

Final, year-end report (July 2012)

## Virginia Wine Board

# Characteristics of grapevine yellows-susceptible vineyards and potential management strategies

### Principal Investigator:

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Type of Project: Research  
Amount funded: \$37,964  
Funds remaining (6-30-2012): \$34,285.63 (see funding notes)

### Objective:

1. Identify phytoplasma alternative hosts in and around GY-affected vineyards and attempt to identify the characteristics of vineyards that predispose them to increased risk of GY
2. Evaluate efficacy of potential Grapevine Yellows management practices
  - a) Can targeted insecticide applications reduce infection?
  - b) Does the nature of vineyard floor management affect incidence of disease?
  - c) Does the removal of affected vines or vine parts (e.g., a cordon) limit disease spread?

### Updates:

This project has incurred some significant delays in implementation, as indicated in a recent update to the Wine Board. The project was originally added to the 2011-2012 round of proposals (second RFP for FY12) due to stakeholder requests to explore means of reducing the impact of grapevine yellows in Virginia vineyards. Funding had been sought to hire a research associate and reinstate research on the disease. My plan was to advertise the position and hire someone as early as January 2012. A position description was developed and advertised in October/November 2011. We had 12 applicants, of whom 4 were interviewed in January 2012. Three of the top 4 candidates were foreign nationals and the position was ultimately offered to one of those three. Unfortunately, family circumstances prevented that person from accepting the position. The second highest rated candidate was offered and accepted the position; however, this person (Teresa Stoepler) will not be able to start until 1 August 2012. Dr. Stoepler is a highly trained plant/insect ecologist and has considerable potential to help answer questions about the insect vector/alternative host complex that is part of grapevine yellows disease.

Dr. Stoepler and I recently met with Dr. Robert Davis (USDA/ARS, Beltsville, MD) who remains committed to helping as a team member with this project. We have laid out plans for 2012, but are looking at a multi-year project and considering additional funding opportunities to support

the effort. North American Grapevine Yellows is a regional problem, and not isolated to Virginia. While it is unfortunate that we have roughly a 6-month delay in starting work with the project, I do feel that we have identified a highly competent researcher for the project and some of the additional elements of the research program are beginning to be assembled (e.g., the cooperation of the USDA/ARS lab). A continuing funding proposal was submitted to the Wine Board in March 2012, primarily providing salary support for the post-doctoral research associate.

Although she does not start until 1 August 2012, Dr. Stoepler and I visited a number of vineyards on 13 July to survey yellows. Vineyards were chosen to span those that are at low risk (e.g., Shenandoah Springs in Shenandoah Co.) to those that are at high risk (e.g., Rappahannock Cellars in Rapp. Co.). Plans in August include broadening the surveys in Loudoun County (high risk) and as far south as the NC border, and east into the coastal plain (low risk). Our initial goals will be to catalog features of these vineyards that might have a bearing on their relative risk of grapevine yellows.

We are also working with a select group of growers to further explore timing of insecticides that might be helpful in reducing the infection rate in high risk vineyards.

**Funding notes:**

Funds expended on this project (\$3,678) comprise cost of advertising, recruiting and interviewing candidates for the post-doctoral position, as well as travel arrangements to have the hired candidate (Teresa Stoepler) visit Winchester on two occasions to discuss the research plans for late-summer, 2012.