

# EPIDEMIOLOGY AND MANAGEMENT OF *XYLELLA FASTIDIOSA* AND OTHER EXOTIC AND INVASIVE DISEASES AND INSECT PESTS

CROP DISEASES, PESTS AND GENETICS RESEARCH UNIT  
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Project 5302-22000-008-00D scientists

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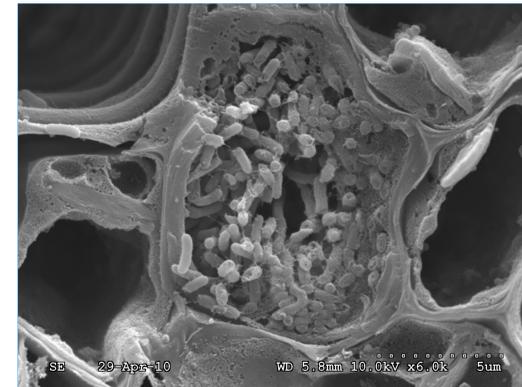
Pierce's disease of grapevine



Glassy-winged sharpshooter



*Xylella fastidiosa* occluding *Arabidopsis* xylem



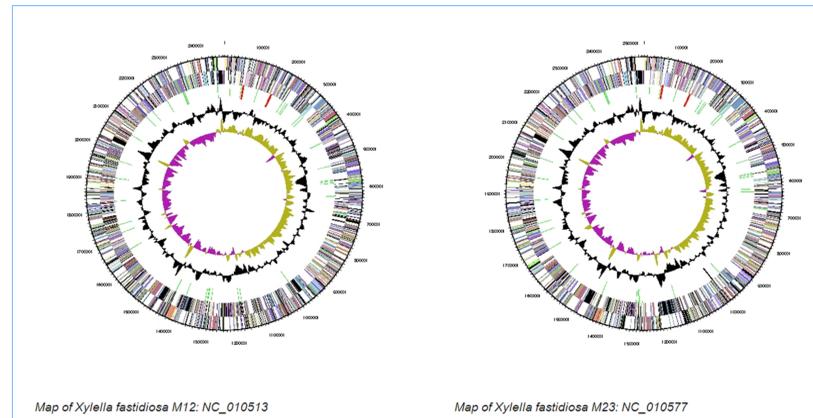
Almond leaf scorch disease



Advanced table & raisin grape selections with PD resistance derived from wild *Vitis* sp.



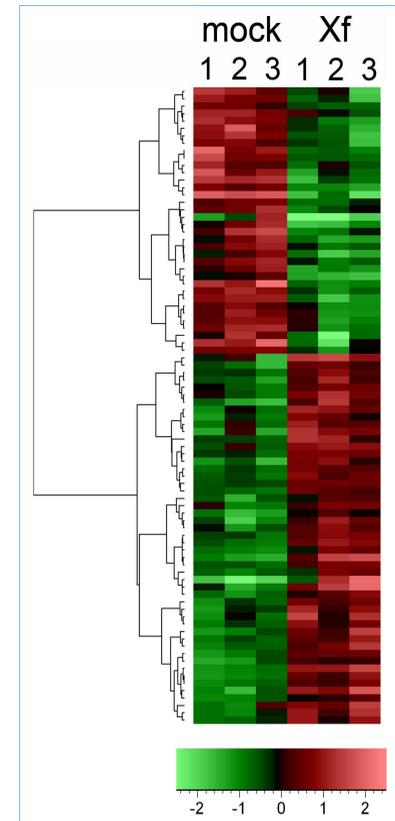
Complete genomes of two *Xylella fastidiosa* strains sequenced



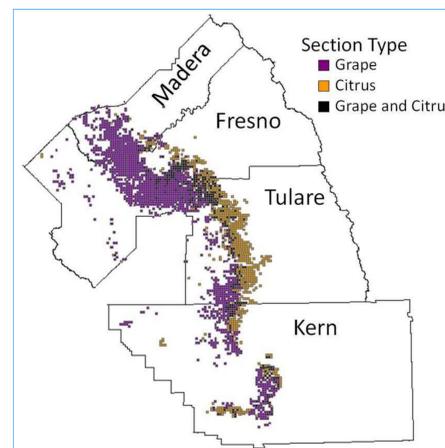
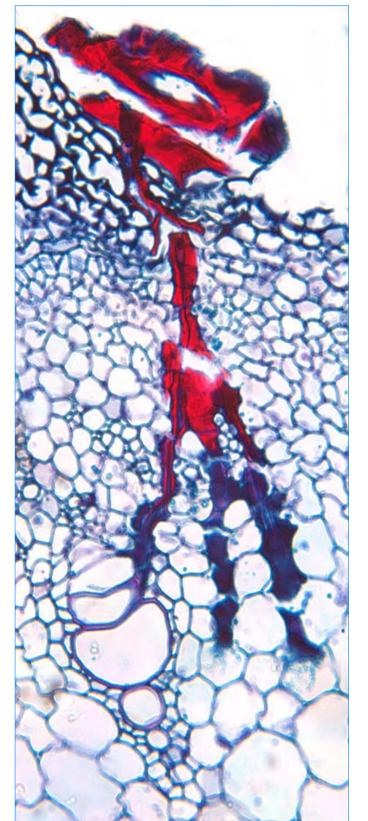
Reservoirs identified & assessed as sources of bacteria and insect vectors



Differential host gene expression in response to *Xylella fastidiosa*



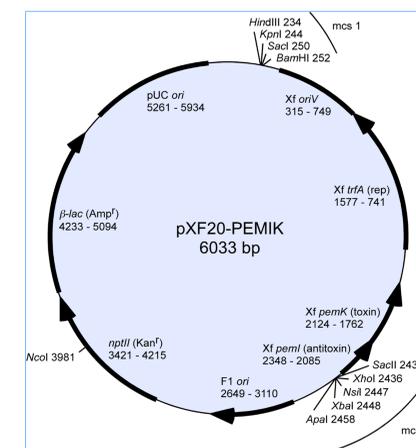
Mechanisms of insect transmission examined



Risk of future Pierce's disease epidemics assessed using GIS



*A. thaliana* evaluated as model host of *Xylella fastidiosa*



*Xylella fastidiosa* plasmid engineered as stable gene shuttle vector

Crop Diseases, Pests and Genetics Research Unit URL:  
[http://www.ars.usda.gov/Main/site\\_main.htm?modecode=53-02-15-15](http://www.ars.usda.gov/Main/site_main.htm?modecode=53-02-15-15)