

GREENING MANAGEMENT

- Restricted propagation and movement of *Murraya paniculata* and *Severinia buxifolia*, plants known to harbor the bacterium
- Routine scouting (minimum of 4 times a year)
- Removal of infected trees
- Integrated pest management
- Use of disease-free nursery trees
- Reduction of the inoculum by frequent disease surveys and removal of symptomatic trees
- Suppression of Asian citrus psyllid populations through chemical, biological and cultural controls

DIAGNOSTICS

- PCR (Polymerase Chain Reaction) is the only way to positively identify citrus greening
- Three testing sites are available :
- Southern Gardens Diagnostic Laboratory
111 Ponce de Leon Avenue
Clewiston, FL 33440
(863) 902-2249
- UF/IFAS Southwest Florida REC
2686 SR 29 N
Immokalee, FL 34142
(239) 658-3400
<http://swfrec.ifas.ufl.edu/hlb/>
- Florida Division of Plant Industry
1-800-282-5153

RESOURCES

- Citrus Research and Education Center website www.crec.ifas.ufl.edu
- Greening Symptoms Laminated Sheet
- Greening Symptoms versus Nutritional Deficiencies Laminated Sheet
- Greening Symptoms versus Blight and Tristeza Laminated Sheet
- Greening Field ID Pocket Guide
- Greening Training DVD
- Greening Screensaver
- 2008 Florida Citrus Pest Management Guide

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CITRUS GREENING



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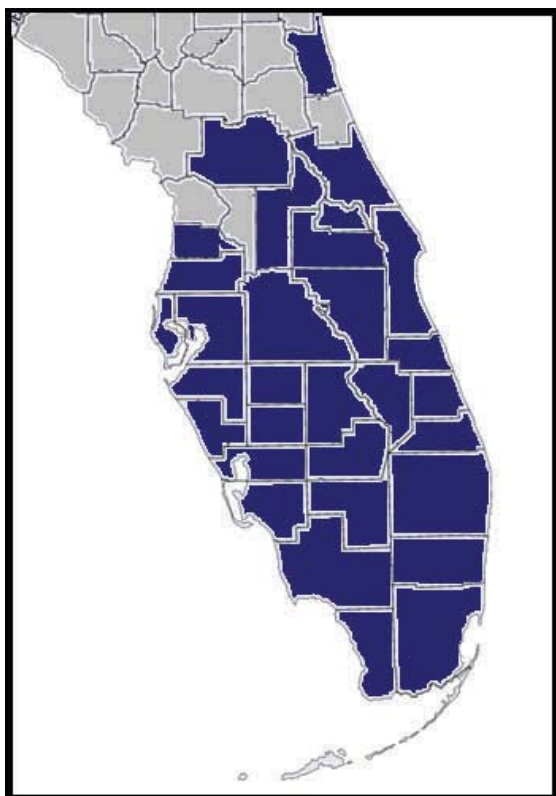
A serious threat to the
Florida Citrus Industry

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FLORIDA
IFAS Extension

July 2008

GREENING HISTORY

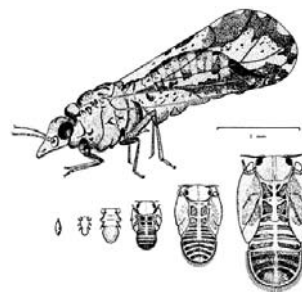
- The vector, Asian citrus psyllid, was first found in Florida in 1998
- Citrus greening disease was first detected in south Florida in August 2005
- As of October 2006, greening infected trees had been found in twelve counties
- By October 2007, infected trees had been discovered in twenty-eight counties
- Symptoms can be found year round, but are more prominent September through March



Counties in dark blue have confirmed greening finds as of July 2008

GREENING VECTOR

- Asian citrus psyllid (*Diaphorina citri*)
- Five nymphal stages
- Numerous generations per year
- Egg to adult in 2 weeks at 75° to 85° F
- The egg stage lasts an average of 3 to 4 days
- The duration of the nymphal stages is about 12 to 14 days at 82°F
- Adult psyllids may live for several months
- Psyllids can acquire the greening pathogen from infected trees, regardless of whether symptoms are present on the tree



D.L. Caldwell, UF



• The longer psyllids remain uncontrolled and allowed to feed on infected trees, the higher the

chance that those psyllids will become capable of acquiring and spreading greening to other trees

- Psyllid populations are best managed by controlling adults prior to the presence of new flush which facilitates rapid population growth
- Chemical control of the psyllid and removal of infected trees are the only methods currently available to manage the spread of greening disease



GREENING SYMPTOMS



Vein corking

Fruit remain green at the blossom end



Yellow shoots



Yellow veins



Reduced fruit size



Blotchy mottle – key diagnostic symptom

For more information, please contact the University of Florida, IFAS, Citrus Research and Education Center, Lake Alfred 863-956-1151