

MSU Weed Science Research Program
Weed Control Systems in Narrow-row Roundup Ready Sugarbeets II

Trial ID: SB09-07
Conducted: Campus T-15

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

Date Planted: 4/19/07	Row Spacing: -- IN
Variety: Hilleshog 9028	No. of Reps: 4
Population: Comment	% OM: 3.1
Soil Type: Loam	pH: 6.3
Plot Size: 10 X 28 FT	Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel Plow, Fall Soil Finish on 11/27/06, Spring Soil Finish on 4/19/07
Fertilizer: Applied 200# of Urea/Acre on 3/16/07

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	AMBEL	RAGWEED, COMMON	AMBROSIA ELATIOR L.
2.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
3.	CHEAL	COMMON LAMBSQUARTERS	CHENOPODIUM ALBUM L.
4.	DATST	JIMSONWEED	DATURA STRAMONIUM L.
5.	AMARE	PIGWEEED, REDROOT	AMARANTHUS RETROFLEXUS L.
6.	BRAKA	MUSTARD, WILD	BRASSICA KABER
7.	SOLPT	NIGHTSHADE, EASTERN BLACK	SOLANUM PTYCANTHUM DUNAL
8.	LAMAM	HENBIT	LAMIUM AMPLEXICAULE L.
9.	THLAR	PENNYCRESS, FIELD	THLASPI ARVENSE L.
10.	ANGR	ANNUAL GRASS	
11.	POROL	PURSLANE, COMMON	PORTULACA OLERACEA L.
Crop	Code	Common Name	
1.	BETVU	Sugarbeet	

Application Description

	A	B	C	D	E	F	G
Application Timing:	Micro 1	Micro 2	M3,2" wds	M4,4" wds	6" weeds	2"+4" wds	4"+4" wds
Date Treated:	5/4/07	5/14/07	5/23/07	5/31/07	6/9/07	6/14/07	7/2/07
Time Treated:	12:00 pm	9:45 am	11:30 am	9:30 am	10:00 am	6:30 pm	5:50 pm
% Cloud Cover:	10	100	40	30	0	40	85
Air Temp., Unit:	63 F	54 F	84 F	78 F	72 F	84 F	79 F
% Relative Humidity:	22	54	25	35	20	20	36
Wind Speed/Unit/Dir:	8 mph E	5 mph SE	7 mph SW	3 mph S	0 mph -	3 mph N	0 mph -
Soil Temp., Unit:	57 F	53 F	73 F	71 F	67 F	84 F	81 F
Soil/Leaf Surface M:	5 5	5 5	5 5	5 5	5 5	5 5	5 5
Soil Moist (1=w 5=d):	5	5	5	5	5	5	5
	H						
Application Timing:	6"+4"wds						
Date Treated:	7/25/07						
Time Treated:	2:00 pm						
% Cloud Cover:	75						
Air Temp., Unit:	92 F						
% Relative Humidity:	40						
Wind Speed/Unit/Dir:	1 mph SE						
Soil Temp., Unit:	76 F						
Soil/Leaf Surface M:	5 5						
Soil Moist (1=w 5=d):	5						

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Crop Stage at Each Application

	A	B	C	D	E	F	G	H
Crop Name:	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU	BETVU
Height (In.):	1/2-3/4"	3/4-1.75"	1/2-2.5"	4-6"	5-7"	8-12"	13-16"	12-16"
Stage (L):	coty	coty-2	coty-4	4-8	8-10	10-12	16-18	18-20

Weed Stage at Each Application

	A	B	C	D	E	F	G	H
Weed 1 Name:	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
Height (In.):	1/8-1/4"	1/2"	2"	3-4"	5-7"	-	-	-
Stage (L):	coty-2	coty-2	4	4-8	many	-	-	-
Weed 2 Name:	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Height (In.):	1/2"	1/2-1"	1-1.5"	2"	4-8"	1-3"	-	6-10"
Stage (L):	coty	coty-1	1-2	2	3-6	2-4	-	4-8
Weed 3 Name:	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL
Height (In.):	1/4"-1/2"	1/2-1.5"	1/2-2"	1-5"	3-7"	1-4"	3.5"	2-6"
Stage (L):	coty	2-4	4-8	6-many	many	4-many	8-10	8-10
Weed 4 Name:	DATST	DATST	DATST	DATST	DATST	DATST	DATST	DATST
Height (In.):	-	1/2"	1.5-2"	2-3"	4-6"	4"	3-5"	-
Stage (L):	-	coty	2-4	4-6	6-10	3-4	6	-
Weed 5 Name:	AMARE	AMARE	AMARE	AMARE	AMARE	AMARE	AMARE	AMARE
Height (In.):	-	-	1/2-1"	1.5-3"	5-8"	1-4"	3"	2-4"
Stage (L):	-	-	coty-4	6-10	many	4-10	6-8	4-8
Weed 6 Name:	BRAKA	BRAKA	BRAKA	BRAKA	BRAKA	BRAKA	BRAKA	BRAKA
Height (In.):	-	-	2-3"	-	-	-	-	-
Stage (L):	-	-	4-6	-	-	-	-	-
Weed 7 Name:	SOLPT	SOLPT	SOLPT	SOLPT	SOLPT	SOLPT	SOLPT	SOLPT
Height (In.):	-	-	1/2"	1"	2-4"	1/2-1"	-	-
Stage (L):	-	-	coty-2	2-4	6-10	2-4	-	-
Weed 8 Name:	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM
Height (In.):	-	-	-	1-4"	-	-	-	-
Stage (L):	-	-	-	many	-	-	-	-
Weed 9 Name:	THLAR	THLAR	THLAR	THLAR	THLAR	THLAR	THLAR	THLAR
Height (In.):	-	-	-	3-6"	-	-	-	-
Stage (L):	-	-	-	flowering	-	-	-	-
Weed10 Name:	ANGR	ANGR	ANGR	ANGR	ANGR	ANGR	ANGR	ANGR
Height (In.):	-	-	-	-	-	3-5"	-	-
Stage (L):	-	-	-	-	-	3-4	-	-
Weed11 Name:	POROL	POROL	POROL	POROL	POROL	POROL	POROL	POROL
Height (In.):	-	-	-	-	-	-	8" dia	6-10" dia
Stage (L):	-	-	-	-	-	-	many	many

Weed Density (plants/sq. ft.)

	1	2	3	4	5	6	7	8
Date:	7/10/07	7/10/07	7/10/07	7/10/07	7/10/07	7/10/07	7/10/07	7/10/07
Weed Name:	CHEAL	ABUTH	ANGR	AMBEL	BRAKA	SOLPT	AMAPO	DATST
Density:	2	< 1	2	1	< 1	1	2	< 1
	9	10						
Date:	7/10/07	7/10/07						
Weed Name:	POLCO	POROL						
Density:	1	1						

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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	21"	20"	100"	19	Water	27
B	Cub	3.8	AirMix	11003	22"	20"	100"	19	Water	27
C	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	27
D	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	27
E	Cub	3.8	AirMix	11003	27"	20"	100"	19	Water	27
F	Cub	3.8	AirMix	11003	28"	20"	100"	19	Water	27
G	Cub	3.8	AirMix	11003	27"	20"	100"	19	Water	27
H	Cub	3.8	AirMix	11003	28"	20"	100"	19	Water	27

Comments: Adjusted rate for micro 1- Betamix 12oz, Stinger 2 oz
Planting population- 15" rows = 6" seed spacing, 30" rows = 3" seed spacing

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Weed Code	CHEAL	ANGR	AMAPO	ABUTH
Crop Code	BETVU			
Rating Data Type	injury	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	6/8/07	6/8/07	6/8/07	6/8/07
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	BETVU injury percent	CHEAL control percent	ANGR control percent	AMAPO control percent	ABUTH control percent
11	30" rows Weed-Free							0	99	99	99	99
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B					
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E					
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout	G					
	Ammonium sulfate		WG	17	lb/100 gal	Scout	G					
12	30" rows							16	96	97	98	97
	Betamix	1.3	EC	12	fl oz/a	micro 1	A					
	Upbeet	50	DF	0.125	oz/a	micro 1	A					
	Stinger	3	L	2	fl oz/a	micro 1	A					
	MSO		L	1.5	% v/v	micro 1	A					
	Betamix	1.3	EC	8	fl oz/a	micro 2	B					
	Upbeet	50	DF	0.125	oz/a	micro 2	B					
	Stinger	3	L	1	fl oz/a	micro 2	B					
	MSO		L	1.5	% v/v	micro 2	B					
	Betamix	1.3	EC	8	fl oz/a	micro 3	C					
	Upbeet	50	DF	0.125	oz/a	micro 3	C					
	Stinger	3	L	1	fl oz/a	micro 3	C					
	MSO		L	1.5	% v/v	micro 3	C					
	Betamix	1.3	EC	8	fl oz/a	micro 4	D					
	Upbeet	50	DF	0.125	oz/a	micro 4	D					
	Stinger	3	L	1	fl oz/a	micro 4	D					
	MSO		L	1.5	% v/v	micro 4	D					
13	15" rows							0	0	99	99	99
	Roundup WeatherMax	4.5	SL	22	fl oz/a	6" weeds	E					
	Ammonium sulfate		WG	17	lb/100 gal	6" weeds	E					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds						
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds						
14	15" rows Untreated							0	0	0	0	0
15	15" rows Weed-Free							0	99	98	99	99
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B					
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E					
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout						
	Ammonium sulfate		WG	17	lb/100 gal	Scout						

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Crop Code	BETVU			
Rating Data Type	injury	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	6/8/07	6/8/07	6/8/07	6/8/07
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
16	15" rows							24	99	97	99	98
	Betamix	1.3	EC	12	fl oz/a	micro 1	A					
	Upbeet	50	DF	0.125	oz/a	micro 1	A					
	Stinger	3	L	2	fl oz/a	micro 1	A					
	MSO		L	1.5	% v/v	micro 1	A					
	Betamix	1.3	EC	8	fl oz/a	micro 2	B					
	Upbeet	50	DF	0.125	oz/a	micro 2	B					
	Stinger	3	L	1	fl oz/a	micro 2	B					
	MSO		L	1.5	% v/v	micro 2	B					
	Betamix	1.3	EC	8	fl oz/a	micro 3	C					
	Upbeet	50	DF	0.125	oz/a	micro 3	C					
	Stinger	3	L	1	fl oz/a	micro 3	C					
	MSO		L	1.5	% v/v	micro 3	C					
	Betamix	1.3	EC	8	fl oz/a	micro 4	D					
	Upbeet	50	DF	0.125	oz/a	micro 4	D					
	Stinger	3	L	1	fl oz/a	micro 4	D					
	MSO		L	1.5	% v/v	micro 4	D					
LSD (P=.05)								3.0	1.6	1.5	0.8	15.9
Standard Deviation								2.1	1.1	1.1	0.6	11.1
CV								84.47	1.54	1.25	0.68	13.12

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Weed Code	SOLPT	DATST	AMBEL	POLCO	ANGR
Crop Code					
Rating Data Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	6/8/07	6/8/07	6/8/07	6/8/07	7/13/07
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A	70 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	SOLPT	DATST	AMBEL	POLCO	ANGR
11	30" rows							99	99	99	99	99
	Weed-Free											
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B					
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E					
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout	G					
	Ammonium sulfate		WG	17	lb/100 gal	Scout	G					
12	30" rows							99	99	99	99	66
	Betamix	1.3	EC	12	fl oz/a	micro 1	A					
	Upbeet	50	DF	0.125	oz/a	micro 1	A					
	Stinger	3	L	2	fl oz/a	micro 1	A					
	MSO		L	1.5	% v/v	micro 1	A					
	Betamix	1.3	EC	8	fl oz/a	micro 2	B					
	Upbeet	50	DF	0.125	oz/a	micro 2	B					
	Stinger	3	L	1	fl oz/a	micro 2	B					
	MSO		L	1.5	% v/v	micro 2	B					
	Betamix	1.3	EC	8	fl oz/a	micro 3	C					
	Upbeet	50	DF	0.125	oz/a	micro 3	C					
	Stinger	3	L	1	fl oz/a	micro 3	C					
	MSO		L	1.5	% v/v	micro 3	C					
	Betamix	1.3	EC	8	fl oz/a	micro 4	D					
	Upbeet	50	DF	0.125	oz/a	micro 4	D					
	Stinger	3	L	1	fl oz/a	micro 4	D					
	MSO		L	1.5	% v/v	micro 4	D					
13	15" rows							99	99	99	99	95
	Roundup WeatherMax	4.5	SL	22	fl oz/a	6" weeds	E					
	Ammonium sulfate		WG	17	lb/100 gal	6" weeds	E					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds						
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds						
14	15" rows							0	0	0	0	0
	Untreated											
15	15" rows							99	98	99	99	99
	Weed-Free											
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B					
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E					
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E					
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout						
	Ammonium sulfate		WG	17	lb/100 gal	Scout						

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								SOLPT	DATST	AMBEL	POLCO	ANGR
Weed Code												
Crop Code												
Rating Data Type								control	control	control	control	control
Rating Unit								percent	percent	percent	percent	percent
Rating Date								6/8/07	6/8/07	6/8/07	6/8/07	7/13/07
Trt-Eval Interval								35 DA-A	35 DA-A	35 DA-A	35 DA-A	70 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
16	15" rows							99	99	99	99	70
	Betamix	1.3	EC	12	fl oz/a	micro 1	A					
	Upbeet	50	DF	0.125	oz/a	micro 1	A					
	Stinger	3	L	2	fl oz/a	micro 1	A					
	MSO		L	1.5	% v/v	micro 1	A					
	Betamix	1.3	EC	8	fl oz/a	micro 2	B					
	Upbeet	50	DF	0.125	oz/a	micro 2	B					
	Stinger	3	L	1	fl oz/a	micro 2	B					
	MSO		L	1.5	% v/v	micro 2	B					
	Betamix	1.3	EC	8	fl oz/a	micro 3	C					
	Upbeet	50	DF	0.125	oz/a	micro 3	C					
	Stinger	3	L	1	fl oz/a	micro 3	C					
	MSO		L	1.5	% v/v	micro 3	C					
	Betamix	1.3	EC	8	fl oz/a	micro 4	D					
	Upbeet	50	DF	0.125	oz/a	micro 4	D					
	Stinger	3	L	1	fl oz/a	micro 4	D					
	MSO		L	1.5	% v/v	micro 4	D					
LSD (P=.05)								0.0	1.6	0.4	1.5	8.9
Standard Deviation								0.0	1.1	0.3	1.0	6.2
CV								0.0	1.28	0.29	1.18	7.71

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Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								7/13/07	7/13/07	7/13/07	7/13/07
Trt-Eval Interval								70 DA-A	70 DA-A	70 DA-A	70 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
11	30" rows Weed-Free							99	99	99	99
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B				
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E				
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout	G				
	Ammonium sulfate		WG	17	lb/100 gal	Scout	G				
12	30" rows							61	71	80	99
	Betamix	1.3	EC	12	fl oz/a	micro 1	A				
	Upbeet	50	DF	0.125	oz/a	micro 1	A				
	Stinger	3	L	2	fl oz/a	micro 1	A				
	MSO		L	1.5	% v/v	micro 1	A				
	Betamix	1.3	EC	8	fl oz/a	micro 2	B				
	Upbeet	50	DF	0.125	oz/a	micro 2	B				
	Stinger	3	L	1	fl oz/a	micro 2	B				
	MSO		L	1.5	% v/v	micro 2	B				
	Betamix	1.3	EC	8	fl oz/a	micro 3	C				
	Upbeet	50	DF	0.125	oz/a	micro 3	C				
	Stinger	3	L	1	fl oz/a	micro 3	C				
	MSO		L	1.5	% v/v	micro 3	C				
	Betamix	1.3	EC	8	fl oz/a	micro 4	D				
	Upbeet	50	DF	0.125	oz/a	micro 4	D				
	Stinger	3	L	1	fl oz/a	micro 4	D				
	MSO		L	1.5	% v/v	micro 4	D				
13	15" rows							89	96	98	95
	Roundup WeatherMax	4.5	SL	22	fl oz/a	6" weeds	E				
	Ammonium sulfate		WG	17	lb/100 gal	6" weeds	E				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds					
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds					
14	15" rows Untreated							0	0	0	0
15	15" rows Weed-Free							99	99	99	99
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B				
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E				
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout					
	Ammonium sulfate		WG	17	lb/100 gal	Scout					

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Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								7/13/07	7/13/07	7/13/07	7/13/07
Trt-Eval Interval								70 DA-A	70 DA-A	70 DA-A	70 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code				
16	15" rows							69	80	59	99
	Betamix	1.3	EC	12	fl oz/a	micro 1	A				
	Upbeet	50	DF	0.125	oz/a	micro 1	A				
	Stinger	3	L	2	fl oz/a	micro 1	A				
	MSO		L	1.5	% v/v	micro 1	A				
	Betamix	1.3	EC	8	fl oz/a	micro 2	B				
	Upbeet	50	DF	0.125	oz/a	micro 2	B				
	Stinger	3	L	1	fl oz/a	micro 2	B				
	MSO		L	1.5	% v/v	micro 2	B				
	Betamix	1.3	EC	8	fl oz/a	micro 3	C				
	Upbeet	50	DF	0.125	oz/a	micro 3	C				
	Stinger	3	L	1	fl oz/a	micro 3	C				
	MSO		L	1.5	% v/v	micro 3	C				
	Betamix	1.3	EC	8	fl oz/a	micro 4	D				
	Upbeet	50	DF	0.125	oz/a	micro 4	D				
	Stinger	3	L	1	fl oz/a	micro 4	D				
	MSO		L	1.5	% v/v	micro 4	D				
LSD (P=.05)								7.9	9.9	15.2	16.4
Standard Deviation								5.6	6.9	10.6	11.5
CV								6.96	8.38	12.85	13.53

MSU Weed Science Research Program

Weed Control Systems in Narrow-row Roundup Ready Sugarbeets II

Trial ID: SB09-07
 Conducted: Campus T-15

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

Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

BETVU count #/100' 10/12/07 161 DA-A
 BETVU % sugar 10/12/07 161 DA-A
 BETVU yield ton/acre 10/12/07 161 DA-A
 BETVU RWST #/ton 10/12/07 161 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	BETVU count #/100'	BETVU % sugar	BETVU yield ton/acre	BETVU RWST #/ton
11	30" rows Weed-Free							183	14.3	21.4	194.7
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B				
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E				
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout	G				
	Ammonium sulfate		WG	17	lb/100 gal	Scout	G				
12	30" rows							200	14.9	16.8	208.4
	Betamix	1.3	EC	12	fl oz/a	micro 1	A				
	Upbeet	50	DF	0.125	oz/a	micro 1	A				
	Stinger	3	L	2	fl oz/a	micro 1	A				
	MSO		L	1.5	% v/v	micro 1	A				
	Betamix	1.3	EC	8	fl oz/a	micro 2	B				
	Upbeet	50	DF	0.125	oz/a	micro 2	B				
	Stinger	3	L	1	fl oz/a	micro 2	B				
	MSO		L	1.5	% v/v	micro 2	B				
	Betamix	1.3	EC	8	fl oz/a	micro 3	C				
	Upbeet	50	DF	0.125	oz/a	micro 3	C				
	Stinger	3	L	1	fl oz/a	micro 3	C				
	MSO		L	1.5	% v/v	micro 3	C				
	Betamix	1.3	EC	8	fl oz/a	micro 4	D				
	Upbeet	50	DF	0.125	oz/a	micro 4	D				
	Stinger	3	L	1	fl oz/a	micro 4	D				
	MSO		L	1.5	% v/v	micro 4	D				
13	15" rows							128	14.4	24.4	200.4
	Roundup WeatherMax	4.5	SL	22	fl oz/a	6" weeds	E				
	Ammonium sulfate		WG	17	lb/100 gal	6" weeds	E				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds					
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds					
14	15" rows Untreated							122	15.6	9.1	225.5
15	15" rows Weed-Free							124	14.9	27.1	198.5
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B				
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E				
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E				
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout					
	Ammonium sulfate		WG	17	lb/100 gal	Scout					

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Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

BETVU count #/100'
 BETVU % sugar
 BETVU yield ton/acre
 BETVU RWST #/ton
 10/12/07 10/12/07 10/12/07 10/12/07
 161 DA-A 161 DA-A 161 DA-A 161 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	BETVU count #/100'	BETVU % sugar	BETVU yield ton/acre	BETVU RWST #/ton
16	15" rows							117	15.1	19.5	211.3
	Betamix	1.3	EC	12	fl oz/a	micro 1	A				
	Upbeet	50	DF	0.125	oz/a	micro 1	A				
	Stinger	3	L	2	fl oz/a	micro 1	A				
	MSO		L	1.5	% v/v	micro 1	A				
	Betamix	1.3	EC	8	fl oz/a	micro 2	B				
	Upbeet	50	DF	0.125	oz/a	micro 2	B				
	Stinger	3	L	1	fl oz/a	micro 2	B				
	MSO		L	1.5	% v/v	micro 2	B				
	Betamix	1.3	EC	8	fl oz/a	micro 3	C				
	Upbeet	50	DF	0.125	oz/a	micro 3	C				
	Stinger	3	L	1	fl oz/a	micro 3	C				
	MSO		L	1.5	% v/v	micro 3	C				
	Betamix	1.3	EC	8	fl oz/a	micro 4	D				
	Upbeet	50	DF	0.125	oz/a	micro 4	D				
	Stinger	3	L	1	fl oz/a	micro 4	D				
	MSO		L	1.5	% v/v	micro 4	D				
LSD (P=.05)								27.8	1.19	4.30	28.48
Standard Deviation								19.4	0.83	3.01	19.93
CV								12.51	5.78	14.15	10.09

MSU Weed Science Research Program

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Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

BETVU
 RWSA
 ton/acre
 10/12/07
 161 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	30" rows							1.8
	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C	
	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	F	
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	F	
2	30" rows							2.0
	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C	
	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	F	
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	F	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout		
	Ammonium sulfate		WG	17	lb/100 gal	Scout		
3	30" rows							2.2
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D	
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D	
4	30" rows							2.0
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D	
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	G	
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	G	
5	15" rows							2.3
	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C	
	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	F	
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	F	
6	15" rows							2.9
	Roundup WeatherMax	4.5	SL	22	fl oz/a	2" weeds	C	
	Ammonium sulfate		WG	17	lb/100 gal	2" weeds	C	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	F	
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	F	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout		
	Ammonium sulfate		WG	17	lb/100 gal	Scout		
7	15" rows							3.2
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D	
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D	
8	15" weeds							2.3
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	D	
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	D	
9	30" rows							1.8
	Roundup WeatherMax	4.5	SL	22	fl oz/a	6" weeds	E	
	Ammonium sulfate		WG	17	lb/100 gal	6" weeds	E	
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	H	
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	H	
10	30" rows							0.9
	Untreated							

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 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

BETVU
 RWSA
 ton/acre
 10/12/07
 161 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code
11	30" rows Weed-Free						2.1
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout	G
	Ammonium sulfate		WG	17	lb/100 gal	Scout	G
12	30" rows						1.7
	Betamix	1.3	EC	12	fl oz/a	micro 1	A
	Upbeet	50	DF	0.125	oz/a	micro 1	A
	Stinger	3	L	2	fl oz/a	micro 1	A
	MSO		L	1.5	% v/v	micro 1	A
	Betamix	1.3	EC	8	fl oz/a	micro 2	B
	Upbeet	50	DF	0.125	oz/a	micro 2	B
	Stinger	3	L	1	fl oz/a	micro 2	B
	MSO		L	1.5	% v/v	micro 2	B
	Betamix	1.3	EC	8	fl oz/a	micro 3	C
	Upbeet	50	DF	0.125	oz/a	micro 3	C
	Stinger	3	L	1	fl oz/a	micro 3	C
	MSO		L	1.5	% v/v	micro 3	C
	Betamix	1.3	EC	8	fl oz/a	micro 4	D
	Upbeet	50	DF	0.125	oz/a	micro 4	D
	Stinger	3	L	1	fl oz/a	micro 4	D
	MSO		L	1.5	% v/v	micro 4	D
13	15" rows						2.5
	Roundup WeatherMax	4.5	SL	22	fl oz/a	6" weeds	E
	Ammonium sulfate		WG	17	lb/100 gal	6" weeds	E
	Roundup WeatherMax	4.5	SL	22	fl oz/a	+ 4" wds	
	Ammonium sulfate		WG	17	lb/100 gal	+ 4" wds	
14	15" rows Untreated						1.0
15	15" rows Weed-Free						2.7
	Roundup WeatherMax	4.5	SL	22	fl oz/a	micro 2	B
	Ammonium sulfate		WG	17	lb/100 gal	micro 2	B
	Roundup WeatherMax	4.5	SL	22	fl oz/a	4" weeds	E
	Ammonium sulfate		WG	17	lb/100 gal	4" weeds	E
	Roundup WeatherMax	4.5	SL	22	fl oz/a	Scout	
	Ammonium sulfate		WG	17	lb/100 gal	Scout	

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 Rating Date
 Trt-Eval Interval

BETVU
 RWSA
 ton/acre
 10/12/07
 161 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code
16	15" rows						2.0
	Betamix	1.3	EC	12	fl oz/a	micro 1	A
	Upbeet	50	DF	0.125	oz/a	micro 1	A
	Stinger	3	L	2	fl oz/a	micro 1	A
	MSO		L	1.5	% v/v	micro 1	A
	Betamix	1.3	EC	8	fl oz/a	micro 2	B
	Upbeet	50	DF	0.125	oz/a	micro 2	B
	Stinger	3	L	1	fl oz/a	micro 2	B
	MSO		L	1.5	% v/v	micro 2	B
	Betamix	1.3	EC	8	fl oz/a	micro 3	C
	Upbeet	50	DF	0.125	oz/a	micro 3	C
	Stinger	3	L	1	fl oz/a	micro 3	C
	MSO		L	1.5	% v/v	micro 3	C
	Betamix	1.3	EC	8	fl oz/a	micro 4	D
	Upbeet	50	DF	0.125	oz/a	micro 4	D
	Stinger	3	L	1	fl oz/a	micro 4	D
	MSO		L	1.5	% v/v	micro 4	D

LSD (P=.05) 0.50
 Standard Deviation 0.35
 CV 17.03