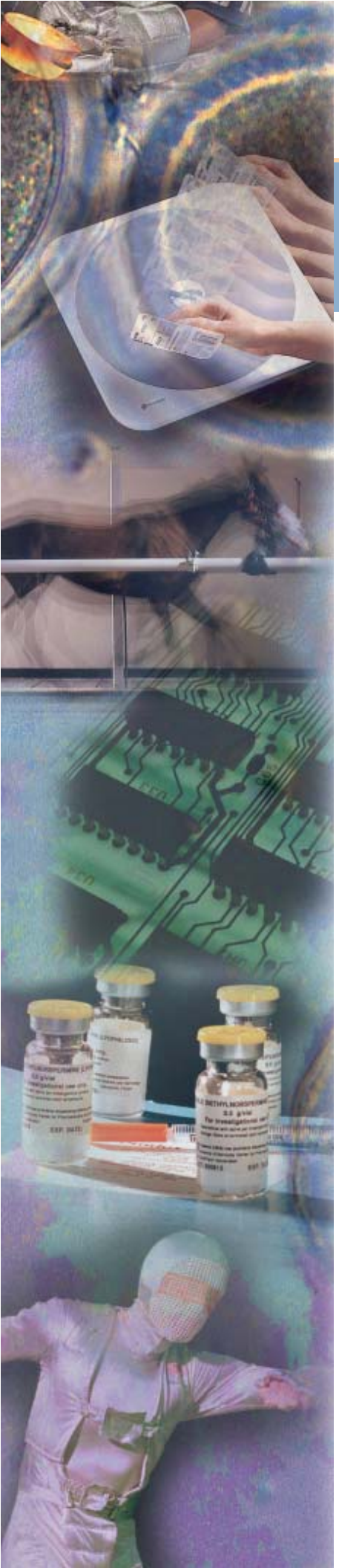


UNIVERSITY OF FLORIDA *seeks partner to license*

# 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 from Pierce's Disease (PD). The pathogenic bacteria (Xylella fastidiosa) responsible for PD kills many European varieties of grapevine and severely decreases productivity of other susceptible crops such as citrus and peach trees. Pierce's disease is threatening the profitability of California's grape and wine industries and limits the expansion of this industry in the southeast states. Losses from PD exceed hundreds of millions dollars. Although a transgenic solution to PD has been identified, the implementation of genetically modified (GM) grape vines does not offer an immediate solution due to the time and money required to develop and register GM crops, and concerns about consumer acceptance. Fortunately, the treatment discovered by researchers at the University of Florida can be used immediately to protect grape vines against Pierce's Disease as well as help control the spread of X. fastidiosa between susceptible crops.*

## Application

Novel method for preventing Pierce's Disease in grapevine and related diseases in peach, plum, coffee, citrus and susceptible ornamental shrubs

## Advantages

- Controls the spread of Pierce's disease in vineyards, reducing costs associated with crop loss and vector control treatments
- Only treatment product available for the control of Pierce's Disease
- May allow the cultivation of varieties of grapevines that are highly susceptible to PD in regions of the country with a high endemic incidence of the disease

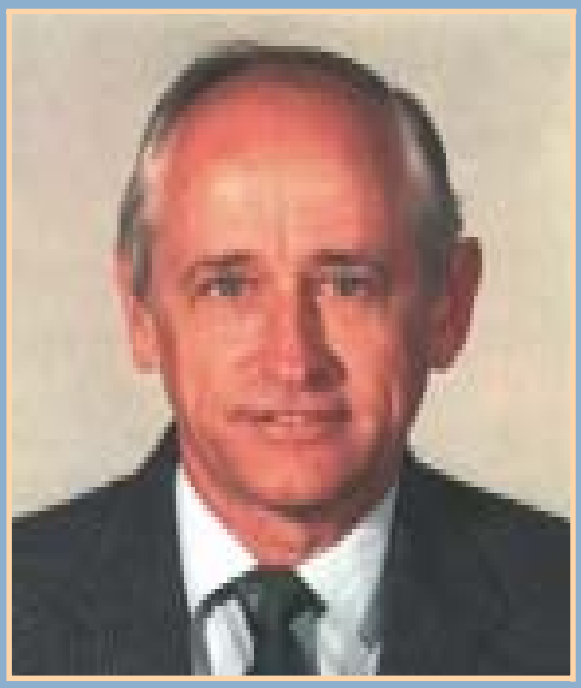
Merlot grape vine effected by Pierce's Disease *(Xylella fastidiosa).*

## The Technology

This biorational control for treatment of Pierce's Disease involves injecting a closely related benign strain of *X. fastidiosa* using a pin-pricking 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 severity of leaf scorch in plums and almonds and citrus variegated chlorosis in orange trees.

# 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

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*Reference UF #11252 - Patent Pending*

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