

Ohio State University Horticulture and Crop Science

Fall and Spring Winter Annual Weed Control in Soybeans

Title No. 2:
Trial ID: 10FALLSOY1 Protocol ID: 10FALLSOY1
Location: Study Director:
Project ID: Investigator: Dr. Mark M. Loux
Sponsor Contact:

General Trial Information

Investigator: Dr. Mark M. Loux

Trial Location

City: South Charleston
State/Prov.: Ohio
Postal Code: 45368
Country: USA

Personnel

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Pioneer 93Y20 Description: RR
BBCH Scale: BSOY Planting Date: Apr-29-2010
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: NORMAL normal Emergence Date: May-7-2010

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: THLSS Thlaspi sp.
Common Name: Pennycress

Pest 4 Type: W Code: SENGL Senecio glabellus
Common Name: Cressleaf groundsel

Site and Design

Plot Width, Unit: 6.67 FT Site Type: FIELD field
Plot Length, Unit: 30 FT Experimental Unit: 1 PLOT plot
Plot Area, Unit: 200.1 FT2 Tillage Type: NOTILL no-till
Replications: 3 Study Design: RACOB L Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Rate Unit	Tank Mix
1.	May-25-2010	Roundup Weathermax	4.5	AS	L	22	FL OZ/A	no

Soil Description

Description Name: F-10 West
% OM: 1.5 Texture: SIL silt loam
pH: 5.8 Soil Name: Crosby
CEC: 13 Fert. Level: G good
Soil Drainage: G good

Application Description

A
Application Date: Nov-24-2009
Time of Day: 2:00 P.M.
Application Method: SPRAY
Application Timing: FALL
Application Placement: BROFOL
Air Temperature, Unit: 53 F
% Relative Humidity: 70
Wind Velocity, Unit: 3 MPH
Wind Direction: S
Dew Presence (Y/N): N no
Soil Temperature, Unit: 48 F
Soil Moisture: WET
% Cloud Cover: 100

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Crop Stage At Each Application

A

Crop 1 Code, BBCH Scale: GLXMA BSOY

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale: LAMPU W
 Stage Majority, Percent: 19 100
 Diameter, Unit: 3 IN
 Height, Unit: 2 IN
 Height Minimum, Maximum: 1 2
 Density, Unit: 4 M2
 Pest 2 Code, Type, Scale: STEME W
 Stage Majority, Percent: 19 100
 Diameter, Unit: 6 IN
 Height, Unit: 1 IN
 Height Minimum, Maximum: 1 2
 Density, Unit: 2 M2
 Pest 3 Code, Type, Scale: THLSS W
 Stage Majority, Percent: 19 100
 Diameter, Unit: 3 IN
 Height, Unit: 0.5 IN
 Height Minimum, Maximum: 0.5 1
 Pest 4 Code, Type, Scale: SENGL W
 Stage Majority, Percent: 19 100
 Diameter, Unit: 3 IN
 Height, Unit: 1 IN
 Height Minimum, Maximum: 0.5 1
 Density, Unit: 2 M2

Application Equipment

A

Appl. Equipment: 6 foot boom
 Equipment Type: SPRBAC
 Operating Pressure, Unit: 53 PSI
 Nozzle Type: TEEJET DG
 Nozzle Size: 8002
 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: 20 GPA
 Mix Size, Unit: 0.33 Gallons
 Propellant: CO2

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	VERAG	ERYRE
Pest Scientific Name	Stellaria media	Lamium purpure>	Veronica agres>	Erysimum repa>
Pest Name	Common chickwe>	Purple deadnet>	Field speedwell	Bushy wallflow>
Rating Date	Apr-2-2010	Apr-2-2010	Apr-2-2010	Apr-2-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	129 129	129 129	129 129	129 129
Trt-Eval Interval	129 DA-A	129 DA-A	129 DA-A	129 DA-A
Plant-Eval Interval	-27 DP-1	-27 DP-1	-27 DP-1	-27 DP-1
Days After Emergence	-35 DE	-35 DE	-35 DE	-35 DE
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	1	2	3	4
1	UTC						0	0	0	0
2	Autumn	10		0.3 oz/a		A	100	72	73	95
	2,4-D Ester	4 LBA/GAL		1 pt/a						
	2 COC	100 %		0.8 qt/a						
	2 N-PAK AMS	100 %		2 qt/a						
3	Autumn	10		0.3 oz/a		A	100	75	100	98
	3 Roundup PowerMax	4.5 LBAE/GAL		0.67 pt/a						
	3 COC	100 %		0.8 qt/a						
	3 N-PAK AMS	100 %		2 qt/a						
4	IMS+TCM	51		0.5 oz/a		A	100	87	98	100
	4,2,4-D Ester	4 LBA/GAL		1 pt/a						
	4 COC	100 %		0.8 qt/a						
	4 N-PAK AMS	100 %		2 qt/a						
5	IMS+TCM	51		0.5 oz/a		A	100	90	90	100
	5 Roundup PowerMax	4.5 LBAE/GAL		0.67 pt/a						
	5 COC	100 %		0.8 qt/a						
	5 N-PAK AMS	100 %		2 qt/a						
6	IMS+TCM	51		0.5 oz/a		A	100	73	100	100
	6 Sencor DF	75 %AW/W		6 oz/a						
	6 COC	100 %		0.8 qt/a						
	6 N-PAK AMS	100 %		2 qt/a						
7	CANOPY EX			1 oz		A	98	96	83	100
	7 Classic	25 %AW/W		1 oz/a						
	7 Express	50 %AW/W		0.15 oz/a						
	7,2,4-D Ester	4 LBA/GAL		1 pt/a						
	7 COC	100 %		0.8 qt/a						
8	F9016-1	70		3.2 oz/a		A	100	100	100	100
	8 Rage D-Tech	4		12 oz/a						
	8 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a						
	8 N-PAK AMS	100 %		2 qt/a						
9	F9016-1	70		3.8 oz/a		A	100	100	100	100
	9 Rage D-Tech	4		12 oz/a						
	9 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a						
	9 N-PAK AMS	100 %		2 qt/a						
10	Basis	75		0.5 oz/a		A	100	100	99	100
	10 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a						
	10,2,4-D Ester	4 LBA/GAL		1 pt/a						
	10 N-PAK AMS	100 %		2 qt/a						
11	Valor XLT			3 oz/a		A	100	100	100	100
	11 Valor SX	51		1.76 oz/a						
	11 Classic	25 %AW/W		1.24 oz/a						

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	VERAG	ERYRE
Pest Scientific Name	Stellaria media	Lamium purpure>	Veronica agres>	Erysimum repan>
Pest Name	Common chickwe>	Purple deadnet>	Field speedwell	Bushy wallflow>
Rating Date	Apr-2-2010	Apr-2-2010	Apr-2-2010	Apr-2-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	129 129	129 129	129 129	129 129
Trt-Eval Interval	129 DA-A	129 DA-A	129 DA-A	129 DA-A
Plant-Eval Interval	-27 DP-1	-27 DP-1	-27 DP-1	-27 DP-1
Days After Emergence	-35 DE	-35 DE	-35 DE	-35 DE
Number of Decimals	0	0	0	0

Trt	Treatment No. Name	Form Conc Unit	Form Rate	Other Rate	Other Unit	Appl Code	1	2	3	4
11	Roundup PowerMax	4.5 LBAE/GAL	22 oz/a							
11	2,4-D Ester	4 LBA/GAL	1 pt/a							
11	NIS	100 %	6.4 oz/a							
12	Roundup PowerMax	4.5 LBAE/GAL	22 oz/a		A		100	88	100	100
12	2,4-D Ester	4 LBA/GAL	1 pt/a							
12	NIS	100 %	6.4 oz/a							
LSD (P=.05)							1.2	15.4	13.2	4.5
Standard Deviation							0.7	9.1	7.8	2.7
CV							0.79	11.16	8.95	2.93
Bartlett's X2							0.0	6.75	12.024	2.002
P(Bartlett's X2)							.	0.345	0.017*	0.157
Replicate F							1.000	6.263	1.398	0.681
Replicate Prob(F)							0.3840	0.0070	0.2683	0.5163
Treatment F							4719.326	28.097	40.829	347.115
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	ERICA	ERYRE
Pest Scientific Name	Stellaria media	Lamium purpure>	Conyza canadens>	Erysimum repans>
Pest Name	Common chickwe>	Purple deadnet>	Canada horsewe>	Bushy wallflow>
Rating Date	Apr-28-2010	Apr-28-2010	Apr-28-2010	Apr-28-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	155 155	155 155	155 155	155 155
Trt-Eval Interval	155 DA-A	155 DA-A	155 DA-A	155 DA-A
Plant-Eval Interval	-1 DP-1	-1 DP-1	-1 DP-1	-1 DP-1
Days After Emergence	-9 DE-	-9 DE-	-9 DE-	-9 DE-
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	5	6	7	8	
1	UTC							0	0	0	0
2	Autumn 2,4-D Ester	10	LBA/GAL	0.3	oz/a	A	100	52	100	100	
	2 COC	100	%	0.8	qt/a						
	2 N-PAK AMS	100	%	2	qt/a						
3	Autumn Roundup PowerMax	10	LBAE/GAL	0.3	oz/a	A	100	72	88	100	
	3 COC	100	%	0.67	pt/a						
	3 N-PAK AMS	100	%	0.8	qt/a						
4	IMS+TCM 2,4-D Ester	51	LBA/GAL	0.5	oz/a	A	100	82	100	100	
	4 COC	100	%	1	pt/a						
	4 N-PAK AMS	100	%	0.8	qt/a						
5	IMS+TCM Roundup PowerMax	51	LBAE/GAL	0.5	oz/a	A	100	83	100	100	
	5 COC	100	%	0.67	pt/a						
	5 N-PAK AMS	100	%	0.8	qt/a						
6	IMS+TCM Sencor DF	51	%AW/W	0.5	oz/a	A	100	70	100	100	
	6 COC	75	%	6	oz/a						
	6 N-PAK AMS	100	%	0.8	qt/a						
7	CANOPY EX Classic			1	oz	A	99	97	97	100	
	7 Express	25	%AW/W	1	oz/a						
	7 2,4-D Ester	50	%AW/W	0.15	oz/a						
	7 COC	4	LBA/GAL	1	pt/a						
		100	%	0.8	qt/a						
8	F9016-1 Rage D-Tech	70		3.2	oz/a	A	100	100	100	100	
	8 Roundup PowerMax	4		12	oz/a						
	8 N-PAK AMS	4.5	LBAE/GAL	22	oz/a						
		100	%	2	qt/a						
9	F9016-1 Rage D-Tech	70		3.8	oz/a	A	100	100	100	100	
	9 Roundup PowerMax	4		12	oz/a						
	9 N-PAK AMS	4.5	LBAE/GAL	22	oz/a						
		100	%	2	qt/a						
10	Basis Roundup PowerMax	75	LBAE/GAL	0.5	oz/a	A	100	100	100	100	
	10 2,4-D Ester	4.5	LBAE/GAL	22	oz/a						
	10 N-PAK AMS	4	LBA/GAL	1	pt/a						
		100	%	2	qt/a						
11	Valor XLT			3	oz/a	A	100	100	100	100	
	11 Valor SX	51		1.76	oz/a						
	11 Classic	25	%AW/W	1.24	oz/a						

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Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	STEME	LAMPU	ERICA	ERYRE							
Pest Scientific Name	Stellaria media	Lamium purpure>	Conyza canadens>	Erysimum repans>							
Pest Name	Common chickwe>	Purple deadnet>	Canada horsewe>	Bushy wallflow>							
Rating Date	Apr-28-2010	Apr-28-2010	Apr-28-2010	Apr-28-2010							
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO							
Rating Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Days After First/Last Applic.	155 155	155 155	155 155	155 155							
Trt-Eval Interval	155 DA-A	155 DA-A	155 DA-A	155 DA-A							
Plant-Eval Interval	-1 DP-1	-1 DP-1	-1 DP-1	-1 DP-1							
Days After Emergence	-9 DE-	-9 DE-	-9 DE-	-9 DE-							
Number of Decimals	0	0	0	0							
Trt	Treatment	Form	Form	Other	Other	Appl					
No.	Name	Conc	Unit	Rate	Rate	Unit	Code	5	6	7	8
11	Roundup PowerMax	4.5	LBAE/GAL	22	oz/a						
11	2,4-D Ester	4	LBA/GAL	1	pt/a						
11	NIS	100	%	6.4	oz/a						
12	Roundup PowerMax	4.5	LBAE/GAL	22	oz/a	A		100	93	95	100
12	2,4-D Ester	4	LBA/GAL	1	pt/a						
12	NIS	100	%	6.4	oz/a						
LSD (P=.05)								0.8	15.0	7.7	0.0
Standard Deviation								0.5	8.8	4.5	0.0
CV								0.55	11.2	5.04	0.0
Bartlett's X2								0.0	7.529	3.691	0.0
P(Bartlett's X2)								.	0.275	0.158	.
Replicate F								1.000	5.766	0.632	0.000
Replicate Prob(F)								0.3840	0.0097	0.5407	1.0000
Treatment F								9982.819	32.847	118.888	0.000
Treatment Prob(F)								0.0001	0.0001	0.0001	1.0000

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	VERAG	AMBTR	LAMPU	STEME	AMBTR						
Pest Scientific Name	Veronica agres>	Ambrosia trifi>	Lamium purpure>	Stellaria media	Ambrosia trifi>						
Pest Name	Field speedwell	Giant ragweed	Purple deadnet>	Common chickwe>	Giant ragweed						
Rating Date	Apr-28-2010	Apr-28-2010	May-12-2010	May-12-2010	May-12-2010						
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1						
Days After First/Last Applic.	155	155	169	169	169						
Trt-Eval Interval	155 DA-A	155 DA-A	169 DA-A	169 DA-A	169 DA-A						
Plant-Eval Interval	-1 DP-1	-1 DP-1	13 DP-1	13 DP-1	13 DP-1						
Days After Emergence	-9 DE-	-9 DE-	5 DE-1	5 DE-1	5 DE-1						
Number of Decimals	0	0	0	0	0						
Trt	Treatment	Form	Form	Other	Other	Appl	9	10	11	12	13
No.	Name	Conc	Unit	Rate	Rate	Unit Code					
1	UTC						0	0	0	0	0
2	Autumn	10		0.3 oz/a		A	68	7	40	100	0
	2,4-D Ester	4	LBA/GAL	1 pt/a							
	2 COC	100	%	0.8 qt/a							
	2 N-PAK AMS	100	%	2 qt/a							
3	Autumn	10		0.3 oz/a		A	98	40	77	100	20
	3 Roundup PowerMax	4.5	LB AE/GAL	0.67 pt/a							
	3 COC	100	%	0.8 qt/a							
	3 N-PAK AMS	100	%	2 qt/a							
4	IMS+TCM	51		0.5 oz/a		A	99	57	75	100	50
	4,4-D Ester	4	LBA/GAL	1 pt/a							
	4 COC	100	%	0.8 qt/a							
	4 N-PAK AMS	100	%	2 qt/a							
5	IMS+TCM	51		0.5 oz/a		A	95	50	82	100	48
	5 Roundup PowerMax	4.5	LB AE/GAL	0.67 pt/a							
	5 COC	100	%	0.8 qt/a							
	5 N-PAK AMS	100	%	2 qt/a							
6	IMS+TCM	51		0.5 oz/a		A	100	67	78	100	58
	6 Sencor DF	75	%AW/W	6 oz/a							
	6 COC	100	%	0.8 qt/a							
	6 N-PAK AMS	100	%	2 qt/a							
7	CANOPY EX			1 oz		A	77	70	97	95	72
	7 Classic	25	%AW/W	1 oz/a							
	7 Express	50	%AW/W	0.15 oz/a							
	7,2,4-D Ester	4	LBA/GAL	1 pt/a							
	7 COC	100	%	0.8 qt/a							
8	F9016-1	70		3.2 oz/a		A	100	62	100	100	75
	8 Rage D-Tech	4		12 oz/a							
	8 Roundup PowerMax	4.5	LB AE/GAL	22 oz/a							
	8 N-PAK AMS	100	%	2 qt/a							
9	F9016-1	70		3.8 oz/a		A	100	57	100	100	66
	9 Rage D-Tech	4		12 oz/a							
	9 Roundup PowerMax	4.5	LB AE/GAL	22 oz/a							
	9 N-PAK AMS	100	%	2 qt/a							
10	Basis	75		0.5 oz/a		A	98	53	100	100	53
	10 Roundup PowerMax	4.5	LB AE/GAL	22 oz/a							
	10,2,4-D Ester	4	LBA/GAL	1 pt/a							
	10 N-PAK AMS	100	%	2 qt/a							
11	Valor XLT			3 oz/a		A	100	52	100	100	50
	11 Valor SX	51		1.76 oz/a							
	11 Classic	25	%AW/W	1.24 oz/a							

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Pest Code	VERAG	AMBTR	LAMPU	STEME	AMBTR					
Pest Scientific Name	Veronica agres>	Ambrosia trifi>	Lamium purpure>	Stellaria media	Ambrosia trifi>					
Pest Name	Field speedwell	Giant ragweed	Purple deadnet>	Common chickwe>	Giant ragweed					
Rating Date	Apr-28-2010	Apr-28-2010	May-12-2010	May-12-2010	May-12-2010					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	155 155	155 155	169 169	169 169	169 169					
Trt-Eval Interval	155 DA-A	155 DA-A	169 DA-A	169 DA-A	169 DA-A					
Plant-Eval Interval	-1 DP-1	-1 DP-1	13 DP-1	13 DP-1	13 DP-1					
Days After Emergence	-9 DE-	-9 DE-	5 DE-1	5 DE-1	5 DE-1					
Number of Decimals	0	0	0	0	0					
Trt Treatment No. Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit Code	9	10	11	12	13
11 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a							
11 2,4-D Ester	4 LBA/GAL		1 pt/a							
11 NIS	100 %		6.4 oz/a							
12 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a		A	100	13	100	90	17
12 2,4-D Ester	4 LBA/GAL		1 pt/a							
12 NIS	100 %		6.4 oz/a							
LSD (P=.05)			19.4	28.8				13.6	9.1	28.6
Standard Deviation			11.4	17.0				8.0	5.4	16.9
CV			13.26	38.74				10.13	5.95	39.79
Bartlett's X2			21.672	11.321				2.084	0.874	12.094
P(Bartlett's X2)			0.001*	0.333				0.72	0.35	0.208
Replicate F			1.863	2.373				4.331	1.941	0.444
Replicate Prob(F)			0.1789	0.1166				0.0259	0.1673	0.6468
Treatment F			19.443	5.934				43.830	84.922	7.419
Treatment Prob(F)			0.0001	0.0002				0.0001	0.0001	0.0001

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Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	14	15	16	17
1	UTC						0	0	0	0
2	Autumn 2,4-D Ester	10	LBA/GAL	0.3	oz/a	A	0	0	0	10
	2 COC	100	%	0.8	qt/a					
	2 N-PAK AMS	100	%	2	qt/a					
3	Autumn 3 Roundup PowerMax	10	LBAE/GAL	0.3	oz/a	A	78	92	77	23
	3 COC	100	%	0.67	pt/a					
	3 N-PAK AMS	100	%	0.8	qt/a					
4	IMS+TCM 2,4-D Ester	51	LBA/GAL	0.5	oz/a	A	92	100	90	63
	4 COC	100	%	0.8	qt/a					
	4 N-PAK AMS	100	%	2	qt/a					
5	IMS+TCM 5 Roundup PowerMax	51	LBAE/GAL	0.5	oz/a	A	83	100	87	70
	5 COC	100	%	0.67	pt/a					
	5 N-PAK AMS	100	%	0.8	qt/a					
6	IMS+TCM 6 Sencor DF	51	%AW/W	0.5	oz/a	A	93	100	100	83
	6 COC	100	%	6	oz/a					
	6 N-PAK AMS	100	%	0.8	qt/a					
7	CANOPY EX 7 Classic	25	%AW/W	1	oz	A	88	100	78	100
	7 Express	50	%AW/W	0.15	oz/a					
	7 2,4-D Ester	4	LBA/GAL	1	pt/a					
	7 COC	100	%	0.8	qt/a					
8	F9016-1 8 Rage D-Tech	70		3.2	oz/a	A	100	100	100	100
	8 Roundup PowerMax	4		12	oz/a					
	8 N-PAK AMS	4.5	LBAE/GAL	22	oz/a					
		100	%	2	qt/a					
9	F9016-1 9 Rage D-Tech	70		3.8	oz/a	A	100	100	100	100
	9 Roundup PowerMax	4		12	oz/a					
	9 N-PAK AMS	4.5	LBAE/GAL	22	oz/a					
		100	%	2	qt/a					
10	Basis 10 Roundup PowerMax	75	LBAE/GAL	0.5	oz/a	A	98	100	93	100
	10 2,4-D Ester	4	LBA/GAL	22	oz/a					
	10 N-PAK AMS	100	%	1	pt/a					
				2	qt/a					
11	Valor XLT 11 Valor SX	51	%AW/W	3	oz/a	A	100	100	100	100
	11 Classic	25	%AW/W	1.76	oz/a					
				1.24	oz/a					

Ohio State University Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	ERYRE	VERAG	CAPBP
Pest Scientific Name	Conyza canadens>	Erysimum repan>	Veronica agres>	Capsella bursa>
Pest Name	Canada horsewe>	Bushy wallflow>	Field speedwell	Shepherd's pur>
Rating Date	May-12-2010	May-12-2010	May-12-2010	May-12-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	169 169	169 169	169 169	169 169
Trt-Eval Interval	169 DA-A	169 DA-A	169 DA-A	169 DA-A
Plant-Eval Interval	13 DP-1	13 DP-1	13 DP-1	13 DP-1
Days After Emergence	5 DE-1	5 DE-1	5 DE-1	5 DE-1
Number of Decimals	0	0	0	0
Trt Treatment No. Name	Form Form Conc Unit	Other Other Rate Rate	Appl Unit Code	
				14 15 16 17
11 Roundup PowerMax	4.5 LBAE/GAL	22 oz/a		
11 2,4-D Ester	4 LBA/GAL	1 pt/a		
11 NIS	100 %	6.4 oz/a		
12 Roundup PowerMax	4.5 LBAE/GAL	22 oz/a	A	23 100 72 10
12 2,4-D Ester	4 LBA/GAL	1 pt/a		
12 NIS	100 %	6.4 oz/a		
LSD (P=.05)		21.2	1.4	18.3 24.1
Standard Deviation		12.5	0.8	10.8 14.2
CV		17.5	1.01	14.44 22.36
Bartlett's X2		9.044	0.0	1.667 2.357
P(Bartlett's X2)		0.171	.	0.893 0.798
Replicate F		2.207	1.000	5.894 3.458
Replicate Prob(F)		0.1349	0.3840	0.0089 0.0513
Treatment F		29.800	6461.364	33.902 25.103
Treatment Prob(F)		0.0001	0.0001	0.0001 0.0001

Ohio State University Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed	W Weed						
Pest Code	CHEAL	LAMPU	STEME	AMBTR						
Pest Scientific Name	Chenopodium al>	Lamium purple>	Stellaria media	Ambrosia trifi>						
Pest Name	Common lambsqu>	Purple deadnet>	Common chickwe>	Giant ragweed						
Rating Date	May-12-2010	May-24-2010	May-24-2010	May-24-2010						
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%	%						
Number of Subsamples	1	1	1	1						
Days After First/Last Applic.	169	181	181	181						
Trt-Eval Interval	169 DA-A	181 DA-A	181 DA-A	181 DA-A						
Plant-Eval Interval	13 DP-1	25 DP-1	25 DP-1	25 DP-1						
Days After Emergence	5 DE-1	17 DE-	17 DE-	17 DE-						
Number of Decimals	0	0	0	0						
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	18	19	20	21
1	UTC						0	3	0	0
2	Autumn	10		0.3 oz/a		A	10	72	100	10
	2,4-D Ester	4 LBA/GAL		1 pt/a						
	2 COC	100 %		0.8 qt/a						
	2 N-PAK AMS	100 %		2 qt/a						
3	Autumn	10		0.3 oz/a		A	0	100	100	35
	3 Roundup PowerMax	4.5 LBAE/GAL		0.67 pt/a						
	3 COC	100 %		0.8 qt/a						
	3 N-PAK AMS	100 %		2 qt/a						
4	IMS+TCM	51		0.5 oz/a		A	63	80	100	37
	4,4-D Ester	4 LBA/GAL		1 pt/a						
	4 COC	100 %		0.8 qt/a						
	4 N-PAK AMS	100 %		2 qt/a						
5	IMS+TCM	51		0.5 oz/a		A	55	87	100	13
	5 Roundup PowerMax	4.5 LBAE/GAL		0.67 pt/a						
	5 COC	100 %		0.8 qt/a						
	5 N-PAK AMS	100 %		2 qt/a						
6	IMS+TCM	51		0.5 oz/a		A	87	92	100	58
	6 Sencor DF	75 %AW/W		6 oz/a						
	6 COC	100 %		0.8 qt/a						
	6 N-PAK AMS	100 %		2 qt/a						
7	CANOPY EX			1 oz		A	100	100	92	72
	7 Classic	25 %AW/W		1 oz/a						
	7 Express	50 %AW/W		0.15 oz/a						
	7,2,4-D Ester	4 LBA/GAL		1 pt/a						
	7 COC	100 %		0.8 qt/a						
8	F9016-1	70		3.2 oz/a		A	100	100	100	81
	8 Rage D-Tech	4		12 oz/a						
	8 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a						
	8 N-PAK AMS	100 %		2 qt/a						
9	F9016-1	70		3.8 oz/a		A	100	100	100	60
	9 Rage D-Tech	4		12 oz/a						
	9 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a						
	9 N-PAK AMS	100 %		2 qt/a						
10	Basis	75		0.5 oz/a		A	85	100	100	50
	10 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a						
	10,2,4-D Ester	4 LBA/GAL		1 pt/a						
	10 N-PAK AMS	100 %		2 qt/a						
11	Valor XLT			3 oz/a		A	100	100	100	68
	11 Valor SX	51		1.76 oz/a						
	11 Classic	25 %AW/W		1.24 oz/a						

Ohio State University Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	LAMPU	STEME	AMBTR
Pest Scientific Name	Chenopodium al>	Lamium purpure>	Stellaria media	Ambrosia trifi>
Pest Name	Common lambsqu>	Purple deadnet>	Common chickwe>	Giant ragweed
Rating Date	May-12-2010	May-24-2010	May-24-2010	May-24-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	169 169	181 181	181 181	181 181
Trt-Eval Interval	169 DA-A	181 DA-A	181 DA-A	181 DA-A
Plant-Eval Interval	13 DP-1	25 DP-1	25 DP-1	25 DP-1
Days After Emergence	5 DE-1	17 DE-	17 DE-	17 DE-
Number of Decimals	0	0	0	0
Trt Treatment No. Name	Form Form Conc Unit	Other Other Rate Rate	Appl Unit Code	
				18 19 20 21
11 Roundup PowerMax	4.5 LBAE/GAL	22 oz/a		
11 2,4-D Ester	4 LBA/GAL	1 pt/a		
11 NIS	100 %	6.4 oz/a		
12 Roundup PowerMax	4.5 LBAE/GAL	22 oz/a	A	0 33 33 0
12 2,4-D Ester	4 LBA/GAL	1 pt/a		
12 NIS	100 %	6.4 oz/a		
LSD (P=.05)		28.6	35.9	28.8 31.9
Standard Deviation		16.8	21.1	17.0 18.8
CV		28.74	26.27	19.9 46.7
Bartlett's X2		5.738	5.861	2.954 7.081
P(Bartlett's X2)		0.22	0.21	0.086 0.629
Replicate F		1.268	0.576	1.262 0.034
Replicate Prob(F)		0.3032	0.5708	0.3027 0.9663
Treatment F		20.416	6.598	11.295 7.039
Treatment Prob(F)		0.0001	0.0001	0.0001 0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	ERYRE	VERAG	CAPBP
Pest Scientific Name	Conyza canadensis	Erysimum repens	Veronica agrestis	Capsella bursa-pastoris
Pest Name	Canada horseweed	Bushy wallflower	Field speedwell	Shepherd's purse
Rating Date	May-24-2010	May-24-2010	May-24-2010	May-24-2010
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	181 181	181 181	181 181	181 181
Trt-Eval Interval	181 DA-A	181 DA-A	181 DA-A	181 DA-A
Plant-Eval Interval	25 DP-1	25 DP-1	25 DP-1	25 DP-1
Days After Emergence	17 DE-	17 DE-	17 DE-	17 DE-
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	22	23	24	25
1	UTC						0	0	0	0
2	Autumn 2,4-D Ester	10	LBA/GAL	0.3 oz/a	1 pt/a	A	40	3	0	30
2	COC	100 %		0.8 qt/a						
2	N-PAK AMS	100 %		2 qt/a						
3	Autumn Roundup PowerMax	10	LBAE/GAL	0.3 oz/a	0.67 pt/a	A	40	93	77	10
3	COC	100 %		0.8 qt/a						
3	N-PAK AMS	100 %		2 qt/a						
4	IMS+TCM 2,4-D Ester	51	LBA/GAL	0.5 oz/a	1 pt/a	A	83	100	100	60
4	COC	100 %		0.8 qt/a						
4	N-PAK AMS	100 %		2 qt/a						
5	IMS+TCM Roundup PowerMax	51	LBAE/GAL	0.5 oz/a	0.67 pt/a	A	77	100	93	67
5	COC	100 %		0.8 qt/a						
5	N-PAK AMS	100 %		2 qt/a						
6	IMS+TCM Sencor DF	51	%AW/W	0.5 oz/a	6 oz/a	A	85	100	100	73
6	COC	100 %		0.8 qt/a						
6	N-PAK AMS	100 %		2 qt/a						
7	CANOPY EX Classic		%AW/W	1 oz	1 oz/a	A	93	100	83	100
7	Express		%AW/W	0.15 oz/a						
7	2,4-D Ester		LBA/GAL	1 pt/a						
7	COC	100 %		0.8 qt/a						
8	F9016-1 Rage D-Tech	70		3.2 oz/a	12 oz/a	A	100	100	100	100
8	Roundup PowerMax	4	LBAE/GAL	22 oz/a						
8	N-PAK AMS	100 %		2 qt/a						
9	F9016-1 Rage D-Tech	70		3.8 oz/a	12 oz/a	A	100	100	100	100
9	Roundup PowerMax	4	LBAE/GAL	22 oz/a						
9	N-PAK AMS	100 %		2 qt/a						
10	Basis Roundup PowerMax	75	LBAE/GAL	0.5 oz/a	22 oz/a	A	83	100	70	100
10	2,4-D Ester		LBA/GAL	1 pt/a						
10	N-PAK AMS	100 %		2 qt/a						
11	Valor XLT			3 oz/a		A	100	100	100	100
11	Valor SX	51		1.76 oz/a						
11	Classic		%AW/W	1.24 oz/a						

Ohio State University Horticulture and Crop Science

Pest Type	W Weed	W Weed	W Weed	W Weed					
Pest Code	ERICA	ERYRE	VERAG	CAPBP					
Pest Scientific Name	Conyza canadens>	Erysimum repan>	Veronica agres>	Capsella bursa>					
Pest Name	Canada horsewe>	Bushy wallflow>	Field speedwell	Shepherd's pur>					
Rating Date	May-24-2010	May-24-2010	May-24-2010	May-24-2010					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%					
Number of Subsamples	1	1	1	1					
Days After First/Last Applic.	181 181	181 181	181 181	181 181					
Trt-Eval Interval	181 DA-A	181 DA-A	181 DA-A	181 DA-A					
Plant-Eval Interval	25 DP-1	25 DP-1	25 DP-1	25 DP-1					
Days After Emergence	17 DE-	17 DE-	17 DE-	17 DE-					
Number of Decimals	0	0	0	0					
Trt Treatment No. Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit Code	22	23	24	25
11 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a						
11 2,4-D Ester	4 LBA/GAL		1 pt/a						
11 NIS	100 %		6.4 oz/a						
12 Roundup PowerMax	4.5 LBAE/GAL		22 oz/a		A	0	1	0	0
12 2,4-D Ester	4 LBA/GAL		1 pt/a						
12 NIS	100 %		6.4 oz/a						
LSD (P=.05)			24.7			6.5		25.4	18.8
Standard Deviation			14.5			3.8		15.0	11.1
CV			21.75			5.11		21.89	17.99
Bartlett's X2			3.408			0.874		4.633	1.451
P(Bartlett's X2)			0.756			0.35		0.201	0.694
Replicate F			3.518			1.489		0.973	3.861
Replicate Prob(F)			0.0481			0.2495		0.3936	0.0373
Treatment F			19.832			403.289		24.120	41.655
Treatment Prob(F)			0.0001			0.0001		0.0001	0.0001

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Pest Type	W Weed
Pest Code	CHEAL
Pest Scientific Name	Chenopodium al-
Pest Name	Common lambsqu-
Rating Date	May-24-2010
Rating Type	CONTRO
Rating Unit	%
Number of Subsamples	1
Days After First/Last Applic.	181 181
Trt-Eval Interval	181 DA-A
Plant-Eval Interval	25 DP-1
Days After Emergence	17 DE-
Number of Decimals	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	26
1	UTC					A	0
2	Autumn 2,4-D Ester	10	LBA/GAL	0.3	oz/a	A	17
2	COC	100	%	0.8	qt/a		
2	N-PAK AMS	100	%	2	qt/a		
3	Autumn Roundup PowerMax	10	LBAE/GAL	0.3	oz/a	A	10
3	COC	100	%	0.8	qt/a		
3	N-PAK AMS	100	%	2	qt/a		
4	IMS+TCM 2,4-D Ester	51	LBA/GAL	0.5	oz/a	A	63
4	COC	100	%	0.8	qt/a		
4	N-PAK AMS	100	%	2	qt/a		
5	IMS+TCM Roundup PowerMax	51	LBAE/GAL	0.5	oz/a	A	60
5	COC	100	%	0.8	qt/a		
5	N-PAK AMS	100	%	2	qt/a		
6	IMS+TCM Sencor DF	51	%AW/W	0.5	oz/a	A	75
6	COC	100	%	0.8	qt/a		
6	N-PAK AMS	100	%	2	qt/a		
7	CANOPY EX Classic		%AW/W	1	oz	A	100
7	Express	25	%AW/W	0.15	oz/a		
7	2,4-D Ester	50	%AW/W	1	pt/a		
7	COC	100	%	0.8	qt/a		
8	F9016-1 Rage D-Tech	70		3.2	oz/a	A	100
8	Roundup PowerMax	4	LBAE/GAL	12	oz/a		
8	N-PAK AMS	4.5	LBAE/GAL	22	oz/a		
8	N-PAK AMS	100	%	2	qt/a		
9	F9016-1 Rage D-Tech	70		3.8	oz/a	A	100
9	Roundup PowerMax	4	LBAE/GAL	12	oz/a		
9	N-PAK AMS	4.5	LBAE/GAL	22	oz/a		
9	N-PAK AMS	100	%	2	qt/a		
10	Basis Roundup PowerMax	75	LBAE/GAL	0.5	oz/a	A	77
10	2,4-D Ester	4.5	LBAE/GAL	22	oz/a		
10	N-PAK AMS	4	LBA/GAL	1	pt/a		
10	N-PAK AMS	100	%	2	qt/a		
11	Valor XLT			3	oz/a	A	100
11	Valor SX	51		1.76	oz/a		
11	Classic	25	%AW/W	1.24	oz/a		

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Pest Type	W Weed
Pest Code	CHEAL
Pest Scientific Name	Chenopodium al>
Pest Name	Common lambsqu>
Rating Date	May-24-2010
Rating Type	CONTRO
Rating Unit	%
Number of Subsamples	1
Days After First/Last Applic.	181 181
Trt-Eval Interval	181 DA-A
Plant-Eval Interval	25 DP-1
Days After Emergence	17 DE-
Number of Decimals	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate	Appl Unit	Code	
11	Roundup PowerMax	4.5	LBAE/GAL	22	oz/a			26
11	2,4-D Ester	4	LBA/GAL	1	pt/a			
11	NIS	100	%	6.4	oz/a			
12	Roundup PowerMax	4.5	LBAE/GAL	22	oz/a	A		0
12	2,4-D Ester	4	LBA/GAL	1	pt/a			
12	NIS	100	%	6.4	oz/a			

LSD (P=.05)	25.7
Standard Deviation	15.1
CV	25.75
Bartlett's X2	3.384
P(Bartlett's X2)	0.641
Replicate F	2.632
Replicate Prob(F)	0.0980
Treatment F	22.214
Treatment Prob(F)	0.0001

Ohio State University Horticulture and Crop Science

Fall and Spring Winter Annual Weed Control in Soybeans

Title No. 2:
Trial ID: 10FALLSOY1 Protocol ID: 10FALLSOY1
Location: Study Director:
Project ID: Investigator: Dr. Mark M. Loux
Sponsor Contact:

Pest Type

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

Pest Code

STEME, Stellaria media, = US
LAMPU, Lamium purpureum, = US
VERAG, Veronica agrestis, = US
ERYRE, Erysimum repandum, = US
ERICA, Conyza canadensis, = US
AMBTR, Ambrosia trifida, = US
CAPBP, Capsella bursa-pastoris, = US
CHEAL, Chenopodium album, = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

-27 DP-1 = 1 Apr-29-2010
-1 DP-1 = 1 Apr-29-2010
13 DP-1 = 1 Apr-29-2010
25 DP-1 = 1 Apr-29-2010