

Section 1  
Mites and Sap-sucking Insects

Grape Phylloxera in Washington

Mike Haskett  
Washington State Department of Agriculture  
Yakima, WA 98901

Wyatt Cone  
WSU-IAREC, P.O. Box 30  
Prosser, WA 99350

The grape phylloxera, Daktulosphaira vitifoliae (Fitch), was recovered from roots of Vitis labrusca (Concord) and Vitis vinifera (wine grapes) in a survey conducted by WSDA in southcentral Washington. Preliminary results of the survey and aspects of grape phylloxera biology will be presented.

Section 1  
Mites and Sap-sucking Insects

Grape Leafhopper Control

W. W. Cone and M. M. Conant  
WSU-IAREC, P.O. Box 30  
Prosser, WA 99350

The third year of testing fenpropathrin (Danitol<sup>R</sup>) for control of western grape leafhopper was accomplished with very favorable results. Trials during 1986 and 1987 showed that the lowest rate of fenpropathrin (0.05 lb AI/A) was equal to dimethoate used at 1.0 lb AI/A and when used at 0.1 lb AI/A was clearly superior to any other treatment tested. The trial in 1988 was designed to compare the two rates (0.05 and 0.1) of fenpropathrin with guthion (0.5), Sevin XLR (1.0), dimethoate (1.0), and an untreated check.

Plots consisting of 6 vines of Chenin blanc grapes were replicated in a randomized block design on WSU-IAREC Headquarters field H6. Data for efficacy was obtained by counting the number of live nymphs on the underside of 10 leaves picked at random from each vine (6/plot). These data showed that all plots had about the same number of leafhopper nymphs on July 19 prior to being sprayed July 22.

The first post-treatment count was made on July 29. Fenpropathrin quickly reduced leafhopper numbers. The 0.1 rate reduced leafhopper numbers to zero while the 0.05 lb AI/A rate was the same as Sevin XLR (1.0) and dimethoate (1.0). Counts were made at approximately weekly intervals until September 20. These data were statistically analyzed (ANOV) and treatment means compared using Duncan's Multiple Range Test (DMRT) at the 1% level of significance. Means for the guthion 0.5 lb AI/A treatment were usually significantly better than the untreated check but not as good as the other compounds tested. The DMRT showed the other treatments to be equal in effectiveness. Leafhoppers were present in low numbers in the Sevin XLR, fenpropathrin (0.05) and dimethoate (1.0) plots two weeks after treatment. Leafhoppers reappeared in those plots in this order: Sevin XLR (1.0) after 3 weeks, dimethoate (1.0) after 4 weeks, fenpropathrin (0.05) after 6 weeks. Fenpropathrin (0.1) was still effective after 8 weeks.