

HALOSULFURON FOR WEED CONTROL IN POTATO, 2010

Trial ID: P0410 Protocol ID: P0410
 Location: Montcalm Co. Study Director: Andy Chomas
 Project ID: Investigator: Wesley Everman

General Trial Information

Study Director: Andy Chomas
Investigator: Wesley Everman

Personnel

Study Director: Andy Chomas
Investigator: Wesley Everman

Crop Description

Crop 1: SOLTU Solanum tuberosum Potato
Variety: SNOWDEN
BBCH Scale: BPOT **Planting Date:** May-17-10
Rate, Unit: 1 S/FT
Row Spacing, Unit: 34 IN

Pest Description

Pest 1 Type: W **Code:** ANGR
Common Name: annual grass
Pest 2 Type: W **Code:** CHEAL Chenopodium album L.
Common Name: Lambsquarters, common
Pest 3 Type: W **Code:** AMARE Amaranthus retroflexus L.
Common Name: Pigweed, redroot

Site and Design

Plot Width, Unit: 9 FT
Plot Length, Unit: 20 FT
Plot Area, Unit: 180 FT2
Replications: 3 **Study Design:** RACOB L Randomized Complete Block (RCB)

Trial Initiation Comments:
 Spring Disk X3, Chisel, Field Cultivated. Cultivated on , Hilled on .

Field Prep./Maintenance:
 Broadcast 200 lbs/A K-mag, 10 lbs/A Boron, 2 ton/A Chicken Manure. 5 gal/A 10-34-0, 23 gal/A 28%N at Plant, 100 lbs/A 46-0-0 Broadcast.

Soil Description

% OM: 1.5 **Texture:** LS loamy sand
pH: 5.8

Application Description

	A	B
Application Date:	May-17-10	Jul-6-10
Time of Day:	1:30 am	9:30 am
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Application Placement:	BROADC	BROADC
Air Temperature, Unit:	62 F	79 F
% Relative Humidity:	45	72
Wind Velocity, Unit:	10 MPH	3 MPH
Wind Direction:	NE	SW
Soil Temperature, Unit:	55 F	72 F
Soil Moisture:	5	3
% Cloud Cover:	90	5

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	SOLTU BPOT	SOLTU BPOT
Stage Scale Used:		BBCH
Stage Majority, Percent:		FLOWER
Height, Unit:		15 IN
Height Minimum, Maximum:		14 19

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Pest Stage At Each Application

	A		B	
Pest 1 Code, Type, Scale:	ANGR	W	ANGR	W
Stage Majority, Percent:			L19	
Stage Minimum, Percent:			L17	
Stage Maximum, Percent:			L26	
Height, Unit:			19	IN
Height Minimum, Maximum:			17	20
Pest 2 Code, Type, Scale:	CHEAL	W	CHEAL	W
Stage Majority, Percent:			L20	
Stage Minimum, Percent:			L18	
Stage Maximum, Percent:			L24	
Height, Unit:			19	IN
Height Minimum, Maximum:			17	20
Pest 3 Code, Type, Scale:	AMARE	W	AMARE	W
Stage Majority, Percent:			L21	
Stage Minimum, Percent:			L21	
Stage Maximum, Percent:			L25	
Height, Unit:			22	IN
Height Minimum, Maximum:			22	28

Application Equipment

	A		B	
Equipment Type:	BKPK		BKPK	
Operating Pressure, Unit:	30	PSI	30	PSI
Nozzle Type:	FF		FF	
Nozzle Size:	8003		8003	
Nozzle Spacing, Unit:	20	IN	20	IN
Boom Length, Unit:	100	IN	100	IN
Boom Height, Unit:	18	IN	34	IN
Ground Speed, Unit:	3.5	MPH	3.5	MPH
Carrier:	WATER		WATER	
Spray Volume, Unit:	20	gal/ac	20	gal/ac
Mix Size, Unit:	2	liters	2	liters

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Trt-Eval Interval	SOLTU		ANGR		CHEAL		DIGSA		ECHCG		CHEAL		AMARE	
						Jun-9-10 injury percent	Aug-2-10 injury percent	Aug-2-10 control percent	Aug-2-10 control percent	Aug-16-10 injury percent	Aug-16-10 control percent	Aug-16-10 control percent	Aug-16-10 control percent	Aug-16-10 control percent	Aug-16-10 control percent				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Stage	1	2	3	4	5	6	7	8	9					
1	Permit	75 DF		0.024 lb ai/a	PRE	0	0	80	53	0	75	72	40	100					
2	Permit	75 DF		0.048 lb ai/a	PRE	0	0	88	73	0	53	77	60	92					
3	Permit	75 DF		0.024 lb ai/a	PRE	0	0	97	77	0	88	98	60	77					
3	Dual II Magnum	7.64 L		1 lb ai/a	PRE														
4	Permit	75 DF		0.048 lb ai/a	PRE	0	0	90	83	0	67	83	57	73					
4	Dual II Magnum	7.64 L		1 lb ai/a	PRE														
5	Permit	75 DF		0.024 lb ai/a	PRE	0	2	95	98	0	73	85	78	82					
5	Sencor	75 DF		0.38 lb ai/a	PRE														
5	Dual II Magnum	7.64 L		1 lb ai/a	PRE														
6	Permit	75 DF		0.048 lb ai/a	PRE	0	2	97	90	0	80	85	68	88					
6	Sencor	75 DF		0.38 lb ai/a	PRE														
6	Dual II Magnum	7.64 L		1 lb ai/a	PRE														
7	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	2	98	53	0	92	97	40	100					
7	Permit	75 DF		0.024 lb ai/a	POST														
7	Activator 90	100 L		0.25 % v/v	POST														
8	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	2	98	82	0	83	100	72	93					
8	Sencor	75 DF		0.38 lb ai/a	PRE														
8	Permit	75 DF		0.024 lb ai/a	POST														
8	Activator 90	100 L		0.25 % v/v	POST														
9	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	0	100	83	0	100	97	65	80					
9	Sencor	75 DF		0.38 lb ai/a	PRE														
10	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	2	100	98	0	98	100	80	100					
10	Sencor	75 DF		0.38 lb ai/a	PRE														
10	Matrix	25 WG		0.024 lb ai/a	POST														
10	Activator 90	100 L		0.25 % v/v	POST														
11	Non-Treated					0	0	0	0	0	0	0	0	0					
LSD (P=.05)						0.0	3.2	6.1	16.0	0.0	14.0	19.9	18.8	16.0					
Standard Deviation						0.0	1.9	3.6	9.4	0.0	8.2	11.7	11.0	9.4					
CV						0.0	251.71	4.16	13.09	0.0	11.19	14.37	19.56	11.69					

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Pest Code		ANGR	CHEAL		ANGR	AMARE	CHEAL		SOLTU	SOLTU	SOLTU
Crop Code		SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU
Rating Date		Jul-6-10	Jul-6-10	Jul-19-10	Jul-19-10	Jul-19-10	Jul-19-10	Sep-23-10	Sep-23-10	Sep-23-10	Sep-23-10
Rating Type		injury	control	injury	control	control	control	< 1 7/8"	< 1 7/8"	Oversize	Oversize
Rating Unit		percent	percent	percent	percent	percent	percent	kilogram	count	kilogram	kilogram
Trt-Eval Interval		50 DA-A	50 DA-A	63 DA-A	63 DA-A	63 DA-A	63 DA-A	HARVEST	HARVEST	HARVEST	HARVEST

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Growth Stage	10	11	12	13	14	15	16	17	18	19
1	Permit	75 DF		0.024 lb ai/a	PRE	0	93	87	0	85	88	70	2	38	
2	Permit	75 DF		0.048 lb ai/a	PRE	0	98	83	8	90	87	70	1	28	
3	Permit	75 DF		0.024 lb ai/a	PRE	0	100	97	3	98	95	87	1	32	
3	Dual II Magnum	7.64 L		1 lb ai/a	PRE										
4	Permit	75 DF		0.048 lb ai/a	PRE	0	100	98	8	93	95	87	6	36	
4	Dual II Magnum	7.64 L		1 lb ai/a	PRE										
5	Permit	75 DF		0.024 lb ai/a	PRE	0	100	100	8	95	95	85	2	40	
5	Sencor	75 DF		0.38 lb ai/a	PRE										
5	Dual II Magnum	7.64 L		1 lb ai/a	PRE										
6	Permit	75 DF		0.048 lb ai/a	PRE	0	100	100	7	98	92	90	1	33	0.73
6	Sencor	75 DF		0.38 lb ai/a	PRE										
6	Dual II Magnum	7.64 L		1 lb ai/a	PRE										
7	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	100	82	7	99	98	73	2	49	0.27
7	Permit	75 DF		0.024 lb ai/a	POST										
7	Activator 90	100 L		0.25 % v/v	POST										
8	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	100	97	8	100	98	92	2	51	
8	Sencor	75 DF		0.38 lb ai/a	PRE										
8	Permit	75 DF		0.024 lb ai/a	POST										
8	Activator 90	100 L		0.25 % v/v	POST										
9	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	100	100	5	100	93	87	1	35	0.42
9	Sencor	75 DF		0.38 lb ai/a	PRE										
10	Dual II Magnum	7.64 L		1 lb ai/a	PRE	0	100	98	3	100	100	97	2	42	0.33
10	Sencor	75 DF		0.38 lb ai/a	PRE										
10	Matrix	25 WG		0.024 lb ai/a	POST										
10	Activator 90	100 L		0.25 % v/v	POST										
11	Non-Treated					0	0	0	0	0	0	0	2	46	
LSD (P=.05)						0.0	3.2	7.3	10.5	7.2	13.3	11.4	4.0	19.5	.
Standard Deviation						0.0	1.9	4.3	6.1	4.2	7.8	6.7	2.4	11.5	.
CV						0.0	2.12	5.04	115.83	4.84	9.14	8.81	114.0	29.26	.

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Pest Code													
Crop Code													
Rating Date													
Rating Type													
Rating Unit													
Trt-Eval Interval													
						SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU	SOLTU
						Sep-23-10	Sep-23-10	Sep-23-10	Sep-23-10	Sep-23-10	Sep-17-10	Sep-23-10	Sep-23-10
						OverSize	PickOut	PickOut	Grade A	Grade A	SPEC. GRAV.	HH	VD
						count	kilogram	count	kilogram	count		0-10	0-10
						HARVEST	HARVEST	HARVEST	HARVEST	HARVEST	HARVEST	HARVEST	HARVEST

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	20	21	22	27	28	31	32	33
1	Permit	75	DF	0.024	lb ai/a	PRE		0.27	1	14.29	119	1.079	1	3
2	Permit	75	DF	0.048	lb ai/a	PRE		0.07	1	13.69	118	1.079		2
3	Permit	75	DF	0.024	lb ai/a	PRE		0.20	1	15.59	120	1.058		3
3	Dual II Magnum	7.64	L	1	lb ai/a	PRE								
4	Permit	75	DF	0.048	lb ai/a	PRE		0.40	2	18.22	131	1.077	3	4
4	Dual II Magnum	7.64	L	1	lb ai/a	PRE								
5	Permit	75	DF	0.024	lb ai/a	PRE		0.37	1	14.83	132	1.078	1	4
5	Sencor	75	DF	0.38	lb ai/a	PRE								
5	Dual II Magnum	7.64	L	1	lb ai/a	PRE								
6	Permit	75	DF	0.048	lb ai/a	PRE	2			14.89	103	1.080	1	6
6	Sencor	75	DF	0.38	lb ai/a	PRE								
6	Dual II Magnum	7.64	L	1	lb ai/a	PRE								
7	Dual II Magnum	7.64	L	1	lb ai/a	PRE	1	0.96	7	13.52	118	1.078		6
7	Permit	75	DF	0.024	lb ai/a	POST								
7	Activator 90	100	L	0.25	% v/v	POST								
8	Dual II Magnum	7.64	L	1	lb ai/a	PRE		0.71	8	16.43	145	1.077		5
8	Sencor	75	DF	0.38	lb ai/a	PRE								
8	Permit	75	DF	0.024	lb ai/a	POST								
8	Activator 90	100	L	0.25	% v/v	POST								
9	Dual II Magnum	7.64	L	1	lb ai/a	PRE	1			17.50	137	1.079	1	3
9	Sencor	75	DF	0.38	lb ai/a	PRE								
10	Dual II Magnum	7.64	L	1	lb ai/a	PRE	1			16.48	131	1.059		3
10	Sencor	75	DF	0.38	lb ai/a	PRE								
10	Matrix	25	WG	0.024	lb ai/a	POST								
10	Activator 90	100	L	0.25	% v/v	POST								
11	Non-Treated											1.079		2
LSD (P=.05)										2.970	39.1	0.0268		2.6
Standard Deviation										1.669	22.0	0.0157		1.5
CV										10.74	17.54	1.46		42.49

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Pest Code
 Crop Code SOLTU
 Rating Date Sep-23-10
 Rating Type BC
 Rating Unit 0-10
 Trt-Eval Interval HARVEST

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Growth Stage	34
1	Permit	75	DF	0.024	lb ai/a	PRE	
2	Permit	75	DF	0.048	lb ai/a	PRE	
3	Permit	75	DF	0.024	lb ai/a	PRE	
3	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
4	Permit	75	DF	0.048	lb ai/a	PRE	
4	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
5	Permit	75	DF	0.024	lb ai/a	PRE	
5	Sencor	75	DF	0.38	lb ai/a	PRE	
5	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
6	Permit	75	DF	0.048	lb ai/a	PRE	
6	Sencor	75	DF	0.38	lb ai/a	PRE	
6	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
7	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
7	Permit	75	DF	0.024	lb ai/a	POST	
7	Activator 90	100	L	0.25	% v/v	POST	
8	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
8	Sencor	75	DF	0.38	lb ai/a	PRE	
8	Permit	75	DF	0.024	lb ai/a	POST	
8	Activator 90	100	L	0.25	% v/v	POST	
9	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
9	Sencor	75	DF	0.38	lb ai/a	PRE	
10	Dual II Magnum	7.64	L	1	lb ai/a	PRE	
10	Sencor	75	DF	0.38	lb ai/a	PRE	
10	Matrix	25	WG	0.024	lb ai/a	POST	
10	Activator 90	100	L	0.25	% v/v	POST	
11	Non-Treated						

LSD (P=.05)

Standard Deviation

CV