

2021 Report

Title:

Creation of a Web-based Pierce's Disease Index to Improve Cultivar Recommendations

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Abstract:

Pierce's disease (*Xylella fastidiosa*) is a devastating disease of grapevines in the Deep South; however, the range appears to be increasing as the disease has been found in other states well outside of this region. With the climate continuing to warm and winters becoming shorter, it is likely the disease will establish itself farther north in regions that previous had no concern of it. While considerable research has been done in California on *Vitis vinifera* grapes, relatively little consideration has been giving to interspecific hybrid grapes in the Deep South. The initial objective of this project is to create an index or scale of potential PD susceptibility, tolerance, and resistance for southern bunch grapes.

Objectives:

The overall objective of the project is to create a web-based Pierce's disease index (PDI) for cultivars grown in the South. It will help provide quantitative recommendations for growers. We will also create a web-based app prototype to contain and disseminate the information with further linkages to the "Guides to Variety Performance" database being compiled by the University of California-Davis in conjunction with the National Grape Research Alliance.

Activities:

Activities to be covered under this grant proposal (1-year):

Step 1: Create list of grape cultivars

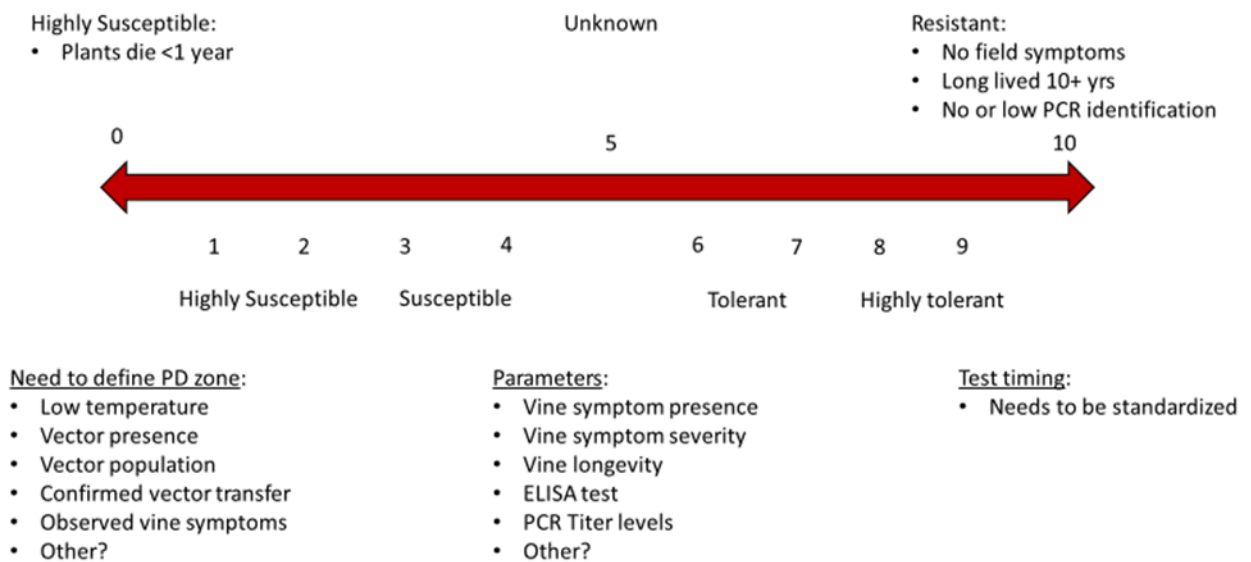
Progress: A list of southern, PD-tolerant grape cultivars has been created.

Step 2: Write descriptions of grape cultivars

Progress: Descriptions of some of the grape cultivars has been completed and more are in-progress.

Step 3: Assign PDI based on credible published and unpublished reports

Progress: The research into this has begun but more in-depth literature review is necessary for many of the cultivars. The scale to be use has been created (see below).



Step 4: Build prototype of user-friendly webapp for use by growers in southeastern U.S.

Progress: A meeting has been scheduled with Mississippi State University application specialists to discuss options and to begin the design of the webapp.

This proposal has been extended for an extra year.