

Sonalan incorporation method for weed control in potato

Trial ID: P02-18 Study Dir.: Burns, Craft
 Conducted: Montcalm Research Farm Investigator: Erin Burns

Planting Date: May-8-2018 **Row Spacing:** 34 IN
Variety: Snowden **No. of Reps:** 4
Population: 15370 seed/A **% OM:** 1.4
Soil Type: SL sandy loam **pH:** 6.1
Plot Size: 10 X 20 FT **Study Design:** Randomized Complete Block (RCB)

Broadcast incorporated: 200 lbs/A 0-0-44-22 Mg-44 S, 150 lbs/A 0-0-0-32 Ca-24 S, 300 lbs/A 0-0-0-63 Ca-36 Mg, 6 lbs/A 0.6 lb. B, 350 lbs/A 0-0-217, 1 qt/A

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	DIGSA	large crabgrass	Digitaria sanguinalis
2	CHEAL	common lambsquarters	Chenopodium album
3	SOLAM	American black nightshade	Solanum americanum
4	AMARE	Redroot pigweed	Amaranthus retroflexus
5	POLCO	wild buckwheat	Fallopia convolvulus
Crop	Code	Common Name	
1	SOLTU	Potato	

Application Description

Application Timing: A
Date Treated: CRACK
 May-23-2018
Time Treated: 1:30 PM
% Cloud Cover: 30
Air Temp., Unit: 75 F
% Relative Humidity: 40
Wind Speed/Unit/Dir: 1.5 MPH NW
Soil Temp, Unit: 80.1 F
Leaf Moist/Dew Presence (Y/N): 3
Soil Moist: 2

Crop Stage at Each Application

Crop 1 Name: A
 SOLTU
Height:
Stage: CRACK

Weed Stage at Each Application

Weed 1 Name: A
 DIGSA
Height:
Stage:
Weed 2 Name: CHEAL
Height:
Stage:
Weed 3 Name: SOLAM
Height:
Stage:
Weed 4 Name: AMARE
Height:
Stage:
Weed 5 Name: POLCO
Height:
Stage:

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	BKPK	3.5 MPH	AIXR	1100	22 IN	20 IN	100 IN	19 GPA	WATER	30 PSI

Comments: Treatment 1-Mechanically incorporated one hour after treatment to 2-3 inch depth Treatment 2-Treatment was applied on 5/24 and irrigated with 0.5 inches of water

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Pest Code		DIGSA	CHEAL	SOLAM	AMARE	POLCO		DIGSA				
Crop Code	SOLTU						SOLTU					
Rating Date	Jun-7-2018	Jun-7-2018	Jun-7-2018	Jun-7-2018	Jun-7-2018	Jun-7-2018	Jun-13-2018	Jun-13-2018				
Rating Type	injury	control	control	control	control	control	injury	control				
Rating Unit	percent	percent	percent	percent	percent	percent	percent	percent				
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	21 DA-A	21 DA-A				
Trt No.	Treatment Name	Rate	Appl Unit	Code								
1	Sonalan	2.33	pt/a	A	0.0	92.5	90.0	91.3	97.5	87.5	0.0	86.3
2	Sonalan	2.33	pt/a	A	0.0	90.0	87.5	95.0	95.0	86.3	0.0	88.3
3	Dual II Magnum	1.33	pt/a	A	0.0	97.5	96.3	97.5	96.3	96.3	0.0	97.5
3	Lorox DF	2	lb/a	A								
4	Untreated				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LSD P=.05					.	6.25	6.29	5.03	6.83	9.61	.	10.97
Standard Deviation					0.00	3.91	3.93	3.15	4.27	6.01	0.00	6.86
CV					0.0	5.58	5.74	4.43	5.91	8.9	0.0	10.09

Could not calculate LSD (% mean diff) for columns 1,7,13 because error mean square = 0.

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Pest Code		CHEAL	SOLAM	AMARE	POLCO	SOLTU	DIGSA	CHEAL	AMARE			
Crop Code												
Rating Date		Jun-13-2018	Jun-13-2018	Jun-13-2018	Jun-13-2018	Jul-11-2018	Jul-11-2018	Jul-11-2018	Jul-11-2018			
Rating Type		control	control	control	control	injury	control	control	control			
Rating Unit		percent	percent	percent	percent	percent	percent	percent	percent			
Trt-Eval Interval		21 DA-A	21 DA-A	21 DA-A	21 DA-A	49 DA-A	49 DA-A	49 DA-A	49 DA-A			
Trt No.	Treatment Name	Rate	Appl Unit	Code								
1	Sonalan	2.33	pt/a	A	86.3	82.5	87.5	98.8	0.0	86.3	63.8	73.8
2	Sonalan	2.33	pt/a	A	85.0	91.3	95.0	100.0	0.0	92.5	65.0	75.0
3	Dual II Magnum	1.33	pt/a	A	87.5	92.5	92.5	100.0	0.0	82.5	97.5	96.3
3	Lorox DF	2	lb/a	A								
4	Untreated				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LSD P=.05				19.33	11.49	13.33	2.00	.	28.41	13.48	17.88
	Standard Deviation				12.08	7.18	8.33	1.25	0.00	17.76	8.43	11.18
	CV				18.68	10.79	12.12	1.67	0.0	27.19	14.9	18.25

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Pest Code POLCO
Crop Code
Rating Date Jul-11-2018
Rating Type control
Rating Unit percent
Trt-Eval Interval 49 DA-A

Trt No.	Treatment Name	Rate	Appl Unit	Code	
1	Sonalan	2.33	pt/a	A	85.0
2	Sonalan	2.33	pt/a	A	97.5
3	Dual II Magnum	1.33	pt/a	A	82.5
3	Lorox DF	2	lb/a	A	
4	Untreated				0.0
	LSD P=.05				29.33
	Standard Deviation				18.33
	CV				27.67

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