

Ohio State University Horticulture and Crop Science

MARESTAIL FALL/SPRING RESIDUAL STUDY

Title No. 2:
 Trial ID: 10FALLHOWE(WARS) Protocol ID: 10FALLHOWE
 Location: Western Branch Study Director: BRYAN REEB
 Project ID: 10FALLHOWE Investigator: Dr. Mark M. Loux
 Sponsor Contact:

General Trial Information

Study Director: BRYAN REEB
Investigator: Dr. Mark M. Loux

Trial Location

City: South Charleston **Latitude of LL Corner °:** 39.85822 N
State/Prov.: Ohio **Longitude of LL Corner °:** 83.67738 W
Postal Code: 45368 **Altitude of LL Corner, Unit:** 1095.00 FT
Country: USA

Personnel

Study Director: BRYAN REEB
Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: S.C. 3330 LL **Description:** LL
BBCH Scale: BSOY **Planting Date:** Jun-8-2010
Planting Method: SEEDED seeded **Rate, Unit:** 196000 S/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 15 IN
Seed Bed: MEDTRA medium/trashy
Soil Moisture: GOOD good **Emergence Date:** Jun-15-2010

Pest Description

Pest 1 Type: W **Code:** SENGL Senecio glabellus
Common Name: Cressleaf groundsel

Pest 2 Type: W **Code:** ERPSS Erophila sp.
Common Name: Whitlowgrass

Pest 3 Type: W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed

Pest 4 Type: W **Code:** LAMPU Lamium purpureum
Common Name: Purple deadnettel

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

Site and Design

Plot Width, Unit: 6.67 FT
Plot Length, Unit: 30 FT
Plot Area, Unit: 200.1 FT²
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Unit
1.	Jun-8-2010	Round Up	44	oz
2.	Jun-23-2010	Ignite	32	oz

Comment: sprayed whole trial then planted

On 6/23/10 sprayed whole trial with 32 oz of ignite

Soil Description

Description Name: G-7
% OM: 2 **Texture:** SIL silt loam
pH: 6.2 **Soil Name:** Crosby Silt Loam
CEC: 14 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	Nov-24-2009	Jun-8-2010
Time of Day:	2:00 PM	10:00 AM
Application Method:	SPRAY	SPRAY
Application Timing:	FALL	POST
Application Placement:	BROFOL	BROFOL
Air Temperature, Unit:	53 F	60 F
% Relative Humidity:	70	62
Wind Velocity, Unit:	3 MPH	5 MPH
Wind Direction:	SE	ESE
Dew Presence (Y/N):		N no
Soil Temperature, Unit:	48 F	62 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	100	10
Next Rain Occurred On:	Nov-26-2009	Jun-8-2010

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	BSOY GLXMA BSOY

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	SENGL W	SENGL W
Stage Majority, Percent:	19 100	
Diameter, Unit:	4 IN	
Height, Unit:	4 IN	
Height Minimum, Maximum:	2 4	
Pest 2 Code, Type, Scale:	ERPSS W	ERPSS W
Stage Majority, Percent:	18 100	
Height, Unit:	0.5 IN	
Height Minimum, Maximum:	0.25 0.5	
Pest 3 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:	15 100	19 100
Height, Unit:	0.25 IN	10 IN
Height Minimum, Maximum:		3 10
Pest 4 Code, Type, Scale:	LAMPU W	LAMPU W
Stage Majority, Percent:	16 100	
Diameter, Unit:	1 IN	
Height, Unit:	2 IN	
Height Minimum, Maximum:	1 2	
Pest 5 Code, Type, Scale:	CAPBP W	CAPBP W
Stage Majority, Percent:	18 100	
Diameter, Unit:	2 IN	
Height, Unit:	2 IN	
Height Minimum, Maximum:	1 2	
Pest 6 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:		18 100
Height, Unit:		24 IN
Height Minimum, Maximum:		20 28

Application Equipment

	A	B
Appl. Equipment:	Backpack	TRACTOR
Equipment Type:	SPRBAC	SPTRMO
Operating Pressure, Unit:	52 PSI	33 PSI
Nozzle Type:	DG	DG
Nozzle Size:	8002	11002
Nozzle Spacing, Unit:	18 IN	20 IN
Boom Length, Unit:	6.67 FT	20 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	6 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	20 gal/ac	10 gal/ac
Mix Size, Unit:	0.33 gallons	10 gallons
Propellant:	COMCO2	PUMROL

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 Location: Western Branch Study Director: BRYAN REEB
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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	AMBTR	ERICA	AMBTR	ERICA
Pest Scientific Name	Conyza canadensis	Ambrosia trifida	Conyza canadensis	Ambrosia trifida	Conyza canadensis
Pest Name	Canada horseweed	Giant ragweed	Canada horseweed	Giant ragweed	Canada horseweed
Rating Date	Apr-28-2010	Apr-28-2010	May-13-2010	May-13-2010	May-25-2010
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Days After First/Last Applic.	155 155	155 155	170 170	170 170	182 182
Trt-Eval Interval	155 DA-A	155 DA-A	170 DA-A	170 DA-A	182 DA-A
Plant-Eval Interval	-41 DP-1	-41 DP-1	-26 DP-1	-26 DP-1	-14 DP-1
Days After Emergence	-48 DE	-48 DE	-33 DE	-33 DE	-21 DE
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	1	2	3	4	5
1	2,4-D Ester	4 LBA/GAL		1 pt/a		A	7	0	7	20	3
1	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
1	N-pak ams	100 %		2 qt/a		A					
2	Clarity	4 LBA/GAL		8 oz/a		A	10	10	7	15	3
2	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
2	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
2	N-pak ams	100 %		2 qt/a		A					
3	Clarity	4 LBA/GAL		16 oz/a		A	0	0	0	13	0
3	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
3	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
3	N-pak ams	100 %		2 qt/a		A					
4	Sencor 75DF	75 %AW/W		4 oz/a		A	7	7	0	10	0
4	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
4	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
4	N-pak ams	100 %		2 qt/a		A					
5	Sencor 75DF	75 %AW/W		8 oz/a		A	7	10	3	0	0
5	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
5	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
5	N-pak ams	100 %		2 qt/a		A					
6	Sencor 75DF	75 %AW/W		12 oz/a		A	7	0	0	0	0
6	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
6	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
6	N-pak ams	100 %		2 qt/a		A					
7	Canopy EX @ 1.1oz					A	95	43	67	33	57
7	Classic	25 %AW/W		1 oz/a		A					
7	Express	50 %AW/W		0.1 oz/a		A					
7	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
7	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
7	N-pak ams	100 %		2 qt/a		A					
8	Canopy EX @ 2.2oz					A	99	40	70	30	57
8	Classic	25 %AW/W		1.97 oz/a		A					
8	Express	50 %AW/W		0.20 oz/a		A					
8	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
8	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
8	N-pak ams	100 %		2 qt/a		A					
9	Canopy	75 %AW/W		2.25 oz/a		A	87	33	67	23	53
9	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
9	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
9	N-pak ams	100 %		2 qt/a		A					
10	Canopy	75 %AW/W		4.5 oz/a		A	92	48	75	40	60
10	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
10	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	ERICA	AMBTR	ERICA	AMBTR	ERICA						
Pest Scientific Name	Conyza canadensis	Ambrosia trifida	Conyza canadensis	Ambrosia trifida	Conyza canadensis						
Pest Name	Canada horseweed	Giant ragweed	Canada horseweed	Giant ragweed	Canada horseweed						
Rating Date	Apr-28-2010	Apr-28-2010	May-13-2010	May-13-2010	May-25-2010						
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL						
Rating Unit	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1						
Days After First/Last Applic.	155 155	155 155	170 170	170 170	182 182						
Trt-Eval Interval	155 DA-A	155 DA-A	170 DA-A	170 DA-A	182 DA-A						
Plant-Eval Interval	-41 DP-1	-41 DP-1	-26 DP-1	-26 DP-1	-14 DP-1						
Days After Emergence	-48 DE	-48 DE	-33 DE	-33 DE	-21 DE						
Number of Decimals	0	0	0	0	0						
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	1	2	3	4	5
10	N-pak ams	100 %		2 qt/a		A					
11	Canopy	75 %AW/W		2.25 oz/a		A	93	45	72	37	57
	11 Sencor 75DF	75 %AW/W		6 oz/a		A					
	11 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	11 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	11 N-pak ams	100 %		2 qt/a		A					
12	VALOR XLT @ 2 oz					A	100	72	97	43	95
	12 Valor SX	51 %AW/W		1.17 oz/a		A					
	12 Classic	25 %AW/W		0.83 oz/a		A					
	12 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	12 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	12 N-pak ams	100 %		2 qt/a		A					
13	VALOR XLT @ 4 oz					A	100	67	100	50	98
	13 Valor SX	51 %AW/W		2.35 oz/a		A					
	13 Classic	25 %AW/W		1.65 oz/a		A					
	13 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	13 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	13 N-pak ams	100 %		2 qt/a		A					
14	Valor SX	51 %AW/W		1 oz/a		A	57	23	10	10	10
	14 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	14 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	14 N-pak ams	100 %		2 qt/a		A					
15	Valor SX	51 %AW/W		2 oz/a		A	99	50	63	20	40
	15 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	15 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	15 N-pak ams	100 %		2 qt/a		A					
16	Sharpen	2.85 LBA/GAL		1 oz/a		A	7	7	0	0	7
	16 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	16 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	16 N-pak ams	100 %		2 qt/a		A					
17	Authority MTZ	45 %AW/W		12 oz/a		A	30	13	13	10	3
	17 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	17 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	17 N-pak ams	100 %		2 qt/a		A					
18	F9016-1 authority blf	70 %AW/W		2 oz/a		A	93	70	72	47	63
	18 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	18 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	18 N-pak ams	100 %		2 qt/a		A					
19	F9016-1 authority blf	70 %AW/W		4 oz/a		A	100	65	90	15	87
	19 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	19 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	19 N-pak ams	100 %		2 qt/a		A					
20	Scepter	70 %AW/W		2.8 oz/a		A	33	17	17	20	7
	20 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	20 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	20 N-pak ams	100 %		2 qt/a		A					
21	KIH 485	85 %AW/W		2.5 oz/a		A	7	0	0	0	0
	21 2,4-D Ester	4 LBA/GAL		1 pt/a		A					
	21 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
	21 N-pak ams	100 %		2 qt/a		A					
22	KIH 485	85 %AW/W		5 oz/a		A	50	20	33	7	17
	22 2,4-D Ester	4 LBA/GAL		1 pt/a		A					

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	ERICA	AMBTR	ERICA	AMBTR
Pest Scientific Name	Ambrosia trifi>	Conyza canad>	Ambrosia trifi>	Conyza canad>	Ambrosia trifi>
Pest Name	Giant ragweed	Canada horsewe>	Giant ragweed	Canada horsewe>	Giant ragweed
Rating Date	May-25-2010	Jun-8-2010	Jun-8-2010	Jun-22-2010	Jun-22-2010
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Days After First/Last Applic.	182 182	196 196	196 196	210 14	210 14
Trt-Eval Interval	182 DA-A				
Plant-Eval Interval	-14 DP-1	0 DP-1	0 DP-1	14 DP-1	14 DP-1
Days After Emergence	-21 DE	-7 DE-	-7 DE-	7 DE-1	7 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	6	7	8	9	10
1	2,4-D Ester	4 LBA/GAL		1 pt/a		A	0	0	0	17	80
1	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
1	N-pak ams	100 %		2 qt/a		A					
2	Clarity	4 LBA/GAL		8 oz/a		A	0	0	0	27	63
2	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
2	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
2	N-pak ams	100 %		2 qt/a		A					
3	Clarity	4 LBA/GAL		16 oz/a		A	0	0	0	13	67
3	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
3	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
3	N-pak ams	100 %		2 qt/a		A					
4	Sencor 75DF	75 %AW/W		4 oz/a		A	0	0	0	20	70
4	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
4	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
4	N-pak ams	100 %		2 qt/a		A					
5	Sencor 75DF	75 %AW/W		8 oz/a		A	0	0	0	30	52
5	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
5	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
5	N-pak ams	100 %		2 qt/a		A					
6	Sencor 75DF	75 %AW/W		12 oz/a		A	0	0	0	17	60
6	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
6	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
6	N-pak ams	100 %		2 qt/a		A					
7	Canopy EX @ 1.1oz					A	0	50	20	40	55
7	Classic	25 %AW/W		1 oz/a		A					
7	Express	50 %AW/W		0.1 oz/a		A					
7	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
7	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
7	N-pak ams	100 %		2 qt/a		A					
8	Canopy EX @ 2.2oz					A	0	47	7	50	58
8	Classic	25 %AW/W		1.97 oz/a		A					
8	Express	50 %AW/W		0.20 oz/a		A					
8	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
8	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
8	N-pak ams	100 %		2 qt/a		A					
9	Canopy	75 %AW/W		2.25 oz/a		A	0	43	13	38	78
9	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
9	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					
9	N-pak ams	100 %		2 qt/a		A					
10	Canopy	75 %AW/W		4.5 oz/a		A	10	47	20	47	85
10	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
10	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A					

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	AMBTR	ERICA	AMBTR	ERICA	AMBTR							
Pest Scientific Name	Ambrosia trifi>	Conyza canad>	Ambrosia trifi>	Conyza canad>	Ambrosia trifi>							
Pest Name	Giant ragweed	Canada horsewe>	Giant ragweed	Canada horsewe>	Giant ragweed							
Rating Date	May-25-2010	Jun-8-2010	Jun-8-2010	Jun-22-2010	Jun-22-2010							
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL							
Rating Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Days After First/Last Applic.	182 182	196 196	196 196	210 14	210 14							
Trt-Eval Interval	182 DA-A											
Plant-Eval Interval	-14 DP-1	0 DP-1	0 DP-1	14 DP-1	14 DP-1							
Days After Emergence	-21 DE	-7 DE-	-7 DE-	7 DE-1	7 DE-1							
Number of Decimals	0	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit	Code	6	7	8	9	10
10	N-pak ams	100 %		2 qt/a		A						
11	Canopy	75 %AW/W		2.25 oz/a		A		13	33	17	45	63
	11 Sencor 75DF	75 %AW/W		6 oz/a		A						
	11 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	11 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	11 N-pak ams	100 %		2 qt/a		A						
12	VALOR XLT @ 2 oz					A		23	80	40	60	80
	12 Valor SX	51 %AW/W		1.17 oz/a		A						
	12 Classic	25 %AW/W		0.83 oz/a		A						
	12 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	12 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	12 N-pak ams	100 %		2 qt/a		A						
13	VALOR XLT @ 4 oz					A		37	90	37	83	70
	13 Valor SX	51 %AW/W		2.35 oz/a		A						
	13 Classic	25 %AW/W		1.65 oz/a		A						
	13 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	13 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	13 N-pak ams	100 %		2 qt/a		A						
14	Valor SX	51 %AW/W		1 oz/a		A		0	10	7	23	63
	14 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	14 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	14 N-pak ams	100 %		2 qt/a		A						
15	Valor SX	51 %AW/W		2 oz/a		A		17	37	20	37	60
	15 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	15 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	15 N-pak ams	100 %		2 qt/a		A						
16	Sharpen	2.85 LBA/GAL		1 oz/a		A		0	0	0	20	68
	16 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	16 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	16 N-pak ams	100 %		2 qt/a		A						
17	Authority MTZ	45 %AW/W		12 oz/a		A		0	7	0	20	63
	17 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	17 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	17 N-pak ams	100 %		2 qt/a		A						
18	F9016-1 authority blf	70 %AW/W		2 oz/a		A		27	57	40	40	80
	18 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	18 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	18 N-pak ams	100 %		2 qt/a		A						
19	F9016-1 authority blf	70 %AW/W		4 oz/a		A		37	73	37	43	67
	19 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	19 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	19 N-pak ams	100 %		2 qt/a		A						
20	Scepter	70 %AW/W		2.8 oz/a		A		7	0	10	23	57
	20 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	20 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	20 N-pak ams	100 %		2 qt/a		A						
21	KIH 485	85 %AW/W		2.5 oz/a		A		0	0	0	17	65
	21 2,4-D Ester	4 LBA/GAL		1 pt/a		A						
	21 Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A						
	21 N-pak ams	100 %		2 qt/a		A						
22	KIH 485	85 %AW/W		5 oz/a		A		0	7	7	27	60
	22 2,4-D Ester	4 LBA/GAL		1 pt/a		A						

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	ERICA	AMBTR	ERICA	AMBTR
Pest Scientific Name	Ambrosia trifi>	Conyza canad>	Ambrosia trifi>	Conyza canad>	Ambrosia trifi>
Pest Name	Giant ragweed	Canada horsewe>	Giant ragweed	Canada horsewe>	Giant ragweed
Rating Date	May-25-2010	Jun-8-2010	Jun-8-2010	Jun-22-2010	Jun-22-2010
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Days After First/Last Applic.	182 182	196 196	196 196	210 14	210 14
Trt-Eval Interval	182 DA-A				
Plant-Eval Interval	-14 DP-1	0 DP-1	0 DP-1	14 DP-1	14 DP-1
Days After Emergence	-21 DE	-7 DE-	-7 DE-	7 DE-1	7 DE-1
Number of Decimals	0	0	0	0	0
Trt Treatment	Form Form	Other Other	Appl		
No. Name	Conc Unit	Rate Rate	Unit Code	6	7
22 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
22 N-pak ams	100 %	2 qt/a	A		
22 Ignite	2.34 LBA/GAL	22 oz/a	B		
LSD (P=.05)	26.8	17.7	29.4	18.8	31.2
Standard Deviation	16.2	10.7	17.8	11.4	18.9
CV	210.15	40.59	143.47	34.1	28.35
Bartlett's X2	6.054	9.46	9.271	21.267	16.18
P(Bartlett's X2)	0.533	0.663	0.68	0.322	0.759
Replicate F	0.741	4.327	1.450	2.830	0.717
Replicate Prob(F)	0.4827	0.0196	0.2462	0.0703	0.4940
Treatment F	1.750	23.924	1.970	6.617	0.698
Treatment Prob(F)	0.0608	0.0001	0.0305	0.0001	0.8108

Pest Type	W Weed	W Weed
Pest Code	AMBTR	ERICA
Pest Scientific Name	Ambrosia trifida	Conyza canadensis
Pest Name	Giant ragweed	Canada horseweed
Rating Date	Jul-9-2010	Jul-9-2010
Rating Type	CONTROL	CONTROL
Rating Unit	%	%
Number of Subsamples	1	1
Days After First/Last Applic.	227 31	227 31
Trt-Eval Interval		
Plant-Eval Interval	31 DP-1	31 DP-1
Days After Emergence	24 DE-	24 DE-
Number of Decimals	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	11	12
1	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	62
1	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
1	N-pak ams	100 %		2 qt/a		A		
2	Clarity	4 LBA/GAL		8 oz/a		A	100	62
2	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
2	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
2	N-pak ams	100 %		2 qt/a		A		
3	Clarity	4 LBA/GAL		16 oz/a		A	97	63
3	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
3	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
3	N-pak ams	100 %		2 qt/a		A		
4	Sencor 75DF	75 %AW/W		4 oz/a		A	100	60
4	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
4	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
4	N-pak ams	100 %		2 qt/a		A		
5	Sencor 75DF	75 %AW/W		8 oz/a		A	93	63
5	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
5	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
5	N-pak ams	100 %		2 qt/a		A		
6	Sencor 75DF	75 %AW/W		12 oz/a		A	100	62
6	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
6	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
6	N-pak ams	100 %		2 qt/a		A		
7	Canopy EX @ 1.1oz						95	50
7	Classic	25 %AW/W		1 oz/a		A		
7	Express	50 %AW/W		0.1 oz/a		A		
7	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
7	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
7	N-pak ams	100 %		2 qt/a		A		
8	Canopy EX @ 2.2oz						97	50
8	Classic	25 %AW/W		1.97 oz/a		A		
8	Express	50 %AW/W		0.20 oz/a		A		
8	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
8	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
8	N-pak ams	100 %		2 qt/a		A		
9	Canopy	75 %AW/W		2.25 oz/a		A	100	50
9	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
9	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		
9	N-pak ams	100 %		2 qt/a		A		
10	Canopy	75 %AW/W		4.5 oz/a		A	93	50
10	2,4-D Ester	4 LBA/GAL		1 pt/a		A		
10	Roundup Power Max	4.5 LBAE/GAL		10.7 oz/a		A		

Pest Type	W Weed	W Weed			
Pest Code	AMBTR	ERICA			
Pest Scientific Name	Ambrosia trifi>	Conyza canad>			
Pest Name	Giant ragweed	Canada horsewe>			
Rating Date	Jul-9-2010	Jul-9-2010			
Rating Type	CONTROL	CONTROL			
Rating Unit	%	%			
Number of Subsamples	1	1			
Days After First/Last Applic.	227 31	227 31			
Trt-Eval Interval					
Plant-Eval Interval	31 DP-1	31 DP-1			
Days After Emergence	24 DE-	24 DE-			
Number of Decimals	0	0			
Trt Treatment	Form Form	Other Other	Appl	11	12
No. Name	Conc Unit	Rate Rate	Unit Code		
10 N-pak ams	100 %	2 qt/a	A		
11 Canopy	75 %AW/W	2.25 oz/a	A	95	67
11 Sencor 75DF	75 %AW/W	6 oz/a	A		
11 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
11 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
11 N-pak ams	100 %	2 qt/a	A		
12 VALOR XLT @ 2 oz				97	73
12 Valor SX	51 %AW/W	1.17 oz/a	A		
12 Classic	25 %AW/W	0.83 oz/a	A		
12 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
12 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
12 N-pak ams	100 %	2 qt/a	A		
13 VALOR XLT @ 4 oz				92	100
13 Valor SX	51 %AW/W	2.35 oz/a	A		
13 Classic	25 %AW/W	1.65 oz/a	A		
13 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
13 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
13 N-pak ams	100 %	2 qt/a	A		
14 Valor SX	51 %AW/W	1 oz/a	A	95	57
14 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
14 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
14 N-pak ams	100 %	2 qt/a	A		
15 Valor SX	51 %AW/W	2 oz/a	A	93	65
15 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
15 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
15 N-pak ams	100 %	2 qt/a	A		
16 Sharpen	2.85 LBA/GAL	1 oz/a	A	93	62
16 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
16 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
16 N-pak ams	100 %	2 qt/a	A		
17 Authority MTZ	45 %AW/W	12 oz/a	A	97	60
17 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
17 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
17 N-pak ams	100 %	2 qt/a	A		
18 F9016-1 authority blf	70 %AW/W	2 oz/a	A	100	53
18 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
18 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
18 N-pak ams	100 %	2 qt/a	A		
19 F9016-1 authority blf	70 %AW/W	4 oz/a	A	87	70
19 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
19 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
19 N-pak ams	100 %	2 qt/a	A		
20 Scepter	70 %AW/W	2.8 oz/a	A	93	60
20 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
20 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
20 N-pak ams	100 %	2 qt/a	A		
21 KIH 485	85 %AW/W	2.5 oz/a	A	93	60
21 2,4-D Ester	4 LBA/GAL	1 pt/a	A		
21 Roundup Power Max	4.5 LBAE/GAL	10.7 oz/a	A		
21 N-pak ams	100 %	2 qt/a	A		
22 KIH 485	85 %AW/W	5 oz/a	A	97	60
22 2,4-D Ester	4 LBA/GAL	1 pt/a	A		

Pest Type	W Weed	W Weed							
Pest Code	AMBTR	ERICA							
Pest Scientific Name	Ambrosia trifida	Conyza canadensis							
Pest Name	Giant ragweed	Canada horseweed							
Rating Date	Jul-9-2010	Jul-9-2010							
Rating Type	CONTROL	CONTROL							
Rating Unit	%	%							
Number of Subsamples	1	1							
Days After First/Last Applic.	227 31	227 31							
Trt-Eval Interval									
Plant-Eval Interval	31 DP-1	31 DP-1							
Days After Emergence	24 DE-	24 DE-							
Number of Decimals	0	0							
Trt No.	Treatment	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit	Code	11	12
22	Roundup Power Max	4.5	LBAE/GAL	10.7	oz/a	A			
22	N-pak ams	100	%	2	qt/a	A			
22	Ignite	2.34	LBA/GAL	22	oz/a	B			
LSD (P=.05)								12.7	15.6
Standard Deviation								7.7	9.4
CV								8.06	15.3
Bartlett's X2								6.172	23.563
P(Bartlett's X2)								0.977	0.035*
Replicate F								0.102	0.386
Replicate Prob(F)								0.9036	0.6820
Treatment F								0.595	3.793
Treatment Prob(F)								0.8988	0.0001

Ohio State University Horticulture and Crop Science

MARESTAIL FALL/SPRING RESIDUAL STUDY

Title No. 2:

Trial ID: 10FALLHOWE(WARS)
Location: Western Branch
Project ID: 10FALLHOWE

Protocol ID: 10FALLHOWE
Study Director: BRYAN REEB
Investigator: Dr. Mark M. Loux
Sponsor Contact:

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

ERICA, Conyza canadensis, = US
AMBTR, Ambrosia trifida, = US

Rating Unit

% = percent

Plant-Eval Interval

-41 DP-1 = 1 Jun-8-2010
-26 DP-1 = 1 Jun-8-2010
-14 DP-1 = 1 Jun-8-2010
0 DP-1 = 1 Jun-8-2010
14 DP-1 = 1 Jun-8-2010
31 DP-1 = 1 Jun-8-2010

Ohio State University Horticulture and Crop Science

MARESTAIL FALL/SPRING RESIDUAL STUDY

Title No. 2:
 Trial ID: 10FALLHOWE(WARS) Protocol ID: 10FALLHOWE
 Location: Western Branch Study Director: BRYAN REEB
 Project ID: 10FALLHOWE Investigator: Dr. Mark M. Loux
 Sponsor Contact:

General Trial Information

Study Director: BRYAN REEB
Investigator: Dr. Mark M. Loux

Trial Location

City: South Charleston **Latitude of LL Corner °:** 39.85822 N
State/Prov.: Ohio **Longitude of LL Corner °:** 83.67738 W
Postal Code: 45368 **Altitude of LL Corner, Unit:** 1095.00 FT
Country: USA

Personnel

Study Director: BRYAN REEB
Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: S.C. 3330 LL **Description:** LL
BBCH Scale: BSOY **Planting Date:** Jun-8-2010
Planting Method: SEEDED seeded **Rate, Unit:** 196000 S/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 15 IN
Seed Bed: MEDTRA medium/trashy
Soil Moisture: GOOD good **Emergence Date:** Jun-15-2010

Pest Description

Pest 1 Type: W **Code:** SENGL Senecio glabellus
Common Name: Cressleaf groundsel

Pest 2 Type: W **Code:** ERPSS Erophila sp.
Common Name: Whitlowgrass

Pest 3 Type: W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed

Pest 4 Type: W **Code:** LAMPU Lamium purpureum
Common Name: Purple deadnettel

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

Site and Design

Plot Width, Unit: 6.67 FT
Plot Length, Unit: 30 FT
Plot Area, Unit: 200.1 FT²
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Unit
1.	Jun-8-2010	Round Up	44	oz
2.	Jun-23-2010	Ignite	32	oz

Comment: sprayed whole trial then planted

On 6/23/10 sprayed whole trial with 32 oz of ignite

Soil Description

Description Name: G-7
% OM: 2 **Texture:** SIL silt loam
pH: 6.2 **Soil Name:** Crosby Silt Loam
CEC: 14 **Fert. Level:** G good
Soil Drainage: G good