

Effect of Row-width and Plant Population on Roundup Ready Sugarbeet III

Trial ID: SB13-08
 Conducted: H6-H8 Campus

Study Dir.: Armstrong, Powell, Sprague
 Investigator: Christy Sprague

Date Planted: 5/1/08
Variety: Hillshog 9028
Population: See comments
Soil Type: Sandy Loam
Plot Size: 10 X 30 FT

Row Spacing: 1 N
No. of Reps: 4
% OM: 2.5
pH: 6.9
Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow
 Fall soil finish
 Spring soil finish x2 on 4/29/08
Fertilizer: 200#/Acre Urea (92# N) broadcast on 3/16/08
 100#/Acre 19-19-19 applied with planter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
2.	LAMAM	HENBIT	LAMIUM AMPLEXICAULE L.
3.	AMASS	REDROOT PIGWEED, POWELL AMARANTH	AMARANTHUS SP.
4.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
5.	CAPBP	SHEPHERDSPURSE	CAPSELLA BURSA-PASTORIS (L.)
6.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.)
Crop	Code	Common Name	
1.	BETVU	BEEET, SUGAR	

Application Description

	A	B	C
Application Timing:	WF	WF	4" weeds
Date Treated:	6/5/08	6/12/08	6/17/08
Time Treated:	9:00 AM	9:00 AM	9:00 AM
% Cloud Cover:	100	90	90
Air Temp., Unit:	75 F	75 F	58 F
% Relative Humidity:	80	84	70
Wind Speed/Unit/Dir:	3 mph S	3 mph E	5 mph NW
Soil Temp., Unit:	66 F	70 F	62 F
Soil/Leaf Surface M:	3 5	3 5	5 5
Soil Moist (1=w 5=d):	3	3	3

Crop Stage at Each Application

	A	B	C
Crop Name:	BETVU	BETVU	BETVU
Height (In.):	2-3	6-8	6-8
Stage (L):	4	6-8	6-10

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	CHEAL	CHEAL	CHEAL
Height (In.):	1-2	2-6	6-8
Stage (L):	4-8	many	many
Weed 2 Name:	LAMAM	LAMAM	LAMAM
Height (In.):	.5	--	3-6
Stage (L):	4	--	flowering
Weed 3 Name:	AMASS	AMASS	AMASS
Height (In.):	.5	2-5	6-10
Stage (L):	2-4	6-many	many
Weed 4 Name:	ABUTH	ABUTH	ABUTH
Height (In.):	1-3	1-4	3-6
Stage (L):	2-4	2-4	4
Weed 5 Name:	CAPBP	CAPBP	CAPBP
Height (In.):	--	--	7-12
Stage (L):	--	--	flowering
Weed 6 Name:	STEME	STEME	STEME
Height (In.):	--	--	1-4
Stage (L):	--	--	veg-flwr

Weed Density (plants/sq. ft.)

	1	2	3	4	5	6	7	8	9
Date:	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08
Weed Name:	CAPSP	STEME	BRAKA	AMAPO	POROL	LAMAM	ANGR	POLPE	CHEAL
Density:	3.125	3	0.5	0.875	1.625	0.5	1.375	1.125	0.875

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Date: 10/7/25/08
 Weed Name: ABUTH
 Density: 0.125

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

Comments: 5/1/08: Planted Hillshog 9028 variety sugarbeets with 15" rows at 4" seed spacing and 30" rows at 2.8" seed spacing.

All 15" rows sprayed with BACKPACK at 3.4 MPH, AirMix nozzles, 11003, 26" boom height, 20" nozzle spacing, 100" boom width, 19 GPA, H2O carrier, 34 psi.

Previous Crop: Soybean

MSU Weed Science Research Program

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Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

BETVU	BETVU	BETVU	BETVU
% Sugar	yield	RWST	RWSA
	ton/acre	#/ton	#/acre
10/2/08	10/2/08	10/2/08	10/2/08
119 DA-A	119 DA-A	119 DA-A	119 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	BETVU % Sugar	BETVU yield ton/acre	BETVU RWST #/ton	BETVU RWSA #/acre
1	30" rows, 126 beets/100'							15.3	31.4	220.4	6939
1	Weed free										
2	30" rows, 126 beets/100'							15.6	26.1	227.2	5934
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	A				
2	AMS		WG	17	lb/100 gal	4" weeds	A				
3	30" rows, 180 beets/100'							15.5	29.8	227.1	6772
3	Weed free										
4	30" rows, 180 beets/100'							15.9	24.1	233.0	5608
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	A				
4	AMS		WG	17	lb/100 gal	4" weeds	A				
5	15" rows, 63 beets/100'							15.4	28.3	222.6	6321
5	Weed free										
6	15" rows, 63 beets/100'							15.4	20.6	225.6	4687
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	A				
6	AMS		WG	17	lb/100 gal	4" weeds	A				
7	15" rows, 90 beets/100'							15.5	32.9	224.3	7382
7	Weed free										
8	15" rows, 90 beets/100'							15.8	28.6	234.0	6679
8	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	A				
8	AMS		WG	17	lb/100 gal	4" weeds	A				
9	15" rows, 117 beets/100'							15.5	33.1	223.0	7374
9	Weed free										
10	15" rows, 117 beets/100'							15.6	28.0	225.7	6306
10	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	A				
10	AMS		WG	17	lb/100 gal	4" weeds	A				
11	15" rows, 144 beets/100'							15.7	37.4	228.2	8517
11	Weed free										
12	15" rows, 144 beets/100'							15.9	30.0	233.7	7005
12	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	A				
12	AMS		WG	17	lb/100 gal	4" weeds	A				
13	30" rows, 234 beets/100'							15.8	27.9	229.4	6396
13	Weed free										
14	30" rows, 234 beets/100'							15.6	23.5	226.5	5310
14	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	A				
14	AMS		WG	17	lb/100 gal	4" weeds	A				

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Weed Code							BETVU	BETVU	BETVU	BETVU		
Crop Code							% Sugar	yield	RWST	RWSA		
Rating Data Type							ton/acre	#/ton	#/acre			
Rating Unit							10/2/08	10/2/08	10/2/08	10/2/08		
Rating Date							119 DA-A	119 DA-A	119 DA-A	119 DA-A		
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code					
15	30" rows, 288 beets/100'							15.3	29.4	221.1	6498	
15	Weed free											
16	30" rows, 288 beets/100'							15.7	23.6	228.9	5213	
16	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds A						
16	AMS		WG	17	lb/100 gal	4" weeds A						
LSD (P=.10)							0.51	5.41	9.76	1254.7		
Standard Deviation							0.43	4.54	8.19	1053.6		
CV							2.74	15.98	3.61	16.38		