

Section V.  
Soil Arthropods

### **WIREWORM CONTROL IN POTATOES**

Juan Manuel Alvarez, Aberdeen R&E Center  
1693 S 2700 W; University of Idaho, Aberdeen, ID 83210.  
[jalvarez@uidaho.edu](mailto:jalvarez@uidaho.edu)

Efficacy trials in potatoes were conducted at the Kimberly R&E Center of the University of Idaho. The experimental plots consisted of four 25 ft long rows (36 inch row spacing), with the two central rows treated with the insecticide and the two bordering rows left as checks. Seed treatments and in furrow at planting application methods were included. The center two rows and the bordering rows of each plot were harvested the last week of September for wireworm

damage evaluations. Fifty tubers per each 25 ft row, for a total of 100 tubers per plot and 400 tubers per treatment, were examined for feeding damage. Fifty tubers per each check row were also examined. Weight and number of external feeding sites were recorded for each tuber. For percentage of affected tubers, a tuber with one or more wireworm holes was considered an affected tuber. A total of 8,000 tubers were examined for this experiment. Data were analyzed using an analysis of variance. A mean separation test (LSD,  $p=0.05$ ) was used to determine significant differences between treatments. The mean number of holes per tuber, percentage of affected tubers, weight per tuber, and USDA number one tubers (tubers weighing more than 114 grams and with no defects were considered number 1) were evaluated. Results are presented in the table below.

Treatment	Treatment	avg. holes/tuber	% USDA 1	% affected tubers	avg wt / tuber
1	Regent 3.2 oz/A	2.4 ed	44.5ab	71.3ab	183.7a
2	Mocap (63.9 oz/A)	2.1d	46.3ab	62.0ab	185.9a
3	Poncho 600 (0.16 oz/a)	4.3a	46.8ab	80.3a	177.3a
4	Poncho 600 (0.16 oz/a)	4.9a	46.3ab	79.0a	184.0a
	Admire pro systemic (5.7 oz/A)				
5	Poncho 600 (0.32 oz/a)	3.4bc	46.5ab	76.5a	186.4a
6	Admire pro systemic (5.7 oz/A)	2.8d	45.3ab	70.0ab	185.6a
7	Admire pro systemic (8.7 oz/A)	3.4bc	51.0a	75.5a	191.0a
	Regent SC4 (3.2 oz/A)				
8	Dow 1 (71.1 oz/A)	2.9bcd	48.3a	71.0ab	184.4a
9	Dow 2 (88.6 oz/A)	2.7d	45.25ab	61ab	183.1a
10	Dow 3 (107.4 oz/A)	1.6 f	44.5ab	53.5b	179.8a
11	Untreated control	2.8cd	38.2b	74.0ab	171.9a