

Ohio State University Horticulture and Crop Science

Valor Sharpen Marestail Burndown

Title No. 2:

Trial ID: 10NTS8
Location: WESTERN BRANCH ENT E-1
Project ID: MD 99.03

Protocol ID: 10NTS8
Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux
Sponsor Contact: Eric Ott, Valent

General Trial Information

Study Director: Anthony F. Dobbels **Title:** Research Specialist
Investigator: Dr. Mark M. Loux **Title:** Professor

Trial Location

City: South Charleston **Latitude of LL Corner °:** 39.53035 N
State/Prov.: Ohio **Longitude of LL Corner °:** 83.17571 W
Postal Code: 45368 **Altitude of LL Corner, Unit:** 1029.00 FT
Country: USA

Personnel

Study Director: Anthony F. Dobbels **Title:** Research Specialist
Affiliation: The Ohio State University
Address: 7721 South Charleston Pike
Location: South Charleston OH
Postal Code: 45368 **E-mail:** dobbels.1@osu.edu
Investigator: Dr. Mark M. Loux **Title:** Professor
Affiliation: The Ohio State University
Address: 222 Kottman Hall, 2021 Coffey Road
Location: Columbus OH
Postal Code: 43210 **E-mail:** loux.1@osu.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: PIONEER 93Y20 **Description:** RR
BBCH Scale: BSOY **Planting Date:** May-26-2010
Planting Method: SEEDED seeded **Rate, Unit:** 19600 S/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 15 IN
Seed Bed: MEDTRA medium/trashy **Soil Temperature, Unit:** 64 F
Soil Moisture: SLIWET slightly wet

Crop 2: GLXMA Glycine max Soybean
Variety: PIONEER 93Y20 **Description:** RR
BBCH Scale: BSOY **Planting Date:** May-28-2010
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 Temperature, Unit:** 68 F
Soil Moisture: NORMAL normal

Crop 3: GLXMA Glycine max Soybean
Variety: PIONEER 93Y20 **Description:** RR
BBCH Scale: BSOY **Planting Date:** Jun-2-2010
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 Temperature, Unit:** 68 F
Soil Moisture: NORMAL normal

Crop 4: GLXMA Glycine max Soybean
Variety: PIONEER 93Y20 **Description:** RR
BBCH Scale: BSOY **Rate, Unit:** 196000 S/A
Planting Method: SEEDED seeded
Depth, Unit: 0.75 IN
Row Spacing, Unit: 15 IN
Seed Bed: MEDTRA medium/trashy **Soil Temperature, Unit:** 68 F
Soil Moisture: NORMAL normal

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Pest Description

Pest 1 Type: W **Code:** ERICA *Conyza canadensis*
Common Name: Canada horseweed

Pest 2 Type: W **Code:** STEME *Stellaria media*
Common Name: Common chickweed

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

Pest 4 Type: W **Code:** TAROF *Taraxacum officinale*
Common Name: Common dandelion

Pest 5 Type: W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters

Pest 6 Type: W **Code:** RANAB *Ranunculus abortivus*
Common Name: Smallflower buttercup

Pest 7 Type: W **Code:** CAPBP *Capsella bursa-pastoris*
Common Name: Shepherd's purse

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 40 FT
Plot Area, Unit: 400 FT2
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: NOTILL no-till
Study Design: RACOB L Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: Entomology W-6
% OM: 2.6
pH: 7.1
CEC: 17.8
Texture: SICL silty clay loam
Soil Name: Kokomo
Fert. Level: G good
Soil Drainage: G good

Application Description

Application Date: May-26-2010
Time of Day: 10:00 A.M
Application Method: SPRAY
Application Timing: PRE
Application Placement: BROFOL
Applied By: Dobbels
Air Temperature, Unit: 82 F
% Relative Humidity: 65
Wind Velocity, Unit: 3 MPH
Wind Direction: NE
Dew Presence (Y/N): N no
Soil Temperature, Unit: 67 F
Soil Moisture: SLIWET
% Cloud Cover: 10

Crop Stage At Each Application

Crop 1 Code, BBCH Scale: GLXMA BSOY
Crop 2 Code, BBCH Scale: GLXMA BSOY
Crop 3 Code, BBCH Scale: GLXMA BSOY
Crop 4 Code, BBCH Scale: GLXMA BSOY

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ERICA W
Stage Majority, Percent:	37 100
Diameter, Unit:	8 IN
Height, Unit:	12 IN
Height Minimum, Maximum:	10 12
Density, Unit:	10 M2
Pest 2 Code, Type, Scale:	STEME W
Stage Majority, Percent:	67 100
Diameter, Unit:	8 IN
Height, Unit:	3 IN
Height Minimum, Maximum:	2 3
Density, Unit:	2 M2
Pest 3 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	19 100
Height, Unit:	30 IN
Height Minimum, Maximum:	24 30
Density, Unit:	10 M2
Pest 4 Code, Type, Scale:	TAROF W
Stage Majority, Percent:	65 100
Diameter, Unit:	10 IN
Height, Unit:	4 IN
Height Minimum, Maximum:	3 4
Density, Unit:	1 M2
Pest 5 Code, Type, Scale:	CHEAL W
Stage Majority, Percent:	19 100
Height, Unit:	10 IN
Height Minimum, Maximum:	10 14
Density, Unit:	8 M2
Pest 6 Code, Type, Scale:	RANAB W
Stage Majority, Percent:	69 100
Diameter, Unit:	4 IN
Height, Unit:	6 IN
Height Minimum, Maximum:	4 6
Density, Unit:	3 M2
Pest 7 Code, Type, Scale:	CAPBP W
Stage Majority, Percent:	81 100
Diameter, Unit:	4 IN
Height, Unit:	18 IN
Height Minimum, Maximum:	18 20
Density, Unit:	5 M2

Application Equipment

	A
Appl. Equipment:	BACKPACK
Equipment Type:	SPRBAC
Operating Pressure, Unit:	53 PSI
Nozzle Type:	TEEJET DG
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 IN
Boom Length, Unit:	10 FT
Boom Height, Unit:	20 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	20 GPA
Mix Size, Unit:	3 Liters
Propellant:	CO2

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Pest Type													
Pest Code													
Pest Scientific Name													
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Rating Date	Jun-11-2010	Jun-24-2010	Jun-11-2010	Jun-24-2010	Jun-16-2010	Jul-1-2010							
Rating Type	PHYDEF	PHYDEF	PHYDEF	PHYDEF	PHYDEF	PHYDEF							
Rating Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Days After First/Last Applic.	16 16	29 29	16 16	29 29	21 21	36 36							
Trt-Eval Interval	16 DA-A	29 DA-A	16 DA-A	29 DA-A	21 DA-A	36 DA-A							
Plant-Eval Interval	14 da pre	28 da pre	14 da 3 dap	28 da 3 dap	14 da 7 dap	28 da 7 dap							
Number of Decimals	0	0	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit	Code	1	2	3	4	5	6
15	2,4-D Ester	4 LBA/GAL		1 pt/a		A		6	2	6	0	3	2
15	Valor SX	51		2 oz/a		A							
15	Sharpen	2.85 LBA/GAL		0.75 oz/a		A							
15	MSO	100 %		0.8 qt/a									
16	2,4-D Ester	4 LBA/GAL		1 pt/a		A		11	1	11	1	5	1
16	Valor SX	51		2 oz/a		A							
16	Sharpen	2.85 LBA/GAL		1 oz/a		A							
16	MSO	100 %		0.8 qt/a									
	LSD (P=.05)							6.7	5.7	6.7	2.9	6.1	3.7
	Standard Deviation							4.7	4.0	4.7	2.0	4.3	2.6
	CV							90.34	164.41	90.34	180.32	201.68	183.83
	Bartlett's X2							16.569	46.134	16.569	20.191	5.676	16.452
	P(Bartlett's X2)							0.345	0.001*	0.345	0.064	0.842	0.125
	Replicate F							0.889	5.456	0.889	5.970	1.460	0.187
	Replicate Prob(F)							0.4542	0.0028	0.4542	0.0016	0.2380	0.9045
	Treatment F							1.590	1.222	1.590	0.774	0.724	0.852
	Treatment Prob(F)							0.1151	0.2913	0.1151	0.6974	0.7479	0.6185

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Pest Type				W Weed	W Weed	W Weed
Pest Code				ERICA	AMBTR	RANAB
Pest Scientific Name				Conyza canadens>	Ambrosia trifi>	Ranunculus abo>
Pest Name				Canada horsewe>	Giant ragweed	Smallflower bu>
Crop Code	GLXMA	GLXMA				
BBCH Scale	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max				
Crop Name	Soybean	Soybean				
Rating Date	Jun-24-2010	Jul-8-2010		Jun-2-2010	Jun-2-2010	Jun-2-2010
Rating Type	PHYDEF	PHYDEF		CONTRO	CONTRO	CONTRO
Rating Unit	%	%		%	%	%
Number of Subsamples	1	1		1	1	1
Days After First/Last Applic.	29 29	43 43		7 7	7 7	7 7
Trt-Eval Interval	29 DA-A	43 DA-A		7 DA-A	7 DA-A	7 DA-A
Plant-Eval Interval	14 da 14 dp	18 da 14 dp		7 DP-1	7 DP-1	7 DP-1
Number of Decimals	0	0		0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Unit Code	7	8	9	10	11
1	Roundup PowerMax	4.5 LBAE/GAL		22 oz/a		A	0	1	30	74	68
2	Sharpen	2.85 LBA/GAL		0.5 oz/a		A	1	4	98	81	67
2	MSO	100 %		0.8 qt/a							
3	Sharpen	2.85 LBA/GAL		0.75 oz/a		A	0	1	100	91	64
3	MSO	100 %		0.8 qt/a							
4	Sharpen	2.85 LBA/GAL		1 oz/a		A	0	2	94	89	65
4	MSO	100 %		0.8 qt/a							
5	Valor SX	51		2 oz/a		A	0	0	35	73	53
5	MSO	100 %		0.8 qt/a							
6	Valor SX	51		2 oz/a		A	0	2	100	93	75
6	Sharpen	2.85 LBA/GAL		0.5 oz/a		A					
6	MSO	100 %		0.8 qt/a							
7	Valor SX	51		2 oz/a		A	0	1	94	74	50
7	Sharpen	2.85 LBA/GAL		0.75 oz/a		A					
7	MSO	100 %		0.8 qt/a							
8	Valor SX	51		2 oz/a		A	0	1	100	100	80
8	Sharpen	2.85 LBA/GAL		1 oz/a		A					
8	MSO	100 %		0.8 qt/a							
9	2,4-D Ester	4 LBA/GAL		1 pt/a		A	1	1	43	58	50
10	Valor SX	51		2 oz/a		A	1	2	50	73	75
10	2,4-D Ester	4 LBA/GAL		1 pt/a		A					
11	2,4-D Ester	4 LBA/GAL		1 pt/a		A	0	1	100	87	65
11	Sharpen	2.85 LBA/GAL		0.5 oz/a		A					
11	MSO	100 %		0.8 qt/a							
12	2,4-D Ester	4 LBA/GAL		1 pt/a		A	0	2	100	92	67
12	Sharpen	2.85 LBA/GAL		0.75 oz/a		A					
12	MSO	100 %		0.8 qt/a							
13	2,4-D Ester	4 LBA/GAL		1 pt/a		A	0	2	100	92	70
13	Sharpen	2.85 LBA/GAL		1 oz/a		A					
13	MSO	100 %		0.8 qt/a							
14	2,4-D Ester	4 LBA/GAL		1 pt/a		A	0	3	100	94	83
14	Valor SX	51		2 oz/a		A					
14	Sharpen	2.85 LBA/GAL		0.5 oz/a		A					
14	MSO	100 %		0.8 qt/a							

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Pest Type				W Weed	W Weed	W Weed						
Pest Code				ERICA	AMBTR	RANAB						
Pest Scientific Name				Conyza canadens>	Ambrosia trifi>	Ranunculus abo>						
Pest Name				Canada horsewe>	Giant ragweed	Smallflower bu>						
Crop Code	GLXMA	GLXMA										
BBCH Scale	BSOY	BSOY										
Crop Scientific Name	Glycine max	Glycine max										
Crop Name	Soybean	Soybean										
Rating Date	Jun-24-2010	Jul-8-2010		Jun-2-2010	Jun-2-2010	Jun-2-2010						
Rating Type	PHYDEF	PHYDEF		CONTRO	CONTRO	CONTRO						
Rating Unit	%	%		%	%	%						
Number of Subsamples	1	1		1	1	1						
Days After First/Last Applic.	29	43		7	7	7						
Trt-Eval Interval	29 DA-A	43 DA-A		7 DA-A	7 DA-A	7 DA-A						
Plant-Eval Interval	14 da 14 dp	18 da 14 dp		7 DP-1	7 DP-1	7 DP-1						
Number of Decimals	0	0		0	0	0						
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit	Code	7	8	9	10	11
15	2,4-D Ester	4 LBA/GAL		1 pt/a		A		0	1	100	95	76
15	Valor SX	51		2 oz/a		A						
15	Sharpen	2.85 LBA/GAL		0.75 oz/a		A						
15	MSO	100 %		0.8 qt/a								
16	2,4-D Ester	4 LBA/GAL		1 pt/a		A		0	2	100	98	71
16	Valor SX	51		2 oz/a		A						
16	Sharpen	2.85 LBA/GAL		1 oz/a		A						
16	MSO	100 %		0.8 qt/a								
	LSD (P=.05)							1.3	2.5	7.5	11.7	15.5
	Standard Deviation							0.9	1.7	5.2	8.2	10.7
	CV							464.61	110.65	6.23	9.64	15.87
	Bartlett's X2							0.889	4.951	4.86	27.948	18.926
	P(Bartlett's X2)							0.641	0.986	0.433	0.022*	0.125
	Replicate F							1.561	7.822	1.925	1.308	5.337
	Replicate Prob(F)							0.2119	0.0003	0.1391	0.2843	0.0049
	Treatment F							0.906	1.200	106.090	8.278	3.339
	Treatment Prob(F)							0.5629	0.3070	0.0001	0.0001	0.0029

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Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	CAPBP	TAROF	STEME	ERICA							
Pest Scientific Name	Capsella bursa>	Taraxacum offi>	Stellaria media	Conyza canadens>							
Pest Name	Shepherd's pur>	Common dandel>	Common chickwe>	Canada horsewe>							
Crop Code											
BBCH Scale											
Crop Scientific Name											
Crop Name											
Rating Date	Jun-2-2010	Jun-2-2010	Jun-2-2010	Jun-10-2010							
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO							
Rating Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Days After First/Last Applic.	7 7	7 7	7 7	15 15							
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	15 DA-A							
Plant-Eval Interval	7 DP-1	7 DP-1	7 DP-1	15 DP-1							
Number of Decimals	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit	Code	12	13	14	15
15	2,4-D Ester	4	LBA/GAL	1	pt/a	A		89	85	100	95
15	Valor SX	51		2	oz/a	A					
15	Sharpen	2.85	LBA/GAL	0.75	oz/a	A					
15	MSO	100	%	0.8	qt/a						
16	2,4-D Ester	4	LBA/GAL	1	pt/a	A		71	88	100	95
16	Valor SX	51		2	oz/a	A					
16	Sharpen	2.85	LBA/GAL	1	oz/a	A					
16	MSO	100	%	0.8	qt/a						
	LSD (P=.05)							18.8	20.1	14.2	16.4
	Standard Deviation							13.2	13.9	9.7	11.5
	CV							19.15	19.72	10.35	14.47
	Bartlett's X2							20.794	12.009	4.09	9.339
	P(Bartlett's X2)							0.144	0.527	0.905	0.809
	Replicate F							8.794	0.810	0.645	0.749
	Replicate Prob(F)							0.0001	0.4981	0.5938	0.5288
	Treatment F							3.865	4.908	2.275	17.289
	Treatment Prob(F)							0.0003	0.0001	0.0369	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed			
Pest Code	AMBTR	RANAB	CAPBP	TAROF			
Pest Scientific Name	Ambrosia trifi>	Ranunculus abo>	Capsella bursa>	Taraxacum offi>			
Pest Name	Giant ragweed	Smallflower bu>	Shepherd's pur>	Common dandelii>			
Crop Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	Jun-10-2010	Jun-10-2010	Jun-10-2010	Jun-10-2010			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%			
Number of Subsamples	1	1	1	1			
Days After First/Last Applic.	15 15	15 15	15 15	15 15			
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	15 DA-A			
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1			
Number of Decimals	0	0	0	0			
Trt Treatment	Form Form	Other Other	Appl				
No. Name	Conc Unit	Rate Rate	Unit Code	16			
				17			
				18			
				19			
15 2,4-D Ester	4 LBA/GAL	1 pt/a	A	100	83	99	88
15 Valor SX	51	2 oz/a	A				
15 Sharpen	2.85 LBA/GAL	0.75 oz/a	A				
15 MSO	100 %	0.8 qt/a					
16 2,4-D Ester	4 LBA/GAL	1 pt/a	A	100	78	99	88
16 Valor SX	51	2 oz/a	A				
16 Sharpen	2.85 LBA/GAL	1 oz/a	A				
16 MSO	100 %	0.8 qt/a					
LSD (P=.05)				10.9	17.0	16.9	14.7
Standard Deviation				7.6	11.7	11.8	10.3
CV				8.7	16.86	13.35	14.08
Bartlett's X2				14.134	5.692	29.88	15.584
P(Bartlett's X2)				0.292	0.931	0.008*	0.41
Replicate F				4.672	2.613	1.378	2.756
Replicate Prob(F)				0.0063	0.0717	0.2619	0.0560
Treatment F				11.331	5.351	2.374	5.954
Treatment Prob(F)				0.0001	0.0001	0.0133	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	ERICA	AMBTR	RANAB
Pest Scientific Name	Stellaria media	Conyza canadensis	Ambrosia trifida	Ranunculus abortivus
Pest Name	Common chickweed	Canada horseweed	Giant ragweed	Smallflower buttercup
Crop Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jun-10-2010	Jun-24-2010	Jun-24-2010	Jun-24-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	15 15	29 29	29 29	29 29
Trt-Eval Interval	15 DA-A	29 DA-A	29 DA-A	29 DA-A
Plant-Eval Interval	15 DP-1	29 DP-1	29 DP-1	29 DP-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	20	21	22	23
1	Roundup PowerMax	4.5 LBAE/GAL		22 oz/a		A	100	38	100	100
2	Sharpen	2.85 LBA/GAL		0.5 oz/a		A	100	81	60	50
2	MSO	100 %		0.8 qt/a						
3	Sharpen	2.85 LBA/GAL		0.75 oz/a		A	100	80	78	60
3	MSO	100 %		0.8 qt/a						
4	Sharpen	2.85 LBA/GAL		1 oz/a		A	93	88	64	53
4	MSO	100 %		0.8 qt/a						
5	Valor SX	51		2 oz/a		A	100	35	45	80
5	MSO	100 %		0.8 qt/a						
6	Valor SX	51		2 oz/a		A	100	86	88	69
6	Sharpen	2.85 LBA/GAL		0.5 oz/a		A				
6	MSO	100 %		0.8 qt/a						
7	Valor SX	51		2 oz/a		A	100	61	48	43
7	Sharpen	2.85 LBA/GAL		0.75 oz/a		A				
7	MSO	100 %		0.8 qt/a						
8	Valor SX	51		2 oz/a		A	100	75	93	65
8	Sharpen	2.85 LBA/GAL		1 oz/a		A				
8	MSO	100 %		0.8 qt/a						
9	2,4-D Ester	4 LBA/GAL		1 pt/a		A	96	53	83	90
10	Valor SX	51		2 oz/a		A	100	54	85	100
10	2,4-D Ester	4 LBA/GAL		1 pt/a		A				
11	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	88	100	96
11	Sharpen	2.85 LBA/GAL		0.5 oz/a		A				
11	MSO	100 %		0.8 qt/a						
12	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	96	80	95
12	Sharpen	2.85 LBA/GAL		0.75 oz/a		A				
12	MSO	100 %		0.8 qt/a						
13	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	88	90	96
13	Sharpen	2.85 LBA/GAL		1 oz/a		A				
13	MSO	100 %		0.8 qt/a						
14	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	81	85	93
14	Valor SX	51		2 oz/a		A				
14	Sharpen	2.85 LBA/GAL		0.5 oz/a		A				
14	MSO	100 %		0.8 qt/a						

Ohio State University Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	ERICA	AMBTR	RANAB
Pest Scientific Name	Stellaria media	Conyza canadensis	Ambrosia trifida	Ranunculus abortivus
Pest Name	Common chickweed	Canada horseweed	Giant ragweed	Smallflower buttercup
Crop Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jun-10-2010	Jun-24-2010	Jun-24-2010	Jun-24-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	15 15	29 29	29 29	29 29
Trt-Eval Interval	15 DA-A	29 DA-A	29 DA-A	29 DA-A
Plant-Eval Interval	15 DP-1	29 DP-1	29 DP-1	29 DP-1
Number of Decimals	0	0	0	0
Trt No.	20	21	22	23
Treatment Name				
Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit Code
15 2,4-D Ester	4 LBA/GAL	1 pt/a		A
15 Valor SX	51	2 oz/a		A
15 Sharpen	2.85 LBA/GAL	0.75 oz/a		A
15 MSO	100 %	0.8 qt/a		
16 2,4-D Ester	4 LBA/GAL	1 pt/a		A
16 Valor SX	51	2 oz/a		A
16 Sharpen	2.85 LBA/GAL	1 oz/a		A
16 MSO	100 %	0.8 qt/a		
LSD (P=.05)	7.0	23.4	21.8	14.1
Standard Deviation	4.9	16.4	15.3	9.8
CV	4.96	22.02	18.89	12.23
Bartlett's X2	1.326	11.271	11.274	10.162
P(Bartlett's X2)	0.515	0.733	0.506	0.516
Replicate F	3.182	0.644	2.194	3.323
Replicate Prob(F)	0.0328	0.5909	0.1018	0.0280
Treatment F	1.000	5.940	5.467	17.648
Treatment Prob(F)	0.4718	0.0001	0.0001	0.0001

Ohio State University Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed
Pest Code	CAPBP	TAROF	STEME
Pest Scientific Name	Capsella bursa>	Taraxacum offi>	Stellaria media
Pest Name	Shepherd's pur>	Common dandel>	Common chickwe>
Crop Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-24-2010	Jun-24-2010	Jun-24-2010
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Days After First/Last Applic.	29 29	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Unit Code	24	25	26
1	Roundup PowerMax	4.5 LBAE/GAL		22 oz/a		A	100	82	100
2	Sharpen	2.85 LBA/GAL		0.5 oz/a		A	100	41	100
2	MSO	100 %		0.8 qt/a					
3	Sharpen	2.85 LBA/GAL		0.75 oz/a		A	100	53	95
3	MSO	100 %		0.8 qt/a					
4	Sharpen	2.85 LBA/GAL		1 oz/a		A	100	40	95
4	MSO	100 %		0.8 qt/a					
5	Valor SX	51		2 oz/a		A	100	40	100
5	MSO	100 %		0.8 qt/a					
6	Valor SX	51		2 oz/a		A	94	58	100
6	Sharpen	2.85 LBA/GAL		0.5 oz/a		A			
6	MSO	100 %		0.8 qt/a					
7	Valor SX	51		2 oz/a		A	100	43	93
7	Sharpen	2.85 LBA/GAL		0.75 oz/a		A			
7	MSO	100 %		0.8 qt/a					
8	Valor SX	51		2 oz/a		A	100	53	100
8	Sharpen	2.85 LBA/GAL		1 oz/a		A			
8	MSO	100 %		0.8 qt/a					
9	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	63	96
10	Valor SX	51		2 oz/a		A	100	75	100
10	2,4-D Ester	4 LBA/GAL		1 pt/a		A			
11	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	74	100
11	Sharpen	2.85 LBA/GAL		0.5 oz/a		A			
11	MSO	100 %		0.8 qt/a					
12	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	72	100
12	Sharpen	2.85 LBA/GAL		0.75 oz/a		A			
12	MSO	100 %		0.8 qt/a					
13	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	63	100
13	Sharpen	2.85 LBA/GAL		1 oz/a		A			
13	MSO	100 %		0.8 qt/a					
14	2,4-D Ester	4 LBA/GAL		1 pt/a		A	100	60	100
14	Valor SX	51		2 oz/a		A			
14	Sharpen	2.85 LBA/GAL		0.5 oz/a		A			
14	MSO	100 %		0.8 qt/a					

Ohio State University Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed	
Pest Code	CAPBP	TAROF	STEME	
Pest Scientific Name	Capsella bursa>	Taraxacum offi>	Stellaria media	
Pest Name	Shepherd's pur>	Common dandel>	Common chickwe>	
Crop Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jun-24-2010	Jun-24-2010	Jun-24-2010	
Rating Type	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	
Number of Subsamples	1	1	1	
Days After First/Last Applic.	29 29	29 29	29 29	
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	
Number of Decimals	0	0	0	
Trt Treatment	Form Form	Other Other	Appl	
No. Name	Conc Unit	Rate Rate	Unit Code	
				24
				25
				26
15 2,4-D Ester	4 LBA/GAL	1 pt/a	A	100
15 Valor SX	51	2 oz/a	A	
15 Sharpen	2.85 LBA/GAL	0.75 oz/a	A	
15 MSO	100 %	0.8 qt/a		84
16 2,4-D Ester	4 LBA/GAL	1 pt/a	A	100
16 Valor SX	51	2 oz/a	A	
16 Sharpen	2.85 LBA/GAL	1 oz/a	A	
16 MSO	100 %	0.8 qt/a		74
LSD (P=.05)				4.5
Standard Deviation				3.2
CV				3.17
Bartlett's X2				0.0
P(Bartlett's X2)				.
Replicate F				0.978
Replicate Prob(F)				0.4119
Treatment F				0.978
Treatment Prob(F)				0.4932
				20.2
				14.1
				23.25
				15.629
				0.407
				6.148
				0.0014
				1.000
				0.4718

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Valor Sharpen Marestail Burndown

Title No. 2:

Trial ID: 10NTS8

Location: WESTERN BRANCH ENT E-1

Project ID: MD 99.03

Protocol ID: 10NTS8

Study Director: Anthony F. Dobbels

Investigator: Dr. Mark M. Loux

Sponsor Contact: Eric Ott, Valent

Pest Type

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

Pest Code

ERICA, Conyza canadensis, = US

AMBTR, Ambrosia trifida, = US

RANAB, Ranunculus abortivus, = US

CAPBP, Capsella bursa-pastoris, = US

TAROF, Taraxacum officinale, = US

STEME, Stellaria media, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

PHYDEF = phyto. deformation (cupping, epinasty, leaf wrap, wrinkling)

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

7 DP-1 = 1 May-26-2010

15 DP-1 = 1 May-26-2010

29 DP-1 = 1 May-26-2010