



Biorational Control for Treating Pierce's Disease

The University of Florida is actively seeking companies interested in commercializing a novel treatment that will protect grapevines and other produce from harmful diseases. Pierce's Disease (PD), which adversely affects vineyards and other desirable plants, has threatened the profitability of the billion dollar grape and wine industries. Losses from PD exceed hundreds of millions dollars. The only feasible treatment for the disease is genetically controlled plant resistance, a method which has a negative impact on fruit quality. Now, however, researchers at the University of Florida have discovered a treatment that will prevent Pierce's Disease while maintaining the fruit quality necessary for financial success and wider profit margins.

Application

Novel method for preventing Pierce's Disease in grapevine, peach, plum, coffee, citrus, urban trees and ornamental shrubs

Advantages

- ◆ Only product available for the control of Pierce's Disease, providing licensees with a dominant share of the market
- ◆ Controls the spread of Pierce's disease in crop, reducing costs associated with crop loss and crop damage
- ◆ Maintains the fruity characteristics of the crop, increasing marketability of the produce



Merlot grape vine effected by Pierce's Disease (*Xylella fastidiosa*).

The Technology

This biorational control for treatment of Pierce's Disease involves injecting a closely related benign strain of *X. fastidiosa* using a pin-picking technique. This novel strain, known as EB92-1, is genetically similar to the plant-destroying pathogen. By injecting the stain into grapevines in the vineyard, growers can induce resistance to Pierce's disease for 3 to 4 years. Following this initial period, booster shots maintain the plants' resistance to PD. This method can also be used to reduce the incidence of leaf scorch in desirable plants.

Biorational Control for Treating Pierce's Disease

The Inventor



Donald L. Hopkins is a Professor in the University of Florida College of Agricultural and Life Sciences, Institute of Food and Agricultural Sciences (IFAS), Department of Plant Pathology. He is also Interim Director of the Mid-Florida Research & Education Center. Dr. Hopkins earned his undergraduate degree in Agriculture and Chemistry from Western Kentucky University and completed his doctoral degree in plant pathology at the University of Kentucky. He was a Post Doctoral Associate at the University of Wisconsin, before joining the University of Florida faculty in 1969.

Dr. Hopkins' research accomplishments include solving many challenges to crop production, such as control of bacterial fruit blotch in the watermelon. He was the first to show that the causal agent of Pierce's disease of grapevine could be controlled with antibiotics and was not a xylem virus, as it had been assumed to be for many years.

He was named as a Fellow in The American Phytopathological Society (APS) in 1995 and has served as Councilor, Vice President and President for the Southern Division on APS, Associate Editor of Plant Disease and as a member of the Public Responsibilities Committee. His submission to the Florida State Horticultural Society was deemed an Outstanding Paper in the Krome Section. Dr. Hopkins also helped organize and chaired a Watermelon Research-Industry (Seed, Transplant, and Grower) committee on watermelon fruit blotch research. He has authored and edited hundreds of published articles, and is eager to work with industry to commercialize this exciting new technology.

contact

Kevin Boggs
University of Florida
Office of Technology Licensing
352/392-8929 • email: kboggs@ufl.edu

Reference UF #11252 - Patent Pending



UNIVERSITY OF
FLORIDA

Office of Technology Licensing

*Facilitating Technology Transfer
To Serve Faculty and Community*

www.otl.ufl.edu