

MSU Weed Science Research Program
EFFECTS OF ALS INHIBITING HERBICIDES ON POTATOES

Trial ID: P1209 Study Dir.:
 Conducted: MONTCALM RSCH FARM Investigator: Christy Sprague

Date Planted: 5/11/09 **Row Spacing:** 34 IN
Variety: SNOWDEN **No. of Reps:** 3
Population: 1/FT **% OM:** 1.2
Soil Type: Loamy Sand **pH:** 5.7
Plot Size: 9 X 20 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Spring Disc 3X. Spring Chisel. Field Cultivated.
Fertilizer: 20 gal/A of 19-17-0, 12 gal/A of 10-34-0 in Row. 23 gal/A of 28% N at Cultivation. 23 gal/A of 28%N at Hilling. 100 lbs/A of 46-0-0 Broadcast.

Application Description

	A	B	C
Application Timing:	PRE	EP	LP
Date Treated:	5/29/09	6/22/09	7/8/09
Time Treated:	10:12 AM	11:00 AM	10:30 AM
% Cloud Cover:	80	10	40
Air Temp., Unit:	65 F	89 F	79 F
% Relative Humidity:	73	67	53
Wind Speed/Unit/Dir:	2 mph W	2 mph SW	2 mph S
Soil Temp., Unit:	63 F	68 F	64 F
Soil/Leaf Surface M:	5	5	5
Soil Moist (1=w 5=d):	2	5	4

Crop Stage at Each Application

	A	B	C
Crop Name:	SOLTU	SOLTU	SOLTU
Height (In.):			23
Stage (L):	EARLY CRK		

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height (In.):	.3-1(.3)	1-3(2)	.3-7(1.5)
Stage (L):	1-2(1)	2	1-4(3)
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height (In.):	.3-.5(.5)	1-5(4)	.3-26(1)
Stage (L):	1-2(1)		

Weed Density (plants/sq. ft.)

	1	2
Date:	5/29/09	6/22/09
Weed Name:	ANGR	ANGR
Density:	<1	12
Date:	5/29/09	
Weed Name:	CHEAL	CHEAL
Density:	2	10
Date:	5/29/09	
Weed Name:	AMARE	AMARE
Density:	1	<1
Date:	5/29/09	
Weed Name:	AMBEL	AMBEL
Density:	<1	0
Date:	5/29/09	
Weed Name:	ABUTH	ABUTH
Density:	0	0

Application Equipment

Appl	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
A	BKPK	3.5	FF	8003	18"	20"	100"	20	H20	30
B	BKPK	3.5	FF	8003	24"	20"	120"	20	H20	30
C	BKPK	3.5	FF	8003	24"	20"	100"	20	H20	30

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Weed Code							ANGR	CHEAL		ANGR	CHEAL
Crop Code							SOLTU		SOLTU		
Rating Data Type							injury	control	control	injury	control
Rating Unit							percent	percent	percent	percent	percent
Rating Date							7/8/09	7/8/09	7/8/09	7/20/09	7/20/09
Trt-Eval Interval							at LP	at LP	at LP	12 DALP	12 DALP

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	1	2	3	4	5	6
1	CGA-362622	75	WG	0.0034	lb ai/a	EP	10	84	85	0	81	83
1	Activator 90		L	0.25	% v/v	EP						
2	CGA-362622	75	WG	0.0067	lb ai/a	EP	32	93	77	25	91	86
2	Activator 90		L	0.25	% v/v	EP						
3	CGA-362622	75	WG	0.0067	lb ai/a	EP	37	72	82	15	61	77
3	Herbimax		L	0.5	% v/v	EP						
4	CGA-362622	75	WG	0.0034	lb ai/a	LP				6	93	74
4	Activator 90		L	0.25	% v/v	LP						
5	CGA-362622	75	WG	0.0067	lb ai/a	LP				2	85	71
5	Activator 90		L	0.25	% v/v	LP						
6	Harmony SG 50%	50	SG	0.004	lb ai/a	EP	15	91	83	0	87	88
6	Activator 90		L	0.25	% v/v	EP						
7	Harmony SG 50%	50	SG	0.004	lb ai/a	LP				7	68	88
7	Activator 90		L	0.25	% v/v	LP						
8	Basis	75	WG	0.015	lb ai/a	EP	17	88	85	2	95	78
8	Activator 90		L	0.25	% v/v	EP						
9	Basis	75	WG	0.015	lb ai/a	LP				9	90	51
9	Activator 90		L	0.25	% v/v	LP						
10	Permit	75	DF	0.024	lb ai/a	EP	20	75	67	0	73	23
10	Activator 90		L	0.25	% v/v	EP						
11	Permit	75	DF	0.024	lb ai/a	LP				2	93	59
11	Activator 90		L	0.25	% v/v	LP						
12	Matrix	25	WG	0.024	lb ai/a	EP	0	97	75	0	94	84
12	Activator 90		L	0.25	% v/v	EP						
13	Matrix	25	WG	0.024	lb ai/a	LP				0	96	78
13	Activator 90		L	0.25	% v/v	LP						
14	Sencor	75	DF	0.25	lb ai/a	PRE	0	99	99	0	98	98
14	Matrix	25	WG	0.024	lb ai/a	EP						
14	Activator 90		L	0.25	% v/v	EP						
15	Handweeded						0	85	78	0	84	81
16	Non-Treated						0	65	33	0	72	7
LSD (P=.05)							5.2	33.3	21.1	7.6	19.2	28.9
Standard Deviation							3.0	19.4	12.3	4.6	11.5	17.3
CV							23.29	22.88	16.13	108.89	13.55	24.6