

MSU Weed Science Research Program

Replanted sugarbeet tolerance to Warrant

Trial ID: SB06-11 Study Dir.: Sprague, Powell
Conducted: SVREC Investigator: Christy Sprague

Date Planted: Variety: Hilleshog 9042 Row Spacing: 30 IN
No. of Reps: 4
Population: 4 1/4" spacing % OM: 2.8
Soil Type: Clay Loam pH: 7.9
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall moldboard plow, spring field cultivated (once)
Fertilizer: Urea (125 lb/A of nitrogen) was broadcast and incorporated prior to planting.
Crop Code Common Name
1. BEAVA BEET, SUGAR

Application Description

A
Application Timing: PRE
Date Treated: 5/4/2011
Time Treated: 6:45 pm
% Cloud Cover: 0
Air Temp., Unit: 63 F
% Relative Humidity: 28
Wind Speed/Unit/Dir: 3 mph SW
Soil Temp., Unit: - F
Soil/Leaf Surface M: 5 -
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

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

Application Equipment

Table with 12 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Nozzle, Boom, Width, GPA, Carrier, PSI. Row A: Cub, 3.8, AirMix, 11003, 21", 20", 100", 19, Water, 28

Comments: Planting dates:
Planting 1: May 4, 2011;
Planting 2: May 11, 2011;
Planting 3: May 17, 2011;
Planting 4: May 24, 2011;
Planting 5: May 31, 2011;
Planting 6: June 8, 2011

All treatments were maintained weed-free throughout the growing season with applications of Roundup PowerMax (22 fl oz/A) + AMS (17 lb/100 gal).

Replanted sugarbeet tolerance to Warrant

Trial ID: SB06-11
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

Subsamples, Dec.

BETVU count 100' row 6/2/2011 29 DA-A 0	BETVU injury percent 6/9/2011 36 DA-A 0	BETVU count 100' row 6/9/2011 36 DA-A 0	BETVU injury percent 6/14/2011 41 DA-A 0	BETVU count 100' row 6/14/2011 41 DA-A 0	BETVU injury percent 6/20/2011 47 DA-A 0	BETVU count 100' row 6/20/2011 47 DA-A 0
--	--	--	---	---	---	---

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Stg	Appl Code	BETVU count 100' row 6/2/2011 29 DA-A 0	BETVU injury percent 6/9/2011 36 DA-A 0	BETVU count 100' row 6/9/2011 36 DA-A 0	BETVU injury percent 6/14/2011 41 DA-A 0	BETVU count 100' row 6/14/2011 41 DA-A 0	BETVU injury percent 6/20/2011 47 DA-A 0	BETVU count 100' row 6/20/2011 47 DA-A 0
1	Early Planting - PRE							225	0		0			
1	No PRE													
2	Early Planting - PRE							214	11		16			
2	Warrant	3	L	3	pt/a	PRE	A							
3	Early Planting - PRE							205	23		31			
3	Warrant	3	L	6	pt/a	PRE	A							
4	Early Planting - PRE							211	15		16			
4	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A							
5	Planting - 1 wk after								0	212	0			
5	No PRE													
6	Planting - 1 wk after								23	161	23			
6	Warrant	3	L	3	pt/a	PRE	A							
7	Planting - 1 wk after								41	130	35			
7	Warrant	3	L	6	pt/a	PRE	A							
8	Planting - 1 wk after								25	167	23			
8	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A							
9	Planting - 2 wk after										0	171		
9	No PRE													
10	Planting - 2 wk after										11	132		
10	Warrant	3	L	3	pt/a	PRE	A							
11	Planting - 2 wk after										31	110		
11	Warrant	3	L	6	pt/a	PRE	A							
12	Planting - 2 wk after										13	135		
12	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A							
13	Planting - 3 wk after											0	162	
13	No PRE													
14	Planting - 3 wk after											16	133	
14	Warrant	3	L	3	pt/a	PRE	A							
15	Planting - 3 wk after											44	98	
15	Warrant	3	L	6	pt/a	PRE	A							
16	Planting - 3 wk after											20	123	
16	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A							
17	Planting - 4 wk after													
17	No PRE													
18	Planting - 4 wk after													
18	Warrant	3	L	3	pt/a	PRE	A							
19	Planting - 4 wk after													
19	Warrant	3	L	6	pt/a	PRE	A							
20	Planting - 4 wk after													
20	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A							

Replanted sugarbeet tolerance to Warrant

Trial ID: SB06-11 Study Dir.: Sprague, Powell
Conducted: SVREC Investigator: Christy Sprague

Weed Code	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU
Crop Code	count	injury	count	injury	count	injury	count
Rating Data Type	100' row	percent	100' row	percent	100' row	percent	100' row
Rating Unit	6/2/2011	6/9/2011	6/9/2011	6/14/2011	6/14/2011	6/20/2011	6/20/2011
Rating Date	29 DA-A	36 DA-A	36 DA-A	41 DA-A	41 DA-A	47 DA-A	47 DA-A
Trt-Eval Interval	0	0	0	0	0	0	0
# Subsamples, Dec.							

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Code
21	Planting - 5 wk after						
21	No PRE						
22	Planting - 5 wk after						
22	Warrant	3	L	3	pt/a	PRE	A
23	Planting - 5 wk after						
23	Warrant	3	L	6	pt/a	PRE	A
24	Planting - 5 wk after						
24	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A

LSD (P=.05)	19.0	4.0	31.4	7.1	24.7	8.0	20.3
Standard Deviation	11.9	2.7	19.6	4.9	15.5	5.0	12.7
CV	5.57	15.71	11.7	29.81	11.28	25.0	9.85

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Replanted sugarbeet tolerance to Warrant

Trial ID: SB06-11
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU
Crop Code	count	injury	count	injury	count	% sugar	yield
Rating Data Type	100' row	percent	100' row	percent	100' row		ton/acre
Rating Unit	6/27/2011	7/5/2011	7/5/2011	7/14/2011	9/15/2011	9/15/2011	9/15/2011
Rating Date	54 DA-A	62 DA-A	62 DA-A	71 DA-A	134 DA-A	134 DA-A	134 DA-A
Trt-Eval Interval	0	0	0	0	0	1	1
# Subsamples, Dec.							

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Code				
1	Early Planting - PRE							0	225	19.2	21.7
1	No PRE										
2	Early Planting - PRE							1	213	19.2	21.9
2	Warrant	3	L	3	pt/a	PRE	A				
3	Early Planting - PRE							5	220	18.5	19.5
3	Warrant	3	L	6	pt/a	PRE	A				
4	Early Planting - PRE							2	223	18.4	20.3
4	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A				
5	Planting - 1 wk after							0	206	19.1	21.3
5	No PRE										
6	Planting - 1 wk after							2	159	18.4	20.5
6	Warrant	3	L	3	pt/a	PRE	A				
7	Planting - 1 wk after							6	129	18.0	15.9
7	Warrant	3	L	6	pt/a	PRE	A				
8	Planting - 1 wk after							1	173	18.3	19.8
8	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A				
9	Planting - 2 wk after							0	172	18.1	17.2
9	No PRE										
10	Planting - 2 wk after							5	139	17.5	19.1
10	Warrant	3	L	3	pt/a	PRE	A				
11	Planting - 2 wk after							15	116	17.8	13.9
11	Warrant	3	L	6	pt/a	PRE	A				
12	Planting - 2 wk after							2	141	17.5	17.2
12	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A				
13	Planting - 3 wk after							0	158	18.2	18.6
13	No PRE										
14	Planting - 3 wk after							1	148	17.3	18.6
14	Warrant	3	L	3	pt/a	PRE	A				
15	Planting - 3 wk after							11	107	16.2	14.2
15	Warrant	3	L	6	pt/a	PRE	A				
16	Planting - 3 wk after							0	128	16.9	18.3
16	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A				
17	Planting - 4 wk after							162	0	183	16.9
17	No PRE										15.4
18	Planting - 4 wk after							143	7	149	17.0
18	Warrant	3	L	3	pt/a	PRE	A				15.5
19	Planting - 4 wk after							113	13	130	16.5
19	Warrant	3	L	6	pt/a	PRE	A				13.8
20	Planting - 4 wk after							160	2	163	17.1
20	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A				14.3

Replanted sugarbeet tolerance to Warrant

Trial ID: SB06-11 Study Dir.: Sprague, Powell
Conducted: SVREC Investigator: Christy Sprague

Weed Code	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU
Crop Code	count	injury	count	injury	count	% sugar	yield
Rating Data Type	100' row	percent	100' row	percent	100' row		ton/acre
Rating Unit	6/27/2011	7/5/2011	7/5/2011	7/14/2011	9/15/2011	9/15/2011	9/15/2011
Rating Date	54 DA-A	62 DA-A	62 DA-A	71 DA-A	134 DA-A	134 DA-A	134 DA-A
Trt-Eval Interval	0	0	0	0	0	1	1
# Subsamples, Dec.							

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Code	BETVU count	BETVU injury percent	BETVU count	BETVU injury percent	BETVU count	BETVU % sugar	BETVU yield ton/acre
21	Planting - 5 wk after							0	207	0	189	16.6	14.3	
21	No PRE													
22	Planting - 5 wk after							0	209	0	193	16.8	15.4	
22	Warrant	3	L	3	pt/a	PRE	A							
23	Planting - 5 wk after							4	205	2	191	16.1	14.4	
23	Warrant	3	L	6	pt/a	PRE	A							
24	Planting - 5 wk after							0	209	1	195	17.4	13.8	
24	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A							

LSD (P=.05)	20.4	6.0	21.8	4.4	23.0	0.84	3.29
Standard Deviation	12.7	3.8	13.6	3.1	16.3	0.59	2.33
CV	8.83	400.0	6.55	100.55	9.64	3.35	13.48

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Replanted sugarbeet tolerance to Warrant

Trial ID: SB06-11
Conducted: SVRECStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code		
Crop Code	BETVU	BETVU
Rating Data Type	RWST	RWSA
Rating Unit	# / ton	# / acre
Rating Date	9/15/2011	9/15/2011
Trt-Eval Interval	134 DA-A	134 DA-A
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	Early Planting - PRE							276	6007
1	No PRE								
2	Early Planting - PRE							274	6014
2	Warrant	3	L	3	pt/a	PRE	A		
3	Early Planting - PRE							265	5177
3	Warrant	3	L	6	pt/a	PRE	A		
4	Early Planting - PRE							263	5326
4	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A		
5	Planting - 1 wk after							274	5837
5	No PRE								
6	Planting - 1 wk after							263	5379
6	Warrant	3	L	3	pt/a	PRE	A		
7	Planting - 1 wk after							253	4030
7	Warrant	3	L	6	pt/a	PRE	A		
8	Planting - 1 wk after							257	5099
8	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A		
9	Planting - 2 wk after							254	4380
9	No PRE								
10	Planting - 2 wk after							247	4737
10	Warrant	3	L	3	pt/a	PRE	A		
11	Planting - 2 wk after							251	3511
11	Warrant	3	L	6	pt/a	PRE	A		
12	Planting - 2 wk after							246	4239
12	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A		
13	Planting - 3 wk after							260	4831
13	No PRE								
14	Planting - 3 wk after							240	4453
14	Warrant	3	L	3	pt/a	PRE	A		
15	Planting - 3 wk after							224	3171
15	Warrant	3	L	6	pt/a	PRE	A		
16	Planting - 3 wk after							234	4318
16	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A		
17	Planting - 4 wk after							236	3634
17	No PRE								
18	Planting - 4 wk after							237	3663
18	Warrant	3	L	3	pt/a	PRE	A		
19	Planting - 4 wk after							229	3168
19	Warrant	3	L	6	pt/a	PRE	A		
20	Planting - 4 wk after							240	3431
20	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A		

Replanted sugarbeet tolerance to Warrant

Trial ID: SB06-11 Study Dir.: Sprague, Powell
Conducted: SVREC Investigator: Christy Sprague

Weed Code		
Crop Code	BETVU	BETVU
Rating Data Type	RWST	RWSA
Rating Unit	# / ton	# / acre
Rating Date	9/15/2011	9/15/2011
Trt-Eval Interval	134 DA-A	134 DA-A
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
21	Planting - 5 wk after							232	3326
21	No PRE								
22	Planting - 5 wk after							233	3570
22	Warrant	3	L	3	pt/a	PRE	A		
23	Planting - 5 wk after							223	3208
23	Warrant	3	L	6	pt/a	PRE	A		
24	Planting - 5 wk after							244	3382
24	Dual II Magnum	7.62	L	1.33	pt/a	PRE	A		
LSD (P=.05)								14.9	915.2
Standard Deviation								10.5	647.1
CV								4.25	14.95

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.