

MSU Weed Science Research Program

Replanted sugarbeet tolerance to Warrant

Trial ID: SB04-12
Conducted: SVREC

Study Dir.: Sprague, Powell
Investigator: Christy Sprague

Date Planted:	Apr/04/2012	Row Spacing:	30" IN
Variety:	Hilleshog 9042	No. of Reps:	4
Population:	48,000 seeds/A	% OM:	2.2
Soil Type:	Clay loam	pH:	7.8
Plot Size:	10 X 30 FT	Design:	RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel; spring soil finished twice

Previous crop: Wheat

Fertilizer: Preplant urea: 125 lb actual N/A

Crop Code	Common Name
1. BETVU	BEET, SUGAR

Application Description

	A
Application Timing:	PRE
Date Treated:	Apr/04/2012
Time Treated:	7:15 PM
% Cloud Cover:	0
Air Temp., Unit:	52 F
% Relative Humidity:	36
Wind Speed/Unit/Dir:	3 mph NE
Soil Temp., Unit:	53 F
Soil/Leaf Surface M:	5 5
Soil Moist (1=w 5=d):	5

Crop Stage at Each Application

	A
Crop Name:	BETVU
Height (In.):	-
Stage (L):	-

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom
A	Cub	3.8	AirMix	11003	20"	20"	100" 19 Water 28

Comments: Sugarbeets were planted on:

- At PRE - April 4
- 1 week after - April 11
- 2 weeks after - April 18
- 3 weeks after - April 25
- 4 weeks after - May 2
- 5 weeks after - May 9
- 6 weeks after - May 16

Study was kept weed-free with multiple applications of Roundup PowerMax (22 fl oz/A) + AMS (17 lb/100 gal). Visual observations for injury were difficult to evaluate for the later planting dates, due to variable weather conditions after the later plantings.

MSU Weed Science Research Program

Replanted sugarbeet tolerance to Warrant

Trial ID: SB04-12
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Crop Code	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU
Rating Data Type	injury	count	count	yield	% sugar	RWST
Rating Unit	percent	100' row	100' row	ton/acre		# / ton
Rating Date			Sep/11/2012	Sep/11/2012	Sep/11/2012	Sep/11/2012
Trt-Eval Interval	6 WAP	6 WAP	160 DA-A	160 DA-A	160 DA-A	160 DA-A
ARM Action Codes			T1	TY2		
# Subsamples, Dec.	0	0	0	1	1	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Code						
1	Early Planting - PRE No PRE							0	122	121	20.3	16.3	233
2	Early Planting - PRE Warrant	3	L	3	pt/a	PRE	A	13	112	112	22.9	15.9	225
3	Early Planting - PRE Warrant	3	L	6	pt/a	PRE	A	40	108	116	21.9	16.3	233
4	Early Planting - PRE Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	19	105	98	20.1	16.2	229
5	Planting - 1 wk after No PRE							0	151	143	21.1	16.4	238
6	Planting - 1 wk after Warrant	3	L	3	pt/a	PRE	A	19	129	123	22.8	15.6	221
7	Planting - 1 wk after Warrant	3	L	6	pt/a	PRE	A	43	112	117	23.5	15.9	225
8	Planting - 1 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	16	121	120	25.0	16.3	234
9	Planting - 2 wk after No PRE							0	114	106	18.3	15.2	210
10	Planting - 2 wk after Warrant	3	L	3	pt/a	PRE	A	0	77	68	17.0	14.5	198
11	Planting - 2 wk after Warrant	3	L	6	pt/a	PRE	A	0	97	92	18.9	14.8	200
12	Planting - 2 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	0	102	101	19.3	15.3	211
13	Planting - 3 wk after No PRE							0	109	96	17.4	14.7	204
14	Planting - 3 wk after Warrant	3	L	3	pt/a	PRE	A	48	64	53	14.2	13.4	184
15	Planting - 3 wk after Warrant	3	L	6	pt/a	PRE	A	56	56	56	17.0	14.2	195
16	Planting - 3 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	23	85	81	21.2	15.0	210
17	Planting - 4 wk after No PRE							33	56	51	10.9	13.8	185
18	Planting - 4 wk after Warrant	3	L	3	pt/a	PRE	A	43	43	41	11.0	13.4	177
19	Planting - 4 wk after Warrant	3	L	6	pt/a	PRE	A	60	36	33	10.3	13.2	173
20	Planting - 4 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	23	65	49	14.6	14.1	189
21	Planting - 5 wk after No PRE								86	85	16.1	14.9	207
22	Planting - 5 wk after Warrant	3	L	3	pt/a	PRE	A		62	58	12.3	14.4	199
23	Planting - 5 wk after Warrant	3	L	6	pt/a	PRE	A		54	57	13.0	14.2	196
24	Planting - 5 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A		83	83	18.4	14.8	203
25	Planting - 6 wk after No PRE								56	53	8.3	13.7	185

MSU Weed Science Research Program

Crop Code	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU
Rating Data Type	injury	count	count	yield	% sugar	RWST
Rating Unit	percent	100' row	100' row	ton/acre		# / ton
Rating Date			Sep/11/2012	Sep/11/2012	Sep/11/2012	Sep/11/2012
Trt-Eval Interval	6 WAP	6 WAP	160 DA-A	160 DA-A	160 DA-A	160 DA-A
ARM Action Codes			T1	TY2		
# Subsamples, Dec.	0	0	0	1	1	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Code						
26	Planting - 6 wk after Warrant	3	L	3	pt/a	PRE	A	54	48	9.7	13.7	186	
27	Planting - 6 wk after Warrant	3	L	6	pt/a	PRE	A	49	48	10.6	13.9	188	
28	Planting - 6 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	83	78	14.6	14.0	191	
LSD (P=.05)								13.3	24.0	27.1	4.64	0.85	15.6
CV								43.6	19.94	23.46	19.52	4.06	5.39

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

MSU Weed Science Research Program

Crop Code BETVU
 Rating Data Type RWSA
 Rating Unit # / acre
 Rating Date Sep/11/2012
 Trt-Eval Interval 160 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	
1	Early Planting - PRE No PRE							4715
2	Early Planting - PRE Warrant	3	L	3	pt/a	PRE	A	5174
3	Early Planting - PRE Warrant	3	L	6	pt/a	PRE	A	5119
4	Early Planting - PRE Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	4639
5	Planting - 1 wk after No PRE							4984
6	Planting - 1 wk after Warrant	3	L	3	pt/a	PRE	A	5066
7	Planting - 1 wk after Warrant	3	L	6	pt/a	PRE	A	5309
8	Planting - 1 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	5839
9	Planting - 2 wk after No PRE							3836
10	Planting - 2 wk after Warrant	3	L	3	pt/a	PRE	A	3362
11	Planting - 2 wk after Warrant	3	L	6	pt/a	PRE	A	3776
12	Planting - 2 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	4086
13	Planting - 3 wk after No PRE							3552
14	Planting - 3 wk after Warrant	3	L	3	pt/a	PRE	A	2674
15	Planting - 3 wk after Warrant	3	L	6	pt/a	PRE	A	3326
16	Planting - 3 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	4469
17	Planting - 4 wk after No PRE							2022
18	Planting - 4 wk after Warrant	3	L	3	pt/a	PRE	A	1962
19	Planting - 4 wk after Warrant	3	L	6	pt/a	PRE	A	1771
20	Planting - 4 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	2764
21	Planting - 5 wk after No PRE							3329
22	Planting - 5 wk after Warrant	3	L	3	pt/a	PRE	A	2459
23	Planting - 5 wk after Warrant	3	L	6	pt/a	PRE	A	2544
24	Planting - 5 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	3755
25	Planting - 6 wk after No PRE							1550
26	Planting - 6 wk after Warrant	3	L	3	pt/a	PRE	A	1789
27	Planting - 6 wk after Warrant	3	L	6	pt/a	PRE	A	1997
28	Planting - 6 wk after Dual II Magnum	7.62	L	1.33	pt/a	PRE	A	2758

LSD (P=.05) 1055.6

CV 21.19

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