

MSU Weed Science Research Program

Control of volunteer Roundup Ready soybean in Roundup Ready sugarbeet

Trial ID: SB06-10
Conducted: SVREC

Study Dir.: Sprague, Powell
Investigator: Christy Sprague

Date Planted: 3/31/2010
Variety: Hilleshog 9042
Population: 4 1/4" spacing
Soil Type: Clay
Plot Size: 10 X 30 FT
Row Spacing: 30 IN
No. of Reps: 4
% OM: 3.0
pH: 6.8
Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall moldboard plow and spring field cultivation (twice)
Fertilizer: 125 lb/A of nitrogen was applied as urea prior to planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	POLPY	SMARTWEED, PENNSYLVANIA	POLYGONUM PENNSYLVANICUM L.
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	GLXMA	VOLUNTEER, SOYBEAN	GLYCINE MAX
4.	AMASS	REDROOT PIGWEED, POWELL AMARANTH	AMARANTHUS SP.
Crop	Code	Common Name	
1.	BETVU	BEEET, SUGAR	

Application Description

	A	B
Application Timing:	2" weeds	+4" weeds
Date Treated:	5/16/2010	6/8/2010
Time Treated:	5:00pm	12:20 pm
% Cloud Cover:	20	50
Air Temp., Unit:	68 F	73 F
% Relative Humidity:	30	42
Wind Speed/Unit/Dir:	4 mph E	2 mph E
Soil Temp., Unit:	65 F	63 F
Soil/Leaf Surface M:	5 5	5 5
Soil Moist (1=w 5=d):	2	2

Crop Stage at Each Application

	A	B
Crop Name:	BETVU	BETVU
Height (In.):	1-2"	12-14"
Stage (L):	4	12-14

Weed Stage at Each Application

	A	B
Weed 1 Name:	POLPY	POLPY
Height (In.):	1-3"	1-3"
Stage (L):	6-12	4-8
Weed 2 Name:	CHEAL	CHEAL
Height (In.):	1-2"	2-4"
Stage (L):	8-16	10-16
Weed 3 Name:	GLXMA	GLXMA
Height (In.):	3"	6-8"
Stage (L):	V1	V6
Weed 4 Name:	AMASS	AMASS
Height (In.):	-	2-4"
Stage (L):	-	10-16

Weed Density (plants/sq. ft.)

1
Weed Name: GLXMA
Density: 2

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	22"	20"	100"	19	water	28
B	Cub	3.8	AirMix	11003	26"	20"	100"	19	water	28

Comments: Pioneer 92M61 RR soybean seed was drilled and field cultivated into soil prior to planting sugarbeet. Sugarbeet seed treatment was Tach 45 and Beta Poncho 4M.

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Weed Code								GLXMA	CHEAL	POLPY		GLXMA	
Crop Code								BETVU			BETVU	GLXMA	
Rating Data Type								injury	control	control	injury	control	
Rating Unit								percent	percent	percent	percent	percent	
Rating Date								5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/1/2010	6/1/2010
Trt-Eval Interval								8 DA-A	8 DA-A	8 DA-A	8 DA-A	16 DA-A	16 DA-A
# Subsamples, Dec.								0	0	0	0	0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	92	0	0
1	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
1	AMS		WG	17	lb/100 gal	2" weeds	A						
1	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
1	AMS		WG	17	lb/100 gal	+4" wds	B						
2	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	25	99	94	0	18
2	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
2	Herbimax (COC)		L	1	% v/v	2" weeds	A						
2	AMS		WG	17	lb/100 gal	2" weeds	A						
2	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
2	AMS		WG	17	lb/100 gal	+4" wds	B						
3	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	4	40	99	92	0	50
3	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
3	Destiny HC (HSOC)		L	0.5	% v/v	2" weeds	A						
3	AMS		WG	17	lb/100 gal	2" weeds	A						
3	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
3	AMS		WG	17	lb/100 gal	+4" wds	B						
4	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	3	10	99	91	0	25
4	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
4	AMS		WG	17	lb/100 gal	2" weeds	A						
4	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
4	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
4	AMS		WG	17	lb/100 gal	+4" wds	B						
5	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5	13	99	89	1	13
5	UpBeet	50	DG	1	oz/a	2" weeds	A						
5	AMS		WG	17	lb/100 gal	2" weeds	A						
5	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
5	AMS		WG	17	lb/100 gal	+4" wds	B						
6	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	6	76	99	91	0	87
6	Stinger	3	L	1	fl oz/a	2" weeds	A						
6	AMS		WG	17	lb/100 gal	2" weeds	A						
6	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
6	AMS		WG	17	lb/100 gal	+4" wds	B						
7	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	13	84	99	96	3	95
7	Stinger	3	L	2	fl oz/a	2" weeds	A						
7	AMS		WG	17	lb/100 gal	2" weeds	A						
7	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
7	AMS		WG	17	lb/100 gal	+4" wds	B						
8	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	18	91	99	96	3	97
8	Stinger	3	L	4	fl oz/a	2" weeds	A						
8	AMS		WG	17	lb/100 gal	2" weeds	A						
8	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
8	AMS		WG	17	lb/100 gal	+4" wds	B						
9	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	91	0	0
9	AMS		WG	17	lb/100 gal	2" weeds	A						
9	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
9	AMS		WG	17	lb/100 gal	+4" wds	B						

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Weed Code								GLXMA	CHEAL	POLPY			GLXMA
Crop Code								BETVU			BETVU		
Rating Data Type								injury	control	control	control	injury	control
Rating Unit								percent	percent	percent	percent	percent	percent
Rating Date								5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/1/2010	6/1/2010
Trt-Eval Interval								8 DA-A	8 DA-A	8 DA-A	8 DA-A	16 DA-A	16 DA-A
# Subsamples, Dec.								0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
10	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	98	90	0	0
10	AMS		WG	17	lb/100 gal	2" weeds	A						
10	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
10	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
10	AMS		WG	17	lb/100 gal	+4" wds	B						
11	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	92	0	0
11	AMS		WG	17	lb/100 gal	2" weeds	A						
11	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
11	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
11	Herbimax (COC)		L	1	% v/v	+4" wds	B						
11	AMS		WG	17	lb/100 gal	+4" wds	B						
12	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	93	0	0
12	AMS		WG	17	lb/100 gal	2" weeds	A						
12	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
12	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
12	Destiny HC		L	0.5	% v/v	+4" wds	B						
12	AMS		WG	17	lb/100 gal	+4" wds	B						
13	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	91	0	0
13	AMS		WG	17	lb/100 gal	2" weeds	A						
13	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
13	UpBeet	50	DG	1	oz/a	+4" wds	B						
13	AMS		WG	17	lb/100 gal	+4" wds	B						
14	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	92	0	0
14	AMS		WG	17	lb/100 gal	2" weeds	A						
14	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
14	Stinger	3	L	1	fl oz/a	+4" wds	B						
14	AMS		WG	17	lb/100 gal	+4" wds	B						
15	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	92	0	0
15	AMS		WG	17	lb/100 gal	2" weeds	A						
15	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
15	Stinger	3	L	2	fl oz/a	+4" wds	B						
15	AMS		WG	17	lb/100 gal	+4" wds	B						
16	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	0	0	99	92	0	0
16	AMS		WG	17	lb/100 gal	2" weeds	A						
16	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
16	Stinger	3	L	4	fl oz/a	+4" wds	B						
16	AMS		WG	17	lb/100 gal	+4" wds	B						
LSD (P=.05)								4.2	5.1	0.7	7.1	1.5	4.4
Standard Deviation								2.9	3.6	0.5	4.9	1.1	3.1
CV								98.25	17.06	0.51	5.36	298.99	12.94

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Weed Code	CHEAL	POLPY	BETVU	GLXMA	CHEAL	POLPY
Crop Code						
Rating Data Type	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	6/1/2010	6/1/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Trt-Eval Interval	16 DA-A	16 DA-A	29 DA-A	29 DA-A	29 DA-A	29 DA-A
# Subsamples, Dec.	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	CHEAL	POLPY	BETVU	GLXMA	CHEAL	POLPY
1	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	0	0	99	95
1	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
1	AMS		WG	17	lb/100 gal	2" weeds	A						
1	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
1	AMS		WG	17	lb/100 gal	+4" wds	B						
2	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	0	13	99	96
2	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
2	Herbimax (COC)		L	1	% v/v	2" weeds	A						
2	AMS		WG	17	lb/100 gal	2" weeds	A						
2	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
2	AMS		WG	17	lb/100 gal	+4" wds	B						
3	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	1	50	98	96
3	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
3	Destiny HC (HSOC)		L	0.5	% v/v	2" weeds	A						
3	AMS		WG	17	lb/100 gal	2" weeds	A						
3	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
3	AMS		WG	17	lb/100 gal	+4" wds	B						
4	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	98	1	24	99	96
4	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
4	AMS		WG	17	lb/100 gal	2" weeds	A						
4	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
4	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
4	AMS		WG	17	lb/100 gal	+4" wds	B						
5	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	98	92	3	10	98	96
5	UpBeet	50	DG	1	oz/a	2" weeds	A						
5	AMS		WG	17	lb/100 gal	2" weeds	A						
5	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
5	AMS		WG	17	lb/100 gal	+4" wds	B						
6	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	98	92	0	88	98	94
6	Stinger	3	L	1	fl oz/a	2" weeds	A						
6	AMS		WG	17	lb/100 gal	2" weeds	A						
6	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
6	AMS		WG	17	lb/100 gal	+4" wds	B						
7	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	96	0	96	99	97
7	Stinger	3	L	2	fl oz/a	2" weeds	A						
7	AMS		WG	17	lb/100 gal	2" weeds	A						
7	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
7	AMS		WG	17	lb/100 gal	+4" wds	B						
8	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	1	99	99	98
8	Stinger	3	L	4	fl oz/a	2" weeds	A						
8	AMS		WG	17	lb/100 gal	2" weeds	A						
8	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
8	AMS		WG	17	lb/100 gal	+4" wds	B						
9	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	0	0	96	96
9	AMS		WG	17	lb/100 gal	2" weeds	A						
9	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
9	AMS		WG	17	lb/100 gal	+4" wds	B						

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Weed Code	CHEAL	POLPY	BETVU	GLXMA	CHEAL	POLPY
Crop Code						
Rating Data Type	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	6/1/2010	6/1/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Trt-Eval Interval	16 DA-A	16 DA-A	29 DA-A	29 DA-A	29 DA-A	29 DA-A
# Subsamples, Dec.	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	CHEAL	POLPY	BETVU	GLXMA	CHEAL	POLPY
10	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	96	0	21	98	95
10	AMS		WG	17	lb/100 gal	2" weeds	A						
10	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
10	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
10	AMS		WG	17	lb/100 gal	+4" wds	B						
11	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	98	96	2	31	95	96
11	AMS		WG	17	lb/100 gal	2" weeds	A						
11	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
11	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
11	Herbimax (COC)		L	1	% v/v	+4" wds	B						
11	AMS		WG	17	lb/100 gal	+4" wds	B						
12	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	98	97	0	41	99	99
12	AMS		WG	17	lb/100 gal	2" weeds	A						
12	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
12	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
12	Destiny HC		L	0.5	% v/v	+4" wds	B						
12	AMS		WG	17	lb/100 gal	+4" wds	B						
13	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	95	3	31	99	95
13	AMS		WG	17	lb/100 gal	2" weeds	A						
13	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
13	UpBeet	50	DG	1	oz/a	+4" wds	B						
13	AMS		WG	17	lb/100 gal	+4" wds	B						
14	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	94	1	75	99	97
14	AMS		WG	17	lb/100 gal	2" weeds	A						
14	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
14	Stinger	3	L	1	fl oz/a	+4" wds	B						
14	AMS		WG	17	lb/100 gal	+4" wds	B						
15	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	96	3	83	98	98
15	AMS		WG	17	lb/100 gal	2" weeds	A						
15	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
15	Stinger	3	L	2	fl oz/a	+4" wds	B						
15	AMS		WG	17	lb/100 gal	+4" wds	B						
16	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	98	95	1	84	99	98
16	AMS		WG	17	lb/100 gal	2" weeds	A						
16	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
16	Stinger	3	L	4	fl oz/a	+4" wds	B						
16	AMS		WG	17	lb/100 gal	+4" wds	B						

LSD (P=.05)	1.6	3.7	2.7	6.5	2.6	3.7
Standard Deviation	1.1	2.6	1.9	4.6	1.8	2.6
CV	1.12	2.69	216.26	9.81	1.88	2.67

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Weed Code								AMASS		GLXMA	CHEAL	POLPY	GLXMA
Crop Code									BETVU				
Rating Data Type								control	injury	control	control	control	control
Rating Unit								percent	percent	percent	percent	percent	percent
Rating Date								6/14/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	9/14/2010
Trt-Eval Interval								29 DA-A	38 DA-A	38 DA-A	38 DA-A	38 DA-A	121 DA-A
# Subsamples, Dec.								0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	0	99	99	15
1	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
1	AMS		WG	17	lb/100 gal	2" weeds	A						
1	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
1	AMS		WG	17	lb/100 gal	+4" wds	B						
2	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	6	99	99	31
2	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
2	Herbimax (COC)		L	1	% v/v	2" weeds	A						
2	AMS		WG	17	lb/100 gal	2" weeds	A						
2	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
2	AMS		WG	17	lb/100 gal	+4" wds	B						
3	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	18	99	99	30
3	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
3	Destiny HC (HSOC)		L	0.5	% v/v	2" weeds	A						
3	AMS		WG	17	lb/100 gal	2" weeds	A						
3	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
3	AMS		WG	17	lb/100 gal	+4" wds	B						
4	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	16	99	99	39
4	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
4	AMS		WG	17	lb/100 gal	2" weeds	A						
4	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
4	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
4	AMS		WG	17	lb/100 gal	+4" wds	B						
5	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	8	99	99	23
5	UpBeet	50	DG	1	oz/a	2" weeds	A						
5	AMS		WG	17	lb/100 gal	2" weeds	A						
5	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
5	AMS		WG	17	lb/100 gal	+4" wds	B						
6	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	89	99	99	91
6	Stinger	3	L	1	fl oz/a	2" weeds	A						
6	AMS		WG	17	lb/100 gal	2" weeds	A						
6	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
6	AMS		WG	17	lb/100 gal	+4" wds	B						
7	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	97	99	99	99
7	Stinger	3	L	2	fl oz/a	2" weeds	A						
7	AMS		WG	17	lb/100 gal	2" weeds	A						
7	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
7	AMS		WG	17	lb/100 gal	+4" wds	B						
8	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	99	99	99	99
8	Stinger	3	L	4	fl oz/a	2" weeds	A						
8	AMS		WG	17	lb/100 gal	2" weeds	A						
8	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
8	AMS		WG	17	lb/100 gal	+4" wds	B						
9	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	2	99	99	0
9	AMS		WG	17	lb/100 gal	2" weeds	A						
9	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
9	AMS		WG	17	lb/100 gal	+4" wds	B						

MSU Weed Science Research Program

Control of volunteer Roundup Ready soybean in Roundup Ready sugarbeet

Trial ID: SB06-10
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code							AMASS		GLXMA	CHEAL	POLPY	GLXMA	
Crop Code								BETVU					
Rating Data Type							control	injury	control	control	control	control	
Rating Unit							percent	percent	percent	percent	percent	percent	
Rating Date							6/14/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	9/14/2010	
Trt-Eval Interval							29 DA-A	38 DA-A	38 DA-A	38 DA-A	38 DA-A	121 DA-A	
# Subsamples, Dec.							0	0	0	0	0	0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
10	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	8	99	98	18
10	AMS		WG	17	lb/100 gal	2" weeds	A						
10	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
10	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
10	AMS		WG	17	lb/100 gal	+4" wds	B						
11	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	21	99	99	36
11	AMS		WG	17	lb/100 gal	2" weeds	A						
11	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
11	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
11	Herbimax (COC)		L	1	% v/v	+4" wds	B						
11	AMS		WG	17	lb/100 gal	+4" wds	B						
12	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	43	99	99	53
12	AMS		WG	17	lb/100 gal	2" weeds	A						
12	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
12	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
12	Destiny HC		L	0.5	% v/v	+4" wds	B						
12	AMS		WG	17	lb/100 gal	+4" wds	B						
13	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	24	99	99	23
13	AMS		WG	17	lb/100 gal	2" weeds	A						
13	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
13	UpBeet	50	DG	1	oz/a	+4" wds	B						
13	AMS		WG	17	lb/100 gal	+4" wds	B						
14	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	83	99	99	95
14	AMS		WG	17	lb/100 gal	2" weeds	A						
14	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
14	Stinger	3	L	1	fl oz/a	+4" wds	B						
14	AMS		WG	17	lb/100 gal	+4" wds	B						
15	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	87	99	99	99
15	AMS		WG	17	lb/100 gal	2" weeds	A						
15	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
15	Stinger	3	L	2	fl oz/a	+4" wds	B						
15	AMS		WG	17	lb/100 gal	+4" wds	B						
16	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	0	91	99	99	99
16	AMS		WG	17	lb/100 gal	2" weeds	A						
16	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
16	Stinger	3	L	4	fl oz/a	+4" wds	B						
16	AMS		WG	17	lb/100 gal	+4" wds	B						
LSD (P=.05)								0.0	0.0	9.4	0.5	0.9	17.0
Standard Deviation								0.0	0.0	6.6	0.3	0.7	11.9
CV								0.0	0.0	15.32	0.35	0.67	22.46

MSU Weed Science Research Program

Control of volunteer Roundup Ready soybean in Roundup Ready sugarbeet

Trial ID: SB06-10
Conducted: SVREC

Study Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code						CHEAL	AMASS			BETVU	BETVU	BETVU	BETVU
Crop Code						control	control	count	% sugar	yield	RWST		
Rating Data Type						percent	percent	100' row	percent	cwt/acre	#/ton		
Rating Unit						9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010
Rating Date						121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A
Trt-Eval Interval						0	0	0	1	1	1	1	1
# Subsamples, Dec.						0	0	0	1	1	1	1	1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	98	99	190	18.6	18.5	270.6
1	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
1	AMS		WG	17	lb/100 gal	2" weeds	A						
1	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
1	AMS		WG	17	lb/100 gal	+4" wds	B						
2	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	99	203	18.5	19.2	268.4
2	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
2	Herbimax (COC)		L	1	% v/v	2" weeds	A						
2	AMS		WG	17	lb/100 gal	2" weeds	A						
2	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
2	AMS		WG	17	lb/100 gal	+4" wds	B						
3	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	205	18.2	19.9	266.3
3	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
3	Destiny HC (HSOC)		L	0.5	% v/v	2" weeds	A						
3	AMS		WG	17	lb/100 gal	2" weeds	A						
3	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
3	AMS		WG	17	lb/100 gal	+4" wds	B						
4	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	99	203	19.2	21.7	280.0
4	UpBeet	50	DG	0.5	oz/a	2" weeds	A						
4	AMS		WG	17	lb/100 gal	2" weeds	A						
4	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
4	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
4	AMS		WG	17	lb/100 gal	+4" wds	B						
5	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	99	211	19.0	20.9	277.9
5	UpBeet	50	DG	1	oz/a	2" weeds	A						
5	AMS		WG	17	lb/100 gal	2" weeds	A						
5	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
5	AMS		WG	17	lb/100 gal	+4" wds	B						
6	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	214	18.1	25.0	265.8
6	Stinger	3	L	1	fl oz/a	2" weeds	A						
6	AMS		WG	17	lb/100 gal	2" weeds	A						
6	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
6	AMS		WG	17	lb/100 gal	+4" wds	B						
7	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	98	200	18.3	22.3	267.3
7	Stinger	3	L	2	fl oz/a	2" weeds	A						
7	AMS		WG	17	lb/100 gal	2" weeds	A						
7	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
7	AMS		WG	17	lb/100 gal	+4" wds	B						
8	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	98	206	18.2	23.1	267.1
8	Stinger	3	L	4	fl oz/a	2" weeds	A						
8	AMS		WG	17	lb/100 gal	2" weeds	A						
8	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
8	AMS		WG	17	lb/100 gal	+4" wds	B						
9	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	99	198	18.5	16.6	274.4
9	AMS		WG	17	lb/100 gal	2" weeds	A						
9	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
9	AMS		WG	17	lb/100 gal	+4" wds	B						

MSU Weed Science Research Program

Control of volunteer Roundup Ready soybean in Roundup Ready sugarbeet

Trial ID: SB06-10
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code						CHEAL	AMASS			BETVU	BETVU	BETVU	BETVU
Crop Code						control	control	count	% sugar	yield	RWST		
Rating Data Type						percent	percent	100' row	percent	cwt/acre	#/ton		
Rating Unit						9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010	9/14/2010
Rating Date						121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A	121 DA-A
Trt-Eval Interval						0	0	0	1	1	1	1	1
# Subsamples, Dec.						0	0	0	1	1	1	1	1
Trt	Treatment	Form	Form	Rate	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Unit	Stg	Code						
10	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	98	202	18.6	18.0	275.3
10	AMS		WG	17	lb/100 gal	2" weeds	A						
10	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
10	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
10	AMS		WG	17	lb/100 gal	+4" wds	B						
11	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	99	210	18.7	17.9	275.8
11	AMS		WG	17	lb/100 gal	2" weeds	A						
11	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
11	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
11	Herbimax (COC)		L	1	% v/v	+4" wds	B						
11	AMS		WG	17	lb/100 gal	+4" wds	B						
12	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	99	217	19.0	24.2	284.5
12	AMS		WG	17	lb/100 gal	2" weeds	A						
12	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
12	UpBeet	50	DG	0.5	oz/a	+4" wds	B						
12	Destiny HC		L	0.5	% v/v	+4" wds	B						
12	AMS		WG	17	lb/100 gal	+4" wds	B						
13	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	99	196	18.9	18.8	276.8
13	AMS		WG	17	lb/100 gal	2" weeds	A						
13	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
13	UpBeet	50	DG	1	oz/a	+4" wds	B						
13	AMS		WG	17	lb/100 gal	+4" wds	B						
14	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	97	198	18.9	20.9	273.1
14	AMS		WG	17	lb/100 gal	2" weeds	A						
14	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
14	Stinger	3	L	1	fl oz/a	+4" wds	B						
14	AMS		WG	17	lb/100 gal	+4" wds	B						
15	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	98	207	18.7	21.8	272.5
15	AMS		WG	17	lb/100 gal	2" weeds	A						
15	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
15	Stinger	3	L	2	fl oz/a	+4" wds	B						
15	AMS		WG	17	lb/100 gal	+4" wds	B						
16	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	99	98	205	18.4	23.2	267.0
16	AMS		WG	17	lb/100 gal	2" weeds	A						
16	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B						
16	Stinger	3	L	4	fl oz/a	+4" wds	B						
16	AMS		WG	17	lb/100 gal	+4" wds	B						
LSD (P=.05)								0.9	2.7	24.3	0.65	3.75	11.73
Standard Deviation								0.6	1.9	17.0	0.46	2.63	8.21
CV								0.64	1.93	8.32	2.45	12.66	3.01

MSU Weed Science Research Program

Control of volunteer Roundup Ready soybean in Roundup Ready sugarbeet

Trial ID: SB06-10
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy SpragueWeed Code
Crop Code BETVU
Rating Data Type RWSA
Rating Unit #/acre
Rating Date 9/14/2010
Trt-Eval Interval 121 DA-A
Subsamples, Dec. 0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5022
1	UpBeet	50	DG	0.5	oz/a	2" weeds	A	
1	AMS		WG	17	lb/100 gal	2" weeds	A	
1	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
1	AMS		WG	17	lb/100 gal	+4" wds	B	
2	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5171
2	UpBeet	50	DG	0.5	oz/a	2" weeds	A	
2	Herbimax (COC)		L	1	% v/v	2" weeds	A	
2	AMS		WG	17	lb/100 gal	2" weeds	A	
2	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
2	AMS		WG	17	lb/100 gal	+4" wds	B	
3	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5293
3	UpBeet	50	DG	0.5	oz/a	2" weeds	A	
3	Destiny HC (HSOC)		L	0.5	% v/v	2" weeds	A	
3	AMS		WG	17	lb/100 gal	2" weeds	A	
3	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
3	AMS		WG	17	lb/100 gal	+4" wds	B	
4	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	6077
4	UpBeet	50	DG	0.5	oz/a	2" weeds	A	
4	AMS		WG	17	lb/100 gal	2" weeds	A	
4	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
4	UpBeet	50	DG	0.5	oz/a	+4" wds	B	
4	AMS		WG	17	lb/100 gal	+4" wds	B	
5	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5824
5	UpBeet	50	DG	1	oz/a	2" weeds	A	
5	AMS		WG	17	lb/100 gal	2" weeds	A	
5	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
5	AMS		WG	17	lb/100 gal	+4" wds	B	
6	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	6639
6	Stinger	3	L	1	fl oz/a	2" weeds	A	
6	AMS		WG	17	lb/100 gal	2" weeds	A	
6	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
6	AMS		WG	17	lb/100 gal	+4" wds	B	
7	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5958
7	Stinger	3	L	2	fl oz/a	2" weeds	A	
7	AMS		WG	17	lb/100 gal	2" weeds	A	
7	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
7	AMS		WG	17	lb/100 gal	+4" wds	B	
8	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	6177
8	Stinger	3	L	4	fl oz/a	2" weeds	A	
8	AMS		WG	17	lb/100 gal	2" weeds	A	
8	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
8	AMS		WG	17	lb/100 gal	+4" wds	B	
9	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	4543
9	AMS		WG	17	lb/100 gal	2" weeds	A	
9	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
9	AMS		WG	17	lb/100 gal	+4" wds	B	

MSU Weed Science Research Program

Control of volunteer Roundup Ready soybean in Roundup Ready sugarbeet

Trial ID: SB06-10
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code	
Crop Code	BETVU
Rating Data Type	RWSA
Rating Unit	#/acre
Rating Date	9/14/2010
Trt-Eval Interval	121 DA-A
# Subsamples, Dec.	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
10	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	4958
10	AMS		WG	17	lb/100 gal	2" weeds	A	
10	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
10	UpBeet	50	DG	0.5	oz/a	+4" wds	B	
10	AMS		WG	17	lb/100 gal	+4" wds	B	
11	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	4926
11	AMS		WG	17	lb/100 gal	2" weeds	A	
11	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
11	UpBeet	50	DG	0.5	oz/a	+4" wds	B	
11	Herbimax (COC)		L	1	% v/v	+4" wds	B	
11	AMS		WG	17	lb/100 gal	+4" wds	B	
12	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	6879
12	AMS		WG	17	lb/100 gal	2" weeds	A	
12	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
12	UpBeet	50	DG	0.5	oz/a	+4" wds	B	
12	Destiny HC		L	0.5	% v/v	+4" wds	B	
12	AMS		WG	17	lb/100 gal	+4" wds	B	
13	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5194
13	AMS		WG	17	lb/100 gal	2" weeds	A	
13	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
13	UpBeet	50	DG	1	oz/a	+4" wds	B	
13	AMS		WG	17	lb/100 gal	+4" wds	B	
14	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5711
14	AMS		WG	17	lb/100 gal	2" weeds	A	
14	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
14	Stinger	3	L	1	fl oz/a	+4" wds	B	
14	AMS		WG	17	lb/100 gal	+4" wds	B	
15	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	5911
15	AMS		WG	17	lb/100 gal	2" weeds	A	
15	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
15	Stinger	3	L	2	fl oz/a	+4" wds	B	
15	AMS		WG	17	lb/100 gal	+4" wds	B	
16	Roundup PowerMax	4.5	L	22	fl oz/a	2" weeds	A	6210
16	AMS		WG	17	lb/100 gal	2" weeds	A	
16	Roundup PowerMax	4.5	L	22	fl oz/a	+4" wds	B	
16	Stinger	3	L	4	fl oz/a	+4" wds	B	
16	AMS		WG	17	lb/100 gal	+4" wds	B	
LSD (P=.05)								1032.2
Standard Deviation								722.3
CV								12.77