

Section V
Soil Arthropods

**COMPARISON OF THREE SOIL APPLIED INSECTICIDES FOR THE CONTROL
OF WIREWORM IN POTATOES, 2000**

R. L. Stoltz and N. A. Matteson
University of Idaho, Twin Falls R & E Center
P. O. Box 1827, Twin Falls, ID 83303-1827
208/736-3600
bstoltz@uidaho.edu, nmatteson@uidaho.edu

Experimental plots were established on the UI Research and Extension Center, Caldwell, Idaho. Shepody potato seed was cut, weighed and treated with Tops MZ for in-furrow treatments or with the seed treatment compound Adage on a gm formulation per weight of potato basis on 4 Apr. After cutting, seed was placed in heavyweight plastic bags, the treatments applied and the bags then loosely closed to prevent condensation. Potatoes were planted on 5 Apr. Irrigation was by solid set sprinkler and soil type was Greenleaf-Owyhee silt loam. Three treatments and one untreated check plot were replicated four times in a RCB design. Individual plots were 4 rows (36 inch row spacing) wide by 25 ft long with 5 ft alleyways separating the plots. A rescue application was made to the untreated check on 9 Jun using Success, foliarly applied in a banded spray using a CO² backpack sprayer (10x nozzle tips, 20 gpa, 30 psi) for control of Colorado potato beetle. On 31 Jul the center two rows of each treatment plot were mechanically lifted and 50 tubers were randomly collected for damage evaluation. Tubers were examined and the total number of damaged holes per tuber was recorded. The mean total number of damage holes per 50 tubers and the percentage of damaged tubers per treatment is presented. Data were analyzed using ANOVA and Newman-Keuls multiple means comparison.

Damage from wireworm based on holes/50 tubers was significantly reduced by all treatments from the untreated check. There was a similar trend observed in percent damaged tubers, where the treatment plots showed 13 to 18 percent damaged tubers and the untreated check showed over 30% damaged tubers. There were no significant differences between any of the treatment plots in the percent damaged tubers, however.

Treatment	Rate	Damage	
		Mean # holes/50	%Tubers damaged
Check (Maxim)	---	16.5 b	31.5 b
Platinum 2SC	0.125 lb AI/acre	6.3 a	18.0 a
Admire 2SC	0.249 lb AI/acre	4.5 a	14.0 a
A12142 (Adage)	7.95 oz/cwt	5.1 a	13.0 a

Means within a column with the same letter are not significantly different (P = 0.05; Newman-Keuls).