

Ohio State University Horticulture and Crop Science

SHARPEN PRE WITH SPARTEN CLASSIC CADET POST, AND V-10206 POST APP EFFICACY

Title No. 2:

Trial ID: 10POS2 Protocol ID: 10POS2
 Location: Western Branch F-8 Study Director: Bryan Reeb
 Project ID: 10POS2 Investigator: Dr. Mark M. Loux
 Sponsor Contact: ERIC OTT, VALENT; JOSEPH REED, FMC

General Trial Information

Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Trial Location

City: South Charleston **Latitude of LL Corner** °: 39.86012 N
State/Prov.: Ohio **Longitude of LL Corner** °: 83.6707 W
Postal Code: 45368 **Altitude of LL Corner, Unit:** 1077.00 FT
Country: USA

Personnel

Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean	Description: RR
Variety: Pioneer 93Y20	Planting Date: May-6-2010
BBCH Scale: BSOY	Rate, Unit: 196000 S/A
Planting Method: SEEDED seeded	
Depth, Unit: 0.75 IN	
Row Spacing, Unit: 15 IN	
Seed Bed: MEDIUM medium	
Soil Moisture: GOOD good	
Harvest Date: Sep-22-2010	Emergence Date: May-18-2010
Harvested Width, Unit: 6.25 FT	Harvest Equipment: MASSEY 8 XP
% Standard Moisture: 13.0	Harvested Length, Unit: 30 FT
Weighing Equipment: HARVEST MASTER 401	Moisture Meter: HARVEST MASTER

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Pest 2 Type: W **Code:** CHEAL Chenopodium album
Common Name: Common lambsquarters

Pest 3 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 4 Type: W **Code:** POLPY Polygonum pensylvanicum
Common Name: Pennsylvania smartweed

Pest 5 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: Velvetleaf

Pest 6 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed

Pest 7 Type: W **Code:** AMBEL Ambrosia artemisiifolia
Common Name: Common ragweed

Pest 8 Type: W **Code:** SOLPT Solanum ptycanthum
Common Name: Eastern black nightshade

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 FT ²	Tillage Type: CONTIL conventional-till
Replications: 3	Study Design: RACOBL Randomized Complete Block (RCB)
	Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: F-8 East

% OM: 2.4	Texture: SICL silty clay loam
pH: 6.2	Soil Name: Kokomo
CEC: 16	Fert. Level: G good
	Soil Drainage: G good

Application Description

	A	B	C	D
Application Date:	May-6-2010	Jun-4-2010	Jun-10-2010	Jun-25-2010
Time of Day:	12:00 PM	8:30 AM	3:00 PM	9:00 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	MPO	MPO	POST
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Air Temperature, Unit:	62 F	72.4 F	80.5 F	71 F
% Relative Humidity:	58	85.5	58	75
Wind Velocity, Unit:	2.7 MPH	4 MPH	6 MPH	1 MPH
Wind Direction:	SW	SW	NW	NE
Dew Presence (Y/N):	N no	Y yes	N no	Y yes
Soil Temperature, Unit:	60 F	68 F	74 F	68 F
Soil Moisture:	GOOD	WET	GOOD	GOOD
% Cloud Cover:	2	0	5	0
Next Rain Occurred On:	May-8-2010	Jun-4-2010	Jun-11-2010	Jun-27-2010

Crop Stage At Each Application

	A		B		C		D	
Crop 1 Code, BBCH Scale:	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Stage Scale Used:			BBCH		BBCH		BBCH	
Stage Majority, Percent:			12	100	13	100	16	100
Height, Unit:			6	IN	10	IN	14	IN
Height Minimum, Maximum:			5	6	8	10	12	14

Pest Stage At Each Application

	A		B		C		D	
Pest 1 Code, Type, Scale:	AMBTR	W	AMBTR	W	AMBTR	W	AMBTR	W
Stage Majority, Percent:			16	100	14	100	13	100
Height, Unit:			8	IN	9	IN	2	IN
Height Minimum, Maximum:			7	8	7	9	1	4
Density, Unit:				18.4 M2				
Pest 2 Code, Type, Scale:	CHEAL	W	CHEAL	W	CHEAL	W	CHEAL	W
Stage Majority, Percent:			14	100			14	100
Height, Unit:			2	IN			2	IN
Height Minimum, Maximum:			1	2			1	2
Density, Unit:				26.4 M2				
Pest 3 Code, Type, Scale:	SETFA	W	SETFA	W	SETFA	W	SETFA	W
Stage Majority, Percent:			13	100	12	100		
Height, Unit:			6	IN	4	IN		
Height Minimum, Maximum:			5	6	3	4		
Density, Unit:				32 M2				
Pest 4 Code, Type, Scale:	POLPY	W	POLPY	W	POLPY	W	POLPY	W
Stage Majority, Percent:			14	100				
Height, Unit:			3	IN				
Height Minimum, Maximum:			2	3				
Density, Unit:				4 M2				
Pest 5 Code, Type, Scale:	ABUTH	W	ABUTH	W	ABUTH	W	ABUTH	W
Stage Majority, Percent:			13	100				
Height, Unit:			3	IN				
Height Minimum, Maximum:			2	3				
Pest 6 Code, Type, Scale:	AMARE	W	AMARE	W	AMARE	W	AMARE	W
Stage Majority, Percent:			14	100				
Height, Unit:			2	IN				
Height Minimum, Maximum:			1	2				
Density, Unit:				9.2 M2				
Pest 7 Code, Type, Scale:	AMBEL	W	AMBEL	W	AMBEL	W	AMBEL	W
Stage Majority, Percent:			14	100				
Height, Unit:			3	IN				
Height Minimum, Maximum:			2	3				
Density, Unit:				2.4 M2				
Pest 8 Code, Type, Scale:	SOLPT	W	SOLPT	W	SOLPT	W	SOLPT	W
Stage Majority, Percent:			12	100				
Height, Unit:			0.5	IN				
Height Minimum, Maximum:			0.5	1				

Application Equipment

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

Trt No Treatment Application Comment

plot 208 was sprayed with trt 9 Durango DMA and ams at the post timing

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Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	1	2	3	4	5
							0	0	0	0	0
1	Sharpen	2.85 LBA/GAL		1 oz/a		A	55	47	98	100	0
1	Spartan	4 LBA/GAL		4 oz/a		A					
1	Classic	25 %AW/W		1 oz/a		A					
1	Cadet	0.91 LBA/GAL		0.5 oz/a		C					
1	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
1	Coc	100 %		0.8 qt/a		C					
1	N-pak ams	100 %		2.4 qt/a		C					
2	Sharpen	2.85 LBA/GAL		1 oz/a		A	65	20	100	100	0
2	Spartan	4 LBA/GAL		4 oz/a		A					
2	Classic	25 %AW/W		1 oz/a		A					
2	Cadet	0.91 LBA/GAL		0.7 oz/a		C					
2	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
2	Coc	100 %		0.8 qt/a		C					
2	N-pak ams	100 %		2.4 qt/a		C					
3	Sharpen	2.85 LBA/GAL		1 oz/a		A	58	40	100	100	0
3	Spartan	4 LBA/GAL		4 oz/a		A					
3	Classic	25 %AW/W		1 oz/a		A					
3	Cadet	0.91 LBA/GAL		0.9 oz/a		C					
3	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
3	Coc	100 %		0.8 qt/a		C					
3	N-pak ams	100 %		2.4 qt/a		C					
4	Sharpen	2.85 LBA/GAL		1 oz/a		A	73	47	100	100	0
4	Spartan	4 LBA/GAL		4 oz/a		A					
4	Classic	25 %AW/W		1 oz/a		A					
4	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
4	Resource	0.86 LBA/GAL		6 oz/a		C					
4	N-pak ams	100 %		2.4 qt/a		C					
5	Sharpen	2.85 LBA/GAL		1 oz/a		A	33	17	100	98	0
5	Spartan	4 LBA/GAL		4 oz/a		A					
5	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
5	N-pak ams	100 %		2.4 qt/a		C					
6	Sonic	70 %AW/W		3 oz/a		A	43	40	100	100	0
6	Durango DMA	4 LBAE/GAL		24 oz/a		C					
6	N-pak ams	100 %		1.6 qt/a		C					
7	Sonic	70 %AW/W		4.5 oz/a		A	65	30	100	100	0
7	Durango DMA	4 LBAE/GAL		24 oz/a		C					
7	N-pak ams	100 %		1.6 qt/a		C					
8	Durango DMA	4 LBAE/GAL		24 oz/a		B					1
8	Firstrate	84 %AW/W		0.3 oz/a		B					

Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	SETFA	AMBTR	CHEAL	AMARE							
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>							
Pest Name	Giant foxtail	Giant ragweed	Common lambsqu>	Redroot pigweed							
Crop Code					GLXMA						
BBCH Scale					BSOY						
Crop Scientific Name					Glycine max						
Crop Name					Soybean						
Rating Date	Jun-10-2010	Jun-10-2010	Jun-10-2010	Jun-10-2010	Jun-10-2010						
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	PHYCHL						
Rating Unit	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1						
Days After First/Last Applic.	35 6	35 6	35 6	35 6	35 6						
Trt-Eval Interval	AT MPO	AT MPO	AT MPO	AT MPO	6 DA-B						
Plant-Eval Interval	35 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1						
Days After Emergence	23 DE-	23 DE-	23 DE-	23 DE-	23 DE-						
ARM Action Codes											
Number of Decimals	0	0	0	0	0						
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate Unit	Appl Code	1	2	3	4	5
8	N-pak ams	100 %		1.6 qt/a		B					
8	Durango DMA	4 LBAE/GAL		24 oz/a		D					
8	N-pak ams	100 %		1.6 qt/a		D					
9	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B					1
9	N-pak ams	100 %		4 qt/a		B					
10	Vida	100 %		0.75 oz/a		B					3
10	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B					
10	N-pak ams	100 %		4 qt/a		B					
11	Aim	2 LB/GAL		0.5 oz/a		B					2
11	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B					
11	N-pak ams	100 %		4 qt/a		B					
12	Cadet	0.91 LBA/GAL		0.6 oz/a		B					1
12	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B					
12	N-pak ams	100 %		4 qt/a		B					
13	Resource	0.86 LBA/GAL		3 oz/a		B					1
13	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B					
13	N-pak ams	100 %		2.4 qt/a		B					
14	V-10206	85 %AW/W		1.5 oz/a		B					2
14	Resource	0.86 LBA/GAL		3 oz/a		B					
14	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B					
14	N-pak ams	100 %		2.4 qt/a		B					
15	Prefix	5.29 LBA/GAL		1 pt/a		B					1
15	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B					
15	N-pak ams	100 %		2.4 qt/a		B					
16	UTC						0	0	0	0	0
LSD (P=.05)				18.6			20.0		1.8		1.8
Standard Deviation				10.6			11.4		1.0		1.0
CV				21.63			38.06		1.17		1.17
Bartlett's X2				7.352			2.584		0.0		0.0
P(Bartlett's X2)				0.29			0.764		.		.
Replicate F				11.200			0.671		1.000		1.000
Replicate Prob(F)				0.0012			0.5268		0.3927		0.3927
Treatment F				14.800			6.356		3583.858		3583.858
Treatment Prob(F)				0.0001			0.0017		0.0001		0.0001

Pest Type				W Weed	W Weed	W Weed
Pest Code				SETFA	AMBTR	AMBEL
Pest Scientific Name				Setaria faberi	Ambrosia trifi>	Ambrosia artem>
Pest Name				Giant foxtail	Giant ragweed	Common ragweed
Crop Code	GLXMA	GLXMA				
BBCH Scale	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max				
Crop Name	Soybean	Soybean				
Rating Date	Jun-10-2010	Jun-18-2010		Jun-18-2010	Jun-18-2010	Jun-18-2010
Rating Type	PHYLMA	PHYNEC		CONTROL	CONTROL	CONTROL
Rating Unit	%	%		%	%	%
Number of Subsamples	1	1		1	1	1
Days After First/Last Applic.	35 6	43 8		43 8	43 8	43 8
Trt-Eval Interval	6 DA-B	14 DA-B		14 DA-B	14 DA-B	14 DA-B
Plant-Eval Interval	35 DP-1	43 DP-1		43 DP-1	43 DP-1	43 DP-1
Days After Emergence	23 DE-	31 DE-		31 DE-	31 DE-	31 DE-
ARM Action Codes						
Number of Decimals				0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	6	7	8	9	10
1	Sharpen	2.85 LBA/GAL		1 oz/a		A	0	3	100	99	100
1	Spartan	4 LBA/GAL		4 oz/a		A					
1	Classic	25 %AW/W		1 oz/a		A					
1	Cadet	0.91 LBA/GAL		0.5 oz/a		C					
1	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
1	Coc	100 %		0.8 qt/a		C					
1	N-pak ams	100 %		2.4 qt/a		C					
2	Sharpen	2.85 LBA/GAL		1 oz/a		A	0	6	100	86	100
2	Spartan	4 LBA/GAL		4 oz/a		A					
2	Classic	25 %AW/W		1 oz/a		A					
2	Cadet	0.91 LBA/GAL		0.7 oz/a		C					
2	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
2	Coc	100 %		0.8 qt/a		C					
2	N-pak ams	100 %		2.4 qt/a		C					
3	Sharpen	2.85 LBA/GAL		1 oz/a		A	0	9	100	99	100
3	Spartan	4 LBA/GAL		4 oz/a		A					
3	Classic	25 %AW/W		1 oz/a		A					
3	Cadet	0.91 LBA/GAL		0.9 oz/a		C					
3	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
3	Coc	100 %		0.8 qt/a		C					
3	N-pak ams	100 %		2.4 qt/a		C					
4	Sharpen	2.85 LBA/GAL		1 oz/a		A	0	6	100	99	100
4	Spartan	4 LBA/GAL		4 oz/a		A					
4	Classic	25 %AW/W		1 oz/a		A					
4	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
4	Resource	0.86 LBA/GAL		6 oz/a		C					
4	N-pak ams	100 %		2.4 qt/a		C					
5	Sharpen	2.85 LBA/GAL		1 oz/a		A	0	0	100	93	100
5	Spartan	4 LBA/GAL		4 oz/a		A					
5	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
5	N-pak ams	100 %		2.4 qt/a		C					
6	Sonic	70 %AW/W		3 oz/a		A	0	0	100	99	100
6	Durango DMA	4 LBAE/GAL		24 oz/a		C					
6	N-pak ams	100 %		1.6 qt/a		C					
7	Sonic	70 %AW/W		4.5 oz/a		A	0	0	100	94	100
7	Durango DMA	4 LBAE/GAL		24 oz/a		C					
7	N-pak ams	100 %		1.6 qt/a		C					
8	Durango DMA	4 LBAE/GAL		24 oz/a		B	1	0	100	96	100
8	Firstrate	84 %AW/W		0.3 oz/a		B					

Pest Type					W Weed	W Weed	W Weed					
Pest Code					SETFA	AMBTR	AMBEL					
Pest Scientific Name					Setaria faberi	Ambrosia trifi>	Ambrosia artem>					
Pest Name					Giant foxtail	Giant ragweed	Common ragweed					
Crop Code	GLXMA	GLXMA										
BBCH Scale	BSOY	BSOY										
Crop Scientific Name	Glycine max	Glycine max										
Crop Name	Soybean	Soybean										
Rating Date	Jun-10-2010	Jun-18-2010			Jun-18-2010	Jun-18-2010	Jun-18-2010					
Rating Type	PHYLMA	PHYNEC			CONTROL	CONTROL	CONTROL					
Rating Unit	%	%			%	%	%					
Number of Subsamples	1	1			1	1	1					
Days After First/Last Applic.	35 6	43 8			43 8	43 8	43 8					
Trt-Eval Interval	6 DA-B	14 DA-B			14 DA-B	14 DA-B	14 DA-B					
Plant-Eval Interval	35 DP-1	43 DP-1			43 DP-1	43 DP-1	43 DP-1					
Days After Emergence	23 DE-	31 DE-			31 DE-	31 DE-	31 DE-					
ARM Action Codes												
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
8	N-pak ams	100 %		1.6 qt/a		B						
8	Durango DMA	4 LBAE/GAL		24 oz/a		D						
8	N-pak ams	100 %		1.6 qt/a		D						
9	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B		0	2	97	91	100
9	N-pak ams	100 %		4 qt/a		B						
10	Vida	100 %		0.75 oz/a		B		12	7	98	81	100
10	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B						
10	N-pak ams	100 %		4 qt/a		B						
11	Aim	2 LB/GAL		0.5 oz/a		B		30	13	93	81	100
11	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B						
11	N-pak ams	100 %		4 qt/a		B						
12	Cadet	0.91 LBA/GAL		0.6 oz/a		B		5	3	98	85	100
12	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B						
12	N-pak ams	100 %		4 qt/a		B						
13	Resource	0.86 LBA/GAL		3 oz/a		B		2	3	90	74	100
13	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B						
13	N-pak ams	100 %		2.4 qt/a		B						
14	V-10206	85 %AW/W		1.5 oz/a		B		6	5	99	73	100
14	Resource	0.86 LBA/GAL		3 oz/a		B						
14	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B						
14	N-pak ams	100 %		2.4 qt/a		B						
15	Prefix	5.29 LBA/GAL		1 pt/a		B		9	7	100	87	97
15	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B						
15	N-pak ams	100 %		2.4 qt/a		B						
16	UTC							0	0	0	0	0
LSD (P=.05)								1.6	3.1	6.5	9.3	2.4
Standard Deviation								1.0	1.8	3.9	5.6	1.4
CV								24.06	45.51	4.21	6.64	1.54
Bartlett's X2								4.895	12.234	13.007	20.189	0.0
P(Bartlett's X2)								0.298	0.20	0.023*	0.124	.
Replicate F								0.636	1.774	1.331	3.358	1.000
Replicate Prob(F)								0.5362	0.1870	0.2794	0.0483	0.3798
Treatment F								201.623	13.344	122.206	55.538	897.000
Treatment Prob(F)								0.0001	0.0001	0.0001	0.0001	0.0001

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate Unit	Appl Code	11	12	13	14	15
	1 Sharpen	2.85 LBA/GAL		1 oz/a		A	100	100	0	99	98
	1 Spartan	4 LBA/GAL		4 oz/a		A					
	1 Classic	25 %AW/W		1 oz/a		A					
	1 Cadet	0.91 LBA/GAL		0.5 oz/a		C					
	1 Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
	1 Coc	100 %		0.8 qt/a		C					
	1 N-pak ams	100 %		2.4 qt/a		C					
	2 Sharpen	2.85 LBA/GAL		1 oz/a		A	100	100	1	99	94
	2 Spartan	4 LBA/GAL		4 oz/a		A					
	2 Classic	25 %AW/W		1 oz/a		A					
	2 Cadet	0.91 LBA/GAL		0.7 oz/a		C					
	2 Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
	2 Coc	100 %		0.8 qt/a		C					
	2 N-pak ams	100 %		2.4 qt/a		C					
	3 Sharpen	2.85 LBA/GAL		1 oz/a		A	100	100	1	99	98
	3 Spartan	4 LBA/GAL		4 oz/a		A					
	3 Classic	25 %AW/W		1 oz/a		A					
	3 Cadet	0.91 LBA/GAL		0.9 oz/a		C					
	3 Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
	3 Coc	100 %		0.8 qt/a		C					
	3 N-pak ams	100 %		2.4 qt/a		C					
	4 Sharpen	2.85 LBA/GAL		1 oz/a		A	100	100	0	99	96
	4 Spartan	4 LBA/GAL		4 oz/a		A					
	4 Classic	25 %AW/W		1 oz/a		A					
	4 Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
	4 Resource	0.86 LBA/GAL		6 oz/a		C					
	4 N-pak ams	100 %		2.4 qt/a		C					
	5 Sharpen	2.85 LBA/GAL		1 oz/a		A	100	100	0	99	99
	5 Spartan	4 LBA/GAL		4 oz/a		A					
	5 Roundup weathermax	4.5 LBAE/GAL		22 oz/a		C					
	5 N-pak ams	100 %		2.4 qt/a		C					
	6 Sonic	70 %AW/W		3 oz/a		A	100	100	0	99	99
	6 Durango DMA	4 LBAE/GAL		24 oz/a		C					
	6 N-pak ams	100 %		1.6 qt/a		C					
	7 Sonic	70 %AW/W		4.5 oz/a		A	100	100	0	100	97
	7 Durango DMA	4 LBAE/GAL		24 oz/a		C					
	7 N-pak ams	100 %		1.6 qt/a		C					
	8 Durango DMA	4 LBAE/GAL		24 oz/a		B	93	100	0	98	99
	8 Firstrate	84 %AW/W		0.3 oz/a		B					

Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	CHEAL	AMARE	SETFA	AMBTR							
Pest Scientific Name	Chenopodium al>	Amaranthus ret>	Setaria faberi	Ambrosia trifi>							
Pest Name	Common lambsqu>	Redroot pigweed	Giant foxtail	Giant ragweed							
Crop Code			GLXMA								
BBCH Scale			BSOY								
Crop Scientific Name			Glycine max								
Crop Name			Soybean								
Rating Date	Jun-18-2010	Jun-18-2010	Jul-1-2010	Jul-1-2010							
Rating Type	CONTROL	CONTROL	PHYGEN	CONTROL							
Rating Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Days After First/Last Applic.	43 8	43 8	56 6	56 6							
Trt-Eval Interval	14 DA-B	14 DA-B	27 DA-B	27 DA-B							
Plant-Eval Interval	43 DP-1	43 DP-1	56 DP-1	56 DP-1							
Days After Emergence	31 DE-	31 DE-	44 DE-	44 DE-							
ARM Action Codes											
Number of Decimals	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Rate Unit	Appl Code	11	12	13	14	15
8	N-pak ams	100 %		1.6 qt/a		B					
8	Durango DMA	4 LBAE/GAL		24 oz/a		D					
8	N-pak ams	100 %		1.6 qt/a		D					
9	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B	83	98	0	95	77
9	N-pak ams	100 %		4 qt/a		B					
10	Vida	100 %		0.75 oz/a		B	87	100	0	92	72
10	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B					
10	N-pak ams	100 %		4 qt/a		B					
11	Aim	2 LB/GAL		0.5 oz/a		B	89	100	2	77	67
11	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B					
11	N-pak ams	100 %		4 qt/a		B					
12	Cadet	0.91 LBA/GAL		0.6 oz/a		B	98	100	0	90	73
12	Roundup weathermax	4.5 LBAE/GAL		22 oz/a		B					
12	N-pak ams	100 %		4 qt/a		B					
13	Resource	0.86 LBA/GAL		3 oz/a		B	87	100	0	90	68
13	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B					
13	N-pak ams	100 %		2.4 qt/a		B					
14	V-10206	85 %AW/W		1.5 oz/a		B	95	100	1	99	70
14	Resource	0.86 LBA/GAL		3 oz/a		B					
14	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B					
14	N-pak ams	100 %		2.4 qt/a		B					
15	Prefix	5.29 LBA/GAL		1 pt/a		B	100	100	0	100	82
15	Roundup Power Max	4.5 LBAE/GAL		22 oz/a		B					
15	N-pak ams	100 %		2.4 qt/a		B					
16	UTC						0	0	0	0	0
LSD (P=.05)							9.7	1.2	0.6	3.9	8.0
Standard Deviation							5.8	0.7	0.3	2.3	4.8
CV							6.51	0.77	109.3	2.61	5.99
Bartlett's X2							6.015	0.0	0.0	16.557	19.487
P(Bartlett's X2)							0.422	.	.	0.122	0.147
Replicate F							0.545	1.000	2.143	0.198	0.055
Replicate Prob(F)							0.5853	0.3798	0.1349	0.8218	0.9469
Treatment F							53.403	3593.000	7.036	333.851	81.021
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001

Pest Type	W Weed	W Weed	W Weed
Pest Code	AMBEL	CHEAL	AMARE
Pest Scientific Name	Ambrosia artem>	Chenopodium al>	Amaranthus ret>
Pest Name	Common ragweed	Common lambsqu>	Redroot pigweed
Crop Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jul-1-2010	Jul-1-2010	Jul-1-2010
Rating Type	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Days After First/Last Applic.	56 6	56 6	56 6
Trt-Eval Interval	27 DA-B	27 DA-B	27 DA-B
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	44 DE-	44 DE-	44 DE-
ARM Action Codes			
Number of Decimals	0	0	0

Trt No.	Treatment Name	Form Conc	Form Unit	Other Rate	Other Unit	Appl Code	16	17	18
1	Sharpen	2.85	LBA/GAL	1 oz/a	A	A	100	100	100
1	Spartan	4	LBA/GAL	4 oz/a	A	A			
1	Classic	25	%AW/W	1 oz/a	A	A			
1	Cadet	0.91	LBA/GAL	0.5 oz/a	C	C			
1	Roundup weathermax	4.5	LBAE/GAL	22 oz/a	C	C			
1	Coc	100	%	0.8 qt/a	C	C			
1	N-pak ams	100	%	2.4 qt/a	C	C			
2	Sharpen	2.85	LBA/GAL	1 oz/a	A	A	100	100	100
2	Spartan	4	LBA/GAL	4 oz/a	A	A			
2	Classic	25	%AW/W	1 oz/a	A	A			
2	Cadet	0.91	LBA/GAL	0.7 oz/a	C	C			
2	Roundup weathermax	4.5	LBAE/GAL	22 oz/a	C	C			
2	Coc	100	%	0.8 qt/a	C	C			
2	N-pak ams	100	%	2.4 qt/a	C	C			
3	Sharpen	2.85	LBA/GAL	1 oz/a	A	A	100	100	100
3	Spartan	4	LBA/GAL	4 oz/a	A	A			
3	Classic	25	%AW/W	1 oz/a	A	A			
3	Cadet	0.91	LBA/GAL	0.9 oz/a	C	C			
3	Roundup weathermax	4.5	LBAE/GAL	22 oz/a	C	C			
3	Coc	100	%	0.8 qt/a	C	C			
3	N-pak ams	100	%	2.4 qt/a	C	C			
4	Sharpen	2.85	LBA/GAL	1 oz/a	A	A	100	100	100
4	Spartan	4	LBA/GAL	4 oz/a	A	A			
4	Classic	25	%AW/W	1 oz/a	A	A			
4	Roundup weathermax	4.5	LBAE/GAL	22 oz/a	C	C			
4	Resource	0.86	LBA/GAL	6 oz/a	C	C			
4	N-pak ams	100	%	2.4 qt/a	C	C			
5	Sharpen	2.85	LBA/GAL	1 oz/a	A	A	100	100	100
5	Spartan	4	LBA/GAL	4 oz/a	A	A			
5	Roundup weathermax	4.5	LBAE/GAL	22 oz/a	C	C			
5	N-pak ams	100	%	2.4 qt/a	C	C			
6	Sonic	70	%AW/W	3 oz/a	A	A	100	100	100
6	Durango DMA	4	LBAE/GAL	24 oz/a	C	C			
6	N-pak ams	100	%	1.6 qt/a	C	C			
7	Sonic	70	%AW/W	4.5 oz/a	A	A	100	100	100
7	Durango DMA	4	LBAE/GAL	24 oz/a	C	C			
7	N-pak ams	100	%	1.6 qt/a	C	C			
8	Durango DMA	4	LBAE/GAL	24 oz/a	B	B	100	100	100
8	Firstrate	84	%AW/W	0.3 oz/a	B	B			

Pest Type				W Weed	W Weed	W Weed
Pest Code				AMBEL	CHEAL	AMARE
Pest Scientific Name				Ambrosia artem>	Chenopodium al>	Amaranthus ret>
Pest Name				Common ragweed	Common lambsqu>	Redroot pigweed
Crop Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date				Jul-1-2010	Jul-1-2010	Jul-1-2010
Rating Type				CONTROL	CONTROL	CONTROL
Rating Unit				%	%	%
Number of Subsamples				1	1	1
Days After First/Last Applic.				56 6	56 6	56 6
Trt-Eval Interval				27 DA-B	27 DA-B	27 DA-B
Plant-Eval Interval				56 DP-1	56 DP-1	56 DP-1
Days After Emergence				44 DE-	44 DE-	44 DE-
ARM Action Codes						
Number of Decimals				0	0	0
Trt Treatment	Form Form	Other Other	Appl			
No. Name	Conc Unit	Rate Rate	Unit Code	16	17	18
8 N-pak ams	100 %	1.6 qt/a	B			
8 Durango DMA	4 LBAE/GAL	24 oz/a	D			
8 N-pak ams	100 %	1.6 qt/a	D			
9 Roundup weathermax	4.5 LBAE/GAL	22 oz/a	B	100	75	98
9 N-pak ams	100 %	4 qt/a	B			
10 Vida	100 %	0.75 oz/a	B	99	87	97
10 Roundup weathermax	4.5 LBAE/GAL	22 oz/a	B			
10 N-pak ams	100 %	4 qt/a	B			
11 Aim	2 LB/GAL	0.5 oz/a	B	100	82	88
11 Roundup weathermax	4.5 LBAE/GAL	22 oz/a	B			
11 N-pak ams	100 %	4 qt/a	B			
12 Cadet	0.91 LBA/GAL	0.6 oz/a	B	100	88	98
12 Roundup weathermax	4.5 LBAE/GAL	22 oz/a	B			
12 N-pak ams	100 %	4 qt/a	B			
13 Resource	0.86 LBA/GAL	3 oz/a	B	100	88	99
13 Roundup Power Max	4.5 LBAE/GAL	22 oz/a	B			
13 N-pak ams	100 %	2.4 qt/a	B			
14 V-10206	85 %AW/W	1.5 oz/a	B	100	88	100
14 Resource	0.86 LBA/GAL	3 oz/a	B			
14 Roundup Power Max	4.5 LBAE/GAL	22 oz/a	B			
14 N-pak ams	100 %	2.4 qt/a	B			
15 Prefix	5.29 LBA/GAL	1 pt/a	B	100	99	100
15 Roundup Power Max	4.5 LBAE/GAL	22 oz/a	B			
15 N-pak ams	100 %	2.4 qt/a	B			
16 UTC				0	0	0
LSD (P=.05)				0.5	6.8	3.7
Standard Deviation				0.3	4.1	2.2
CV				0.31	4.61	2.4
Bartlett's X2				0.0	8.409	6.832
P(Bartlett's X2)				.	0.135	0.145
Replicate F				1.000	1.474	1.724
Replicate Prob(F)				0.3798	0.2451	0.1956
Treatment F				22464.002	112.287	374.703
Treatment Prob(F)				0.0001	0.0001	0.0001

Ohio State University Horticulture and Crop Science

SHARPEN PRE WITH SPARTEN CLASSIC CADET POST, AND V-10206 POST APP EFFICACY

Title No. 2:

Trial ID: 10POS2 Protocol ID: 10POS2
Location: Western Branch F-8 Study Director: Bryan Reeb
Project ID: 10POS2 Investigator: Dr. Mark M. Loux
Sponsor Contact: ERIC OTT, VALENT; JOSEPH REED, FMC

Pest Type

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

Pest Code

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

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

PHYCHL = phytotoxicity - chlorosis
PHYLMA = phytotoxicity - leaf malformation
PHYNEC = phytotoxicity - necrosis /burn
PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Plant-Eval Interval

35 DP-1 = 1 May-6-2010
43 DP-1 = 1 May-6-2010
56 DP-1 = 1 May-6-2010