



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



2021 Agricultural Outlook Forum

***Building on Innovation:
A Pathway to Resilience***

Issues in pest management: Citrus greening

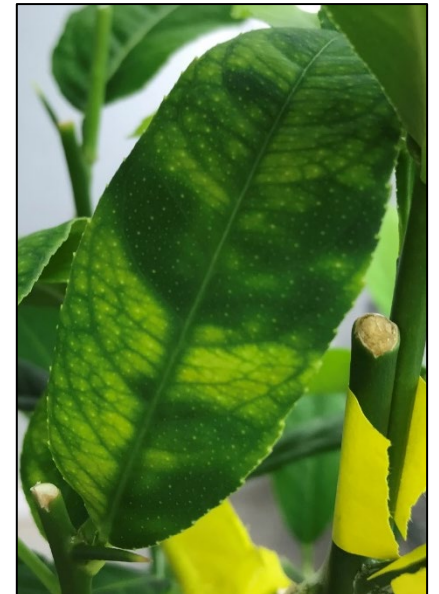
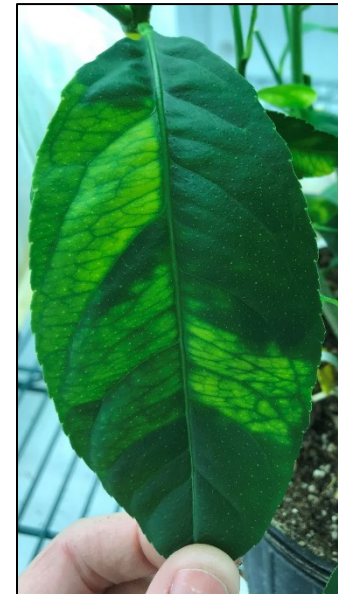
Introduced by Laura A. Fleites, PhD

AgroSource, Inc.



Citrus greening disease (Huanglongbing)

- Associated with *Ca. Liberibacter asiaticus* (CLas), *africanus* (CLaf) or *americanus* (CLam)
- Vector, *Diaphorina citri* present in FL since 1992
- CLas first detected in the U.S. in Miami-Dade county in 2005
 - Georgia, Louisiana and Mississippi, 2008
 - South Carolina, 2009
 - California and Texas, 2012
 - Alabama, 2017

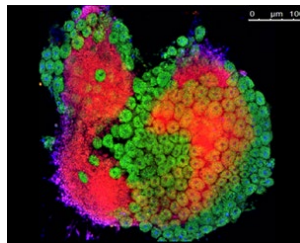


The pathosystem

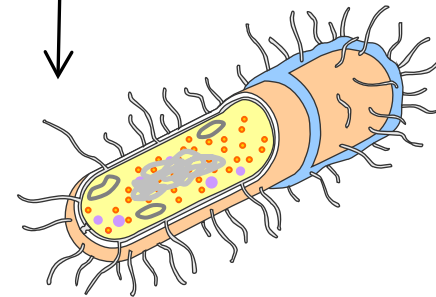
- No resistant cultivars
- Delayed onset of disease symptoms



Diaphorina citri
(ACP)



Proffella= red
Carsonella = green
DAPI= blue



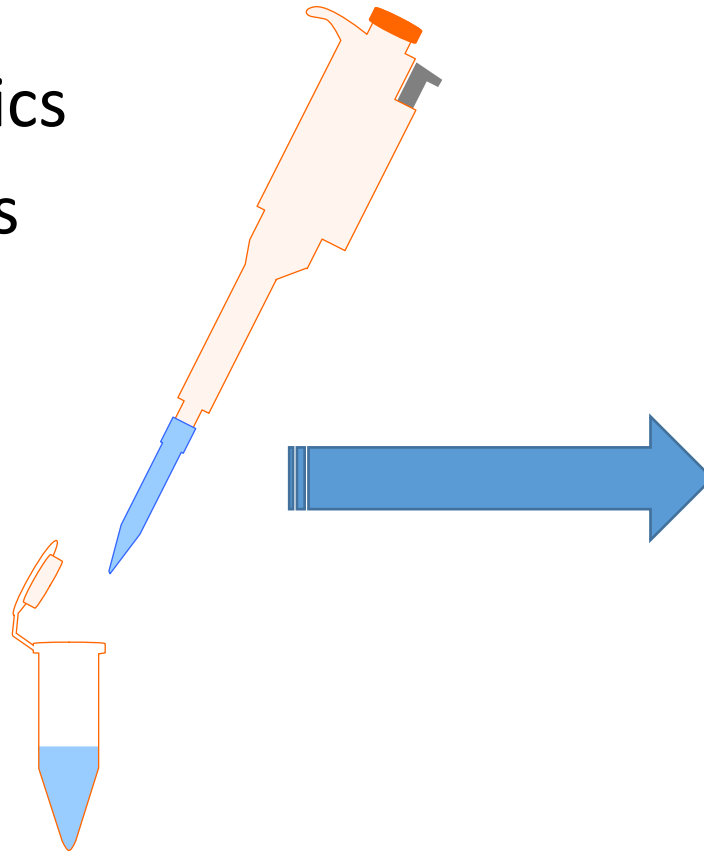
Candidatus
Liberibacter asiaticus

- Highly efficient disease transmission
- Amenable to CLas infection

- Unculturable
- *L. crescens* as a model
- Prophage

Intensive research efforts for HLB management

- Multi 'omics
- Many candidate therapeutics
- Progress in culturing efforts
- Gene editing of psyllids
- Transgenic approaches
- New delivery strategies for therapeutics



Upcoming speakers

- Monique Rivera, Cooperative Extension Specialist, UC Riverside
- Bryony Bonning, Professor of Entomology and Nematology, UF
- Michelle Heck, Research Molecular Biologist, USDA-ARS EPPRU

