a		POST D					
17	Roundup Power Max	22 oz/a		30 EPP A		100	77		93
	17 2,4-D	1 pt/a		30 EPP A					
	17 Sencor 75DF	4 oz/a		30 EPP A					
	17 N-pak ams	1.5 qt/a		30 EPP A					
	17 Liberty	22 oz/a		ATPL C					
	17 Sencor 75DF	6 oz/a		ATPL C					
	17 N-pak ams	1.5 qt/a		ATPL C					
	17 Roundup Power Max	22 oz/a		POST D					
	17 N-pak ams	1.5 qt/a		POST D					
18	Roundup Power Max	22 oz/a		30 EPP A		73	63		47
	18 2,4-D	1 pt/a		30 EPP A					
	18 Spartan	1.5 oz/a		30 EPP A					
	18 N-pak ams	1.5 qt/a		30 EPP A					
	18 Liberty	22 oz/a		ATPL C					
	18 Spartan	2 oz/a		ATPL C					
	18 N-pak ams	1.5 qt/a		ATPL C					
	18 Roundup Power Max	22 oz/a		POST D					
	18 N-pak ams	1.5 qt/a		POST D					
19	Liberty	22 oz/a		ATPL C		47	60		96
	19 Sencor 75DF	4 oz/a		ATPL C					
	19 Valor XLT @ 4oz			C					
	19 Valor SX	2.35 oz/a		ATPL C					
	19 Classic	1.65 oz/a		ATPL C					
	19 N-pak ams	1.5 qt/a		ATPL C					
	19 Roundup Power Max	22 oz/a		POST D					
	19 N-pak ams	1.5 qt/a		POST D					

# The Ohio State University

## On farm marestail split residual application trial

Trial ID: 13 MMA Location: Western Branch Trial Year: 2013  
 Protocol ID: 13 MMA Investigator: Dr. Mark M. Loux  
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 Sponsor Contact: OSU

Pest Code	ERICA	ERICA	AMBTR						
Crop Code	GLXMA	GLXMA	GLXMA						
Rating Date	May-28-2013	Jun-25-2013	Jun-25-2013						
Rating Type	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%						
Days After First/Last Applic.	55 31	83 27	83 27						
Plant-Eval Interval	31 DP-1	59 DP-1	59 DP-1						
Days After Emergence	11 DE-1	39 DE-1	39 DE-1						
Trt Treatment	Other	Other	Growth	Appl					
No. Name	Rate	Rate	Unit	Stage	Code	7	8	9	10
20 Roundup Power Max	22 oz/a			7 EPP	B	47	33		62
20 2,4-D	1 pt/a			7 EPP	B				
20 N-pak ams	1.5 qt/a			7 EPP	B				
20 Roundup Power Max	22 oz/a			POST	D				
20 N-pak ams	1.5 qt/a			POST	D				
LSD (P=.05)						26.7	26.1	22.2	.
Standard Deviation						16.2	15.8	13.5	.
CV						22.31	25.71	18.9	.
Bartlett's X2						17.581	18.445	11.515	.
P(Bartlett's X2)						0.349	0.493	0.871	.
Skewness						-0.4958	-0.0583	-0.3015	.
Kurtosis						-1.2269*	-1.0799	-0.3696	.
Replicate F						2.527	3.259	14.556	
Replicate Prob(F)						0.0933	0.0494	0.0001	
Treatment F						6.337	4.563	2.154	
Treatment Prob(F)						0.0001	0.0001	0.0225	

# The Ohio State University

## On farm marestail split residual application trial

Trial ID: 13 MMA      Location: Western Branch      Trial Year: 2013  
Protocol ID: 13 MMA      Investigator: Dr. Mark M. Loux  
Project ID: 13 MMA      Study Director: Bryan Reeb  
Sponsor Contact: OSU

### Pest Code

STEME, *Stellaria media*, = US  
LAMPU, *Lamium purpureum*, = US  
CAPBP, *Capsella bursa-pastoris*, = US  
ERYRE, *Erysimum repandum*, = US  
SETFA, *Setaria faberi*, = US  
AMBTR, *Ambrosia trifida*, = US  
ERICA, *Conyza canadensis*, = US

### Crop Code

GLXMA, BSOY, *Glycine max*, = US

### Rating Type

CONTRO = control / burndown or knockdown

### Rating Unit

% = percent

### Plant-Eval Interval

-1 DP-1 = 1 GLXMA Apr-27-2013  
31 DP-1 = 1 GLXMA Apr-27-2013  
59 DP-1 = 1 GLXMA Apr-27-2013