

MSU Weed Science Research Program

Time of volunteer corn control in sugarbeet II

Trial ID: SB07-13 Study Dir.: Harden, Sprague, Powell
 Conducted: Campus T-15E Investigator: Christy Sprague

Date Planted: May/03/2013 **Row Spacing:** 30 IN
Variety: HM-173 RR **No. of Reps:** 4
Population: 4 1/8" spacing **% OM:** 4.1
Soil Type: Loam **pH:** 6.4
Plot Size: 10 X 30 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel, fall soil finish. Spring soil finish.
Fertilizer: 3/14/13- Applied 200 lb/A urea (90 lb N)

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ZEAMX	CORN, VOLUNTEER	ZEA MAYS L.
1.	BETVU	BEET, SUGAR	

Application Description

	A	B	C	D	E
Application Timing:	V2 Corn	V4 Corn	V6 Corn	V8 Corn	V10 Corn
Date Treated:	Jun/27/2013	Jul/01/2013	Jul/08/2013	Jul/20/2013	Aug/08/2013
Time Treated:	12:30 PM	9:45 AM	10:45 AM	9:00 AM	11:00 AM
% Cloud Cover:	60	100	100	20	50
Air Temp., Unit:	94 F	67 F	78 F	72 F	66 F
% Relative Humidity:	48	53	76	84	77
Wind Speed/Unit/Dir:	3 mph SW	5 mph NE	5 mph SW	4 mph NE	4 mph NE
Soil Temp., Unit:	79 F	60 F	77 F	76 F	67 F
Soil/Leaf Surface M:	2 5	3 5	4 5	3 5	2 5
Soil Moist (1=w 5=d):	2	3	4	3	2

Crop Stage at Each Application

	A	B	C	D	E
Crop Name:	BETVU	BETVU	BETVU	BETVU	BETVU
Height (In.):	8-10"	12-14"	17"	18-20"	24-26"
Stage (L):	8-10	12-14	16-18	18-20	19-20

Weed Stage at Each Application

	A	B	C	D	E
Weed 1 Name:	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Height (In.):	8-10"	12"	24"	35"	40"
Stage (L):	V2	V4	V6	V8	V10

Application Equipment

Appl	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom width	GPA	Carrier	PSI
A	Cub	3.8	AIXR	11003	26"	20"	100"	19	water	30
B	Cub	3.8	AIXR	11003	26"	20"	100"	19	water	30
C	Cub	3.8	AIXR	11003	34"	20"	100"	19	water	30
D	Backpack	3.8	AIXR	11003	43"	20"	100"	19	water	30
E	Backpack	3.8	AIXR	11003	50"	20"	100"	19	water	30

Comments: Roundup PowerMax (22 fl oz/A)+ AMS (17 lb/100 gal) was applied - 5/31/13 & 6/27/13

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 Conducted: Campus T-15E Investigator: Christy Sprague

Weed Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Jul/09/2013	Jul/15/2013	Jul/22/2013	Jul/30/2013
Trt-Eval Interval	12 DA-A	14 DA-B	14 DA-C	10 DA-D
# Subsamples, Dec.	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Grow Stg	Appl Code				
1	No volunteer corn control										
2	Volunteer corn (24)							0	0	0	0
3	Volunteer corn (24)							99	99	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A				
	Select Max	0.97	L	6	fl oz/a	V2 v.c.	A				
	AMS		WG	17	lb/100 gal	V2 v.c.	A				
4	Volunteer corn (24)							99	99	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A				
	Assure II	0.88	L	4	fl oz/a	V2 v.c.	A				
	Surfactant		L	0.125	% v/v	V2 v.c.	A				
	AMS		WG	17	lb/100 gal	V2 v.c.	A				
5	Volunteer corn (24)							73	88	98	99
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B				
	Select Max	0.97	L	6	fl oz/a	V4 v.c.	B				
	AMS		WG	17	lb/100 gal	V4 v.c.	B				
6	Volunteer corn (24)							73	90	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B				
	Assure II	0.88	L	4	fl oz/a	V4 v.c.	B				
	Surfactant		L	0.125	% v/v	V4 v.c.	B				
	AMS		WG	17	lb/100 gal	V4 v.c.	B				
7	Volunteer corn (24)								66	96	98
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C				
	Select Max	0.97	L	9	fl oz/a	V6 v.c.	C				
	AMS		WG	17	lb/100 gal	V6 v.c.	C				
8	Volunteer corn (24)								69	97	99
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C				
	Assure II	0.88	L	5	fl oz/a	V6 v.c.	C				
	Surfactant		L	0.125	% v/v	V6 v.c.	C				
	AMS		WG	17	lb/100 gal	V6 v.c.	C				
9	Volunteer corn (24)										60
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D				
	Select Max	0.97	L	9	fl oz/a	V8 v.c.	D				
	AMS		WG	17	lb/100 gal	V8 v.c.	D				
10	Volunteer corn (24)										63
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D				
	Assure II	0.88	L	5	fl oz/a	V8 v.c.	D				
	Surfactant		L	0.125	% v/v	V8 v.c.	D				
	AMS		WG	17	lb/100 gal	V8 v.c.	D				
11	Volunteer corn (24)										
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E				
	Select Max	0.97	L	12	fl oz/a	V10 v.c.	E				
	AMS		WG	17	lb/100 gal	V10 v.c.	E				
12	Volunteer corn (24)										
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E				
	Assure II	0.88	L	8	fl oz/a	V10 v.c.	E				
	Surfactant		L	0.125	% v/v	V10 v.c.	E				
	AMS		WG	17	lb/100 gal	V10 v.c.	E				
	LSD (P=.05)							2.3	2.5	2.2	3.9
	CV							2.21	2.33	1.73	3.36

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

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Weed Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Aug/07/2013	Aug/22/2013	Sep/04/2013	Sep/18/2013
Trt-Eval Interval	18 DA-D	33 DA-D	46 DA-D	60 DA-D
# Subsamples, Dec.	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	No volunteer corn control										
2	Volunteer corn (24)							0	0	0	0
3	Volunteer corn (24)							99	99	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A				
	Select Max	0.97	L	6	fl oz/a	V2 v.c.	A				
	AMS		WG	17	lb/100 gal	V2 v.c.	A				
4	Volunteer corn (24)							99	99	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A				
	Assure II	0.88	L	4	fl oz/a	V2 v.c.	A				
	Surfactant		L	0.125	% v/v	V2 v.c.	A				
	AMS		WG	17	lb/100 gal	V2 v.c.	A				
5	Volunteer corn (24)							99	99	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B				
	Select Max	0.97	L	6	fl oz/a	V4 v.c.	B				
	AMS		WG	17	lb/100 gal	V4 v.c.	B				
6	Volunteer corn (24)							99	99	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B				
	Assure II	0.88	L	4	fl oz/a	V4 v.c.	B				
	Surfactant		L	0.125	% v/v	V4 v.c.	B				
	AMS		WG	17	lb/100 gal	V4 v.c.	B				
7	Volunteer corn (24)							98	98	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C				
	Select Max	0.97	L	9	fl oz/a	V6 v.c.	C				
	AMS		WG	17	lb/100 gal	V6 v.c.	C				
8	Volunteer corn (24)							99	99	99	99
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C				
	Assure II	0.88	L	5	fl oz/a	V6 v.c.	C				
	Surfactant		L	0.125	% v/v	V6 v.c.	C				
	AMS		WG	17	lb/100 gal	V6 v.c.	C				
9	Volunteer corn (24)							65	93	95	97
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D				
	Select Max	0.97	L	9	fl oz/a	V8 v.c.	D				
	AMS		WG	17	lb/100 gal	V8 v.c.	D				
10	Volunteer corn (24)							78	97	98	99
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D				
	Assure II	0.88	L	5	fl oz/a	V8 v.c.	D				
	Surfactant		L	0.125	% v/v	V8 v.c.	D				
	AMS		WG	17	lb/100 gal	V8 v.c.	D				
11	Volunteer corn (24)								49	63	65
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E				
	Select Max	0.97	L	12	fl oz/a	V10 v.c.	E				
	AMS		WG	17	lb/100 gal	V10 v.c.	E				
12	Volunteer corn (24)								36	55	61
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E				
	Assure II	0.88	L	8	fl oz/a	V10 v.c.	E				
	Surfactant		L	0.125	% v/v	V10 v.c.	E				
	AMS		WG	17	lb/100 gal	V10 v.c.	E				
LSD (P=.05)								3.6	5.5	4.8	6.0
CV								3.0	4.82	4.02	5.02

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

MSU Weed Science Research Program

Weed Code									
Crop Code									
Rating Data Type						BETVU	BETVU	BETVU	BETVU
Rating Unit						stand count	% sugar	yield	RWST
Rating Date						100'/row		ton/acre	# / ton
Trt-Eval Interval						Oct/15/2013	Oct/15/2013	Oct/15/2013	Oct/15/2013
# Subsamples, Dec.						110 DA-A	110 DA-A	110 DA-A	110 DA-A
						0	1	1	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	No volunteer corn control							240	17.9	31.4	267
2	Volunteer corn (24)							239	17.2	27.4	255
3	Volunteer corn (24)							236	17.2	31.3	253
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A				
	Select Max	0.97	L	6	fl oz/a	V2 v.c.	A				
	AMS		WG	17	lb/100 gal	V2 v.c.	A				
4	Volunteer corn (24)							245	17.1	29.8	253
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A				
	Assure II	0.88	L	4	fl oz/a	V2 v.c.	A				
	Surfactant		L	0.125	% v/v	V2 v.c.	A				
	AMS		WG	17	lb/100 gal	V2 v.c.	A				
5	Volunteer corn (24)							235	17.3	29.0	256
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B				
	Select Max	0.97	L	6	fl oz/a	V4 v.c.	B				
	AMS		WG	17	lb/100 gal	V4 v.c.	B				
6	Volunteer corn (24)							243	17.6	32.0	260
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B				
	Assure II	0.88	L	4	fl oz/a	V4 v.c.	B				
	Surfactant		L	0.125	% v/v	V4 v.c.	B				
	AMS		WG	17	lb/100 gal	V4 v.c.	B				
7	Volunteer corn (24)							234	17.4	31.0	258
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C				
	Select Max	0.97	L	9	fl oz/a	V6 v.c.	C				
	AMS		WG	17	lb/100 gal	V6 v.c.	C				
8	Volunteer corn (24)							251	17.5	29.8	260
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C				
	Assure II	0.88	L	5	fl oz/a	V6 v.c.	C				
	Surfactant		L	0.125	% v/v	V6 v.c.	C				
	AMS		WG	17	lb/100 gal	V6 v.c.	C				
9	Volunteer corn (24)							233	17.4	26.5	256
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D				
	Select Max	0.97	L	9	fl oz/a	V8 v.c.	D				
	AMS		WG	17	lb/100 gal	V8 v.c.	D				
10	Volunteer corn (24)							237	17.8	31.6	264
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D				
	Assure II	0.88	L	5	fl oz/a	V8 v.c.	D				
	Surfactant		L	0.125	% v/v	V8 v.c.	D				
	AMS		WG	17	lb/100 gal	V8 v.c.	D				
11	Volunteer corn (24)							248	17.3	27.4	255
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E				
	Select Max	0.97	L	12	fl oz/a	V10 v.c.	E				
	AMS		WG	17	lb/100 gal	V10 v.c.	E				
12	Volunteer corn (24)							249	17.4	29.9	259
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E				
	Assure II	0.88	L	8	fl oz/a	V10 v.c.	E				
	Surfactant		L	0.125	% v/v	V10 v.c.	E				
	AMS		WG	17	lb/100 gal	V10 v.c.	E				
	LSD (P=.05)							28.3	0.66	4.08	12.3
	CV							8.13	2.64	9.49	3.3

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

MSU Weed Science Research Program

Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval
 # Subsamples, Dec.

BETVU
 RWSA
 # / acre
 Oct/15/2013
 110 DA-A
 0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code	
1	No volunteer corn control							8384
2	Volunteer corn (24)							6993
3	Volunteer corn (24)							7908
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A	
	Select Max	0.97	L	6	fl oz/a	V2 v.c.	A	
	AMS		WG	17	lb/100 gal	V2 v.c.	A	
4	Volunteer corn (24)							7538
	Roundup PowerMax	4	SL	22	fl oz/a	V2 v.c.	A	
	Assure II	0.88	L	4	fl oz/a	V2 v.c.	A	
	Surfactant		L	0.125	% v/v	V2 v.c.	A	
	AMS		WG	17	lb/100 gal	V2 v.c.	A	
5	Volunteer corn (24)							7444
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B	
	Select Max	0.97	L	6	fl oz/a	V4 v.c.	B	
	AMS		WG	17	lb/100 gal	V4 v.c.	B	
6	Volunteer corn (24)							8352
	Roundup PowerMax	4	SL	22	fl oz/a	V4 v.c.	B	
	Assure II	0.88	L	4	fl oz/a	V4 v.c.	B	
	Surfactant		L	0.125	% v/v	V4 v.c.	B	
	AMS		WG	17	lb/100 gal	V4 v.c.	B	
7	Volunteer corn (24)							8047
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C	
	Select Max	0.97	L	9	fl oz/a	V6 v.c.	C	
	AMS		WG	17	lb/100 gal	V6 v.c.	C	
8	Volunteer corn (24)							7766
	Roundup PowerMax	4	SL	22	fl oz/a	V6 v.c.	C	
	Assure II	0.88	L	5	fl oz/a	V6 v.c.	C	
	Surfactant		L	0.125	% v/v	V6 v.c.	C	
	AMS		WG	17	lb/100 gal	V6 v.c.	C	
9	Volunteer corn (24)							6784
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D	
	Select Max	0.97	L	9	fl oz/a	V8 v.c.	D	
	AMS		WG	17	lb/100 gal	V8 v.c.	D	
10	Volunteer corn (24)							8360
	Roundup PowerMax	4	SL	22	fl oz/a	V8 v.c.	D	
	Assure II	0.88	L	5	fl oz/a	V8 v.c.	D	
	Surfactant		L	0.125	% v/v	V8 v.c.	D	
	AMS		WG	17	lb/100 gal	V8 v.c.	D	
11	Volunteer corn (24)							6999
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E	
	Select Max	0.97	L	12	fl oz/a	V10 v.c.	E	
	AMS		WG	17	lb/100 gal	V10 v.c.	E	
12	Volunteer corn (24)							7751
	Roundup PowerMax	4	SL	22	fl oz/a	V10 v.c.	E	
	Assure II	0.88	L	8	fl oz/a	V10 v.c.	E	
	Surfactant		L	0.125	% v/v	V10 v.c.	E	
	AMS		WG	17	lb/100 gal	V10 v.c.	E	
LSD (P=.05)								1089.8
CV								9.81

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