

MSU Weed Science Research Program

Evaluation of V-10206 in Roundup Ready sugarbeet

Trial ID: SB03-13
 Conducted: SVREC

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: May/02/2013
Variety: HM-173RR
Population: 4 3/8" spacing
Soil Type: Clay loam
Plot Size: 10 X 30 FT
Row Spacing: 30 IN
No. of Reps: 4
% OM: 3.2
pH: 8.0
Design: RANDOMIZED COMPLETE BLOCK

Tillage: Previous crop wheat. Fall moldboard plow, spring field cultivate and soil finish.

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
2.	AMARE	PIGWEEED, REDROOT	AMARANTHUS RETROFLEXUS L.
Crop	Code	Common Name	
1.	BETVU	BEET, SUGAR	

Application Description

Application Timing: POST
Date Treated: Jun/03/2013
Time Treated: 12:00 PM
% Cloud Cover: 10
Air Temp., Unit: 55 F
% Relative Humidity: 20
Wind Speed/Unit/Dir: 4 mph NW
Soil Temp., Unit: 61 F
Soil/Leaf Surface M: 4 4
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

A
Crop Name: BETVU
Height (In.): 1.5"
Stage (L): 2

Weed Stage at Each Application

A
Weed 1 Name: CHEAL
Height (In.): 2"
Stage (L): 8
Weed 2 Name: AMARE
Height (In.): 1"
Stage (L): 4

Weed Density (plants/sq. ft.)

Weed Name:	1	2
CHEAL	4	<1
AMARE		

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
A	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	24"	20"	100"	19	water	28

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Weed Code	CHEAL	AMARE	CHEAL
Crop Code	BETVU		BETVU
Rating Data Type	injury	control	injury
Rating Unit	percent	percent	percent
Rating Date	Jun/13/2013	Jun/13/2013	Jun/18/2013
Trt-Eval Interval	10 DA-A	10 DA-A	15 DA-A
# Subsamples, Dec.	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Roundup PowerMax AMS	4.5	SL	32	fl oz/a	POST	A	0	99	99	1	99
			WG	17	lb/100 gal	POST	A					
2	Roundup PowerMax Warrant AMS	4.5	SL	32	fl oz/a	POST	A	3	99	99	4	99
		3	L	3	pt/a	POST	A					
			WG	17	lb/100 gal	POST	A					
3	Roundup PowerMax Dual II Magnum AMS	4.5	SL	32	fl oz/a	POST	A	2	99	99	3	99
		7.64	L	1.33	pt/a	POST	A					
			WG	17	lb/100 gal	POST	A					
4	Untreated							0	0	0	0	0
5	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST	A	21	99	99	20	99
		85	WG	1.5	oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
6	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST	A	23	99	99	23	99
		85	WG	2	oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
7	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST	A	24	99	99	25	99
		85	WG	2.5	oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
8	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST	A	26	99	99	24	99
		85	WG	3	oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
LSD (P=.05)								4.2	0.3	0.0	4.5	0.4
CV								23.28	0.2	0.0	24.54	0.3

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code			AMARE		CHEAL		AMARE		BETVU		
Crop Code			control		control		control		injury		
Rating Data Type			percent		percent		percent		percent		
Rating Unit			percent		percent		percent		percent		
Rating Date			Jun/18/2013		Jun/26/2013		Jun/26/2013		Jun/26/2013		
Trt-Eval Interval			15 DA-A		23 DA-A		23 DA-A		30 DA-A		
# Subsamples, Dec.			0		0		0		0		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup PowerMax AMS	4.5	SL	32	fl oz/a	POST A	99	1	98	99	0
			WG	17	lb/100 gal	POST A					
2	Roundup PowerMax Warrant AMS	4.5	SL	32	fl oz/a	POST A	99	3	98	99	2
		3	L	3	pt/a	POST A					
			WG	17	lb/100 gal	POST A					
3	Roundup PowerMax Dual II Magnum AMS	4.5	SL	32	fl oz/a	POST A	99	1	98	99	1
		7.64	L	1.33	pt/a	POST A					
			WG	17	lb/100 gal	POST A					
4	Untreated						0	0	0	0	0
5	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	99	21	99	99	4
		85	WG	1.5	oz/a	POST A					
			WG	17	lb/100 gal	POST A					
6	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	99	23	99	99	4
		85	WG	2	oz/a	POST A					
			WG	17	lb/100 gal	POST A					
7	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	99	23	99	99	5
		85	WG	2.5	oz/a	POST A					
			WG	17	lb/100 gal	POST A					
8	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	99	23	99	99	7
		85	WG	3	oz/a	POST A					
			WG	17	lb/100 gal	POST A					
LSD (P=.05)							0.0	3.9	0.8	0.0	1.9
CV							0.0	22.28	0.61	0.0	45.52

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code	CHEAL	AMARE		CHEAL	AMARE
Crop Code			BETVU		
Rating Data Type	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jul/03/2013	Jul/03/2013	Jul/17/2013	Jul/17/2013	Jul/17/2013
Trt-Eval Interval	30 DA-A	30 DA-A	44 DA-A	44 DA-A	44 DA-A
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code					
1	Roundup PowerMax AMS	4.5	SL	32	fl oz/a	POST A		90	98	0	85	99
			WG	17	lb/100 gal	POST A						
2	Roundup PowerMax Warrant AMS	4.5	SL	32	fl oz/a	POST A		93	99	0	95	99
		3	L	3	pt/a	POST A						
			WG	17	lb/100 gal	POST A						
3	Roundup PowerMax Dual II Magnum AMS	4.5	SL	32	fl oz/a	POST A		95	99	0	94	99
		7.64	L	1.33	pt/a	POST A						
			WG	17	lb/100 gal	POST A						
4	Untreated							0	0	0	0	0
5	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A		99	99	0	96	99
		85	WG	1.5	oz/a	POST A						
			WG	17	lb/100 gal	POST A						
6	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A		98	99	0	98	99
		85	WG	2	oz/a	POST A						
			WG	17	lb/100 gal	POST A						
7	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A		98	99	0	93	99
		85	WG	2.5	oz/a	POST A						
			WG	17	lb/100 gal	POST A						
8	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A		99	99	3	99	99
		85	WG	3	oz/a	POST A						
			WG	17	lb/100 gal	POST A						
LSD (P=.05)								2.0	1.0	1.7	7.6	0.0
CV								1.66	0.82	375.23	6.26	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code										
Crop Code							BETVU	CHEAL	AMARE	BETVU
Rating Data Type							injury	control	control	stand count
Rating Unit							percent	percent	percent	100' row
Rating Date							Sep/21/2013	Sep/21/2013	Sep/21/2013	Sep/24/2013
Trt-Eval Interval							110 DA-A	110 DA-A	110 DA-A	113 DA-A
# Subsamples, Dec.							0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup PowerMax AMS	4.5	SL	32	fl oz/a	POST A	A	0	71	99	192
			WG	17	lb/100 gal	POST A	A				
2	Roundup PowerMax Warrant AMS	4.5	SL	32	fl oz/a	POST A	A	0	84	99	192
		3	L	3	pt/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
3	Roundup PowerMax Dual II Magnum AMS	4.5	SL	32	fl oz/a	POST A	A	0	92	99	202
		7.64	L	1.33	pt/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
4	Untreated							0	0	0	199
5	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	0	96	99	196
		85	WG	1.5	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
6	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	0	96	99	209
		85	WG	2	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
7	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	0	92	99	199
		85	WG	2.5	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
8	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	0	99	99	205
		85	WG	3	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
LSD (P=.05)								0.0	8.6	0.0	29.0
CV								0.0	7.42	0.0	9.88

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code									
Crop Code						BETVU	BETVU	BETVU	BETVU
Rating Data Type						% sugar	yield	RWST	RWSA
Rating Unit							ton/acre	# / ton	# / acre
Rating Date						Sep/25/2013	Sep/25/2013	Sep/25/2013	Sep/25/2013
Trt-Eval Interval						114 DA-A	114 DA-A	114 DA-A	114 DA-A
# Subsamples, Dec.						1	1	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup PowerMax AMS	4.5	SL	32	fl oz/a	POST A	A	19.9	21.1	298	6299
			WG	17	lb/100 gal	POST A	A				
2	Roundup PowerMax Warrant AMS	4.5	SL	32	fl oz/a	POST A	A	19.6	21.0	296	6212
		3	L	3	pt/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
3	Roundup PowerMax Dual II Magnum AMS	4.5	SL	32	fl oz/a	POST A	A	19.9	21.3	299	6374
		7.64	L	1.33	pt/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
4	Untreated							19.6	15.7	295	4603
5	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	19.6	19.7	293	5780
		85	WG	1.5	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
6	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	19.8	21.2	297	6299
		85	WG	2	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
7	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	20.5	20.6	307	6345
		85	WG	2.5	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
8	Roundup PowerMax V-10206 AMS	4.5	SL	32	fl oz/a	POST A	A	19.2	19.7	284	5585
		85	WG	3	oz/a	POST A	A				
			WG	17	lb/100 gal	POST A	A				
LSD (P=.05)								1.15	3.41	18.0	977.2
CV								3.96	11.55	4.12	11.19

Means followed by same letter do not significantly differ (P=.05, LSD)