

Weed Control Systems in Narrow-row Roundup Ready Sugarbeets III

Trial ID: SB14-08
 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: 18 IN
 No. of Reps: 4
 % OM: 2.5
 pH: 6.9
 Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow
 Fall soil finish
 Spring soil finish
 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.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
2.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIFOLIA L.
3.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
4.	AMASS	REDROOT PIGWEED, POWELL AMARANTH	AMARANTHUS SP.
5.	LAMAM	HENBIT	LAMIUM AMPLEXICAULE L.
6.	POLPE	LADYSTHUMB	POLYGONUM PERSICARIA L.
7.	CAPBP	SHEPHERDSPURSE	CAPSELLA BURSA-PASTORIS (L.)
Crop	Code	Common Name	
1.	BETVU	BEET, SUGAR	

Application Description

	A	B	C	D	E
Application Timing:	M1, WF	M2	M3, 2", WF	M4, 4"	4" weeds
Date Treated:	5/13/08	5/28/08	6/5/08	6/12/08	6/17/08
Time Treated:	12:30 PM	4:00 PM	9:30 AM	9:30 AM	9:00 AM
% Cloud Cover:	0	0	100	80	90
Air Temp., Unit:	65 F	67 F	75 F	75 F	58 F
% Relative Humidity:	48	28	80	84	70
Wind Speed/Unit/Dir:	8 mph SE	5 mph NE	3 S	3 mph E	4 mph NW
Soil Temp., Unit:	51 F	66 F	66 F	70 F	62 F
Soil/Leaf Surface M:	4 5	5 5	3 5	3 5	5 5
Soil Moist (1=w 5=d):	3	5	3	3	3

Crop Stage at Each Application

	A	B	C	D	E
Crop Name:	BETVU	BETVU	BETVU	BETVU	BETVU
Height (In.):	.25	1-1.5	2-3	6-8	6-8
Stage (L):	coty	coty-2	4	6-8	6-10

Weed Stage at Each Application

	A	B	C	D	E
Weed 1 Name:	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Height (In.):	.25	.25-1	.5-2	1-4	5-8
Stage (L):	coty	coty-2	coty-2	2-4	4
Weed 2 Name:	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
Height (In.):	.25	--	--	--	--
Stage (L):	coty	--	--	--	--
Weed 3 Name:	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL
Height (In.):	--	.25-.5	.5-2	2-6	6-10
Stage (L):	--	coty-4	2-6	6-many	many
Weed 4 Name:	AMASS	AMASS	AMASS	AMASS	AMASS
Height (In.):	--	.25-.5	.5-.75	2-6	6-8
Stage (L):	--	coty-2	2-4	6-many	many
Weed 5 Name:	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM
Height (In.):	--	--	.5-1	--	5-9
Stage (L):	--	--	2-8	--	flowering
Weed 6 Name:	POLPE	POLPE	POLPE	POLPE	POLPE
Height (In.):	--	--	--	2-5	5-7
Stage (L):	--	--	--	many	many
Weed 7 Name:	CAPBP	CAPBP	CAPBP	CAPBP	CAPBP
Height (In.):	--	--	--	2-6 dia	10-14
Stage (L):	--	--	--	rosette	flowering

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	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:	CHEAL	CAPSP	STEME	ANGR	POLPE	LAMAM	AMAPO	ABUTH	POROL
Density:	3.25	5	3.75	0.75	0.875	1.875	0.875	0.125	0.125

Application Equipment											
Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	GPA	Carrier	PSI	
	Type	MPH	Type	Size	Height	Spacing	Width				
A	Cub	3.8	AirMix	11003	22	20	100	19	water	28	
B	Cub	3.8	AirMix	11003	24	20	100	19	water	28	
C	Cub	3.8	AirMix	11003	24	20	100	19	water	28	
D	Cub	3.8	AirMix	11003	26	20	100	19	water	28	
E	Cub	3.8	AirMix	11003	26	20	100	19	water	28	

Comments: Hillshog 9028 Sugarbeets planted on 5/1/08 in 15" rows with 4" seed spacing and 30" rows with 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

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Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

BETVU % Sugar	BETVU yield ton/acre	BETVU RWST #/ton	BETVU RWSA #/acre
10/2/08	10/2/08	10/2/08	10/2/08
142 DA-A	142 DA-A	142 DA-A	142 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							14.9	27.5	216.7	5935
1	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C				
1	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C				
1	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	G				
1	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	G				
2	30" rows							14.8	26.1	212.5	5606
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C				
2	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C				
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	G				
2	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	G				
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout					
2	Ammonium sulfate		WG	17	lb/100 gal	Scout					
3	30" rows							14.9	28.9	220.2	6101
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D				
3	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D				
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	H				
3	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	H				
4	30" rows							15.2	28.8	213.3	6311
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D				
4	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D				
5	15" rows							15.1	32.9	220.6	7032
5	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C				
5	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C				
5	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	G				
5	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	G				
6	15" rows							15.3	26.4	222.1	5866
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C				
6	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C				
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	G				
6	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	G				
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout					
6	Ammonium sulfate		WG	17	lb/100 gal	Scout					
7	15" weeds							15.4	29.6	224.1	6538
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D				
7	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D				
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	H				
7	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	H				
8	15" rows							15.6	32.5	216.1	7402
8	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D				
8	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D				

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								BETVU	BETVU	BETVU	BETVU
								% Sugar	yield	RWST	RWSA
									ton/acre	#/ton	#/acre
								10/2/08	10/2/08	10/2/08	10/2/08
Trt-Eval Interval								142 DA-A	142 DA-A	142 DA-A	142 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
15	15" rows							15.3	34.4	223.7	7688
15	Weed-Free										
15	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 1	A				
15	Ammonium sulfate		WG	17	lb/100 gal	micro 1	A				
15	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	C				
15	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	C				
15	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout	F				
15	Ammonium sulfate		WG	17	lb/100 gal	Scout	F				
16	15" rows							15.2	33.6	219.6	7399
16	Betamix	1.3	EC	8	fl oz/a	micro 1	A				
16	Upbeet	50	DF	0.125	oz/a	micro 1	A				
16	Stinger	3	L	1	fl oz/a	micro 1	A				
16	MSO		L	1.5	% v/v	micro 1	A				
16	Betamix	1.3	EC	8	fl oz/a	micro 2	B				
16	Upbeet	50	DF	0.125	oz/a	micro 2	B				
16	Stinger	3	L	1	fl oz/a	micro 2	B				
16	MSO		L	1.5	% v/v	micro 2	B				
16	Betamix	1.3	EC	8	fl oz/a	micro 3	C				
16	Upbeet	50	DF	0.125	oz/a	micro 3	C				
16	Stinger	3	L	1	fl oz/a	micro 3	C				
16	MSO		L	1.5	% v/v	micro 3	C				
16	Betamix	1.3	EC	8	fl oz/a	micro 4	D				
16	Upbeet	50	DF	0.125	oz/a	micro 4	D				
16	Stinger	3	L	1	fl oz/a	micro 4	D				
16	MSO		L	1.5	% v/v	micro 4	D				
LSD (P=.10)								0.51	4.25	11.38	947.0
Standard Deviation								0.43	3.57	9.55	795.3
CV								2.81	13.64	4.38	13.87