

**Section V**  
**Soil Arthropods**

**WIREWORM CONTROL WITH SEED TREATMENT INSECTICIDES, 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 obtained, cut, weighed and treated on a gm or cc formulation per weight of potato basis on 4 Apr. After cutting, seed was placed in heavyweight plastic bags, dry formulations (Adage, Gaucho) applied, and the bag then loosely closed to prevent condensation.

Liquid seed treatment Genesis was applied to cut seed that was spread in a single layer on 5 ml plastic sheeting. The appropriate amount of chemical was mixed with enough water to bring spray volume to 30 ml. The mixture was sprayed onto the potatoes using a small hand pump sprayer that produced a fine mist spray. Sprayed seed pieces were allowed to dry before treating with fungicidal dusts as previously described.

Potatoes were planted and Admire applied in-furrow on 5 Apr. Irrigation was by solid set sprinkler and soil type was Greenleaf-Owyhee silt loam. Seven 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 of Success was made on 9 Jun to all plots where needed and foliarly applied in a banded spray using a CO<sup>2</sup> 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 damage 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 was significantly reduced by both Gaucho treatment rates and the high rate of Genesis + Tops MZ treatment from the untreated check. Although there were no significant differences in the percentage of damaged tubers, a reduction of percent damaged tubers was observed with most of the seed treatments compared to the untreated check.



Treatment	Rate	Damage rating	
		Mean # holes/50	%Tubers damaged
Check (Maxim)	-----	12.1 b	30.0 a
Admire 2SC	0.33 oz/cwt	6.6 ab	20.0 a
A12142 (Adage)	0.08 oz/cwt	7.0 ab	17.0 a
A12142 (Adage)	0.09 oz/cwt	7.1 ab	21.5 a
Gaucho	8.0 oz/cwt	3.4 a	11.5 a
Gaucho	12.0 oz/cwt	3.8 a	12.5 a
Genesis+Tops MZ	0.6 fl oz/cwt+12 oz/cwt	6.6 ab	19.0 a
Genesis+Tops MZ	0.8 fl oz/cwt+12 oz/cwt	4.4 a	12.5 a

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

2000ww-st-infurrow.doc