Citrus Regulations and the Citrus Health Response Program Framework in Florida

Presented by
Wayne N. Dixon, Ph.D.
Assistant Director
# Citrus Regulations and the Citrus Health Response Program Framework in Florida


<table>
<thead>
<tr>
<th>Citrus Diseases</th>
<th>Industry Updates/Grower Services</th>
<th>Disease Detection Maps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canker</td>
<td>Greening</td>
<td>Industry Information:</td>
</tr>
<tr>
<td>Citrus Nursery &amp; Budwood Protection</td>
<td>Biomass Citrus Nursery Pine Straw Quarantines</td>
<td>Canker</td>
</tr>
<tr>
<td>Harvesting</td>
<td></td>
<td>Regulations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photos</td>
</tr>
<tr>
<td>Contacts</td>
<td>Offices</td>
<td>Residential</td>
</tr>
</tbody>
</table>

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Citrus production in the United States has been an important part of our rich and abundant agricultural heritage dating back to the introduction of citrus into St. Augustine, Florida in the 1500s and the planting of the first commercial grove in 1823 by French Count Odel Philippe.
Annual Production Value

- Florida – $1.8 Billion
- California – $1.0 Billion
- Texas – $72.6 million
- Arizona – $62.9 million
- Louisiana – $1.6 million

US = $2.95 Billion

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
History of Citrus Greening in Florida

Asian citrus psyllid
Diaphorina citri Kuwayama

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Asian Citrus Psyllid
First Florida Find

1998

Found Asian citrus psyllid in Delray Beach

- No associated greening found
- Nursery Quarantines and other actions implemented
- Abundance of host material allowed insect to spread and become established throughout Florida
- Survey efforts intensified, particularly in areas with concentrations of people from countries where greening is endemic

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Citrus Greening
First Florida Find

2005
Cooperative survey effort by state and USDA found citrus greening in South Florida

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Citrus Health Response Program

• Once citrus canker and citrus greening were determined to be established in Florida, the USDA and the Florida Department of Agriculture and industry agreed change was at hand:

Citrus Health Response Program
An evolvement from the Citrus Canker Eradication Program
Citrus Health Response Program

Underlying CHRP were the basic principles for management or reduction of HLB through the prevention or reduction of inoculum in the field and structures by:

• Disease-free planting material
• Control of the psyllid population
• Timely removal of infected trees

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
CHRP Goals

- Determine best strategies for ensuring a healthy citrus industry into the future
- Work cooperatively with government agencies, research institutions and industry to build effective management program
- Develop secure citrus germplasm and citrus nursery program
- Work toward effective disease/disease-vector management program for groves
- Provide defendable phytosanitary protocol that allows fresh fruit movement to all markets
• **Trips to Brazil, Argentina, South Africa, China, and Vietnam were taken to determine what others are doing to control citrus diseases**
  
  – **Frequent surveys necessary to determine disease/insect prevalence**
  
  – **Disease/vector control measures must be implemented**

**UF/IFAS disease/vector control management strategies developed and made available**
What Was Important in the Transition from an Eradication to a Response Program?

- HLB was recognized as one of the most destructive citrus diseases
- Long-term management rather than eradication
- Renders fruit inedible, eventually kills tree

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Disease Impacts

• In areas where the disease is endemic, citrus trees live only for 6-8 years, and most never bear edible fruit.

• Fruit from infected plants has poor color (hence the name greening) and bad flavor.
CHRP In Development

- Group was formed to discuss level of regulatory oversight necessary at production level
  - Still uncertain about what management practices will work best but improving!
  - One disease management strategy “does not fit all”
  - Need for ongoing exchange of information and educational outreach

Over time, program elements are proposed and adopted to address these issues
The Citrus Health Response Program was developed to provide protection at every level of citrus production.

- It started with scoping sessions in late 2005 and early 2006 by key stakeholders in citrus protection and production who discussed various options from which came the concept of a Citrus Health Response Program.
- Through the CHRP, state and federal agriculture officials, and the scientific and academic community continue to work with industry on how to best manage greening and other citrus diseases.
- FDACS, in cooperation with UF/IFAS, has developed training materials to help the industry deal with the increased challenges of growing citrus.

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Recognition of the Challenges of Citrus Greening and Other Diseases

- Limited knowledge in many cases
- Difficult to detect disease before symptoms appear and spread continues
- Illegal importation of infected plant material
High Risk Areas- Association with HLB and other Diseases

- Citrus diseases are most likely to travel with infected plant material.

- Neighborhoods where people from parts of the world that have citrus diseases live are high risk.

- USDA baggage inspectors intercept people smuggling citrus trees (with roots) from Asia in their baggage 2-3 times per year—how much actually occurs is unknown.

- Hobbyists and others may import budwood from parts of the world where the disease occurs which do not go through Florida’s germplasm indexing program.
Citrus Greening and Other Disease Challenges

- Disease can be transmitted from apparently healthy budwood sources
- Pesticides will kill psyllids, but number of applications and quantities necessary to control populations are logistically, economically and environmentally challenging (Brazil)
  - Area-wide projects are underway with good preliminary results
Citrus Greening and Other Disease Challenges

- **Propogation Challenges:**
  - Citrus greening disease can be propagated from infected branches that do not show symptoms
  - Symptoms in nursery plants can be sporadic and inconsistent, even though most plants are infected
  - Citrus greening pathogens are difficult to detect, especially in asymptomatic tissue
• Changes in the Regulatory and Industry Landscape

- Movement and Protection of Citrus Budwood and Germplasm Facilities
- Established Rules on Nursery Stock Movement
- Established Rules on Greenhouse Construction for Psyllid Control
- GIS Services for Mapping Disease Movement
- Citrus Industry Self-Survey Programs
- Multiple Pest Survey with USDA APHIS PPQ
- Diagnostic Support (Laboratory Network)
- Biological Control Research
- Abandoned Groves
CHRP: Citrus Greening, Citrus Canker and others--What’s being done?

- **Assist Industry:** through education, training, and outreach
- **Disease Recognition Training:** identify HLB, citrus canker, CVC and citrus leprosis
- **Self-Survey Training:** plan, execute and document surveys
- **Train-the-Trainer:** improve and customize training program one-on-one

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Citrus Greening

What’s being done to control HLB?

• Citrus greening quarantine zone includes entire state of Florida

• **Nursery** - All citrus nursery stock that is produced or located within an established citrus greening quarantine is not eligible for movement or distribution outside of the citrus greening quarantine area, except citrus nursery stock intended for export to foreign markets –
  • Systems Approach development underway
Citrus Greening

Some “hindsight” observations

• Over 1,200 samples of psyllid adults and nymphs collected from various locations in Florida from visually healthy, as well as HBL-symptomatic trees, were analyzed to monitor the incidence and spread of HLB

• Study suggests that discount garden centers and retail nurseries may have played a significant role in the widespread distribution of psyllids and plants carrying HLB pathogens

• Spread of HLB may be detected one to several years before the development of HLB symptoms in plants
• 20% of the psyllids sampled have been positive for HLB
Citrus Greening

What’s being done to control HLB?

- Research on critical biological parameters necessary for management

Dundee Foundation Grove Facilities
Repurposing/Renovation for Proof of Concept Large Scale Biological Control Project with *Tamarixia radiata*

Asian citrus psyllid parasites from left: Diaphorencyrtus and *Tamarixia*
CHRP In Action: Outreach and Accomplishment Highlights

Citrus Health Response Program Overview
September 2009

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Abandoned Grove Initiative

Recognizing the pest and disease risks associated with abandoned groves, the state has initiated a comprehensive plan for their destruction. Key components include:

- Cataloguing all abandoned groves throughout the state
- Mapping all high-risk abandoned groves
- Notifying owners of abandoned groves and asking what their intentions are for said properties
- Informing owners that if their groves are not kept in production, they will not be considered part of the CHRP
- Informing owners that if they take action and eliminate any live citrus trees in abandoned groves, this will be considered a bonafide agricultural practice and owners will remain in compliance with CHRP guidelines, thus maintaining their agriculture exempt status.

Examples of abandoned groves throughout the state.
CHRP In Action: Outreach and Accomplishment Highlights

Other CHRP Program Highlights

✓ Gulf Citrus Growers Association Cooperative Aerial Citrus Psyllid Spray Program:
  DPI Immokalee office assisting with program which began December 1st and will continue to February 1st.
  Program involves spraying the outer boundaries of the GCGA’s area and working inward. UF/IFAS and DPI
  have been surveying areas to get estimated pre-treatment psyllid counts. Early reports indicate a relatively
  high percentage of grower participation; however efforts to increase participation continue.
✓ DPI CHRP offices continuing multiple-pest surveys, grower-requested surveys, site verifications and
  SHARE program. A small number of fresh fruit survey requests being received in Immokalee, Tavares,
  Winter Haven and Vero Beach offices.
✓ Winter Haven office has completed nursery environs surveys and has started on residential surveys
  targeting early detection of exotic citrus pests.

Summary of FY 7/1/08 - 6/30/09 Activities through May 2009

<table>
<thead>
<tr>
<th>Activity</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>FY Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-pest survey (MPS) #4</td>
<td>4,290 acres</td>
<td>4,061 acres</td>
<td>2,905 acres</td>
<td>65,448 acres</td>
</tr>
<tr>
<td>Multi-pest survey (MPS) #5</td>
<td></td>
<td></td>
<td>523 acres</td>
<td>523 acres</td>
</tr>
<tr>
<td>Fresh fruit survey</td>
<td>2,204 acres</td>
<td>277 acres</td>
<td>0 acres</td>
<td>37,694 acres</td>
</tr>
<tr>
<td>Grower requested survey</td>
<td>1,520 acres</td>
<td>2,302 acres</td>
<td>1,355 acres</td>
<td>18,405 acres</td>
</tr>
<tr>
<td>Nursery environs survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- commercial</td>
<td>474 acres</td>
<td>1,706 acres</td>
<td>1,251 acres</td>
<td>7,949 acres</td>
</tr>
<tr>
<td>- residential</td>
<td>486</td>
<td>154</td>
<td>46</td>
<td>4,734 properties</td>
</tr>
<tr>
<td>Fresh fruit applications</td>
<td>2</td>
<td>10</td>
<td>2</td>
<td>458**</td>
</tr>
<tr>
<td>Harvesting permits issued</td>
<td>199</td>
<td>21</td>
<td>0</td>
<td>4,387</td>
</tr>
</tbody>
</table>

* Numbers have been revised to reflect updated information
**Total includes 46 fresh fruit applications received in June 2008
CHRP In Action: Outreach and Accomplishment Highlights

Projected CHRP Activities for Fiscal Year July 1, 2008 - June 30, 2009

CHRP Dollars at Work*
State Activities
$13,428,242

- Multi-Pest Survey - 23%
- Budwood Protection/Boston Farms Construction - 22% **
- Fresh Fruit Survey - 15%
- Regulatory - 11%
- Nursery Inspection - 8%
- Data Processing - 7%
- Nursery Environ Survey - 4%
- Legal Services - 4%
- Administrative - 4%
- Public Education - 1%
- Grower Requested Survey - 1%
- Biocontrol - 1%

*Budget FY July 2008 - June 2009
** One time expense to construct greenhouse facility

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Gulf Citrus Growers Association (GCGA) - Asian Citrus Psyllid (ACP) Area-Wide Spray Program

DPI, through the CHRP, is assisting the GCGA and the University of Florida/Institute of Food & Agriculture Sciences with a program that involves spraying the outer boundaries and working inward of the GCGA’s commercial citrus areas. The CHRP component of the program involves scouting and conducting pre- and post-treatment psyllid counts. The program began in November 2008 with pre-spray psyllid surveys and continued through February with aerial and ground spraying, and post-spray surveys.

Survey Area:
- 132 blocks in 32 groves
- 10 stops made in each block (5 on borders and 5 inside)
- At each stop, 10 trees sampled

Pre-spray Survey Data (averages):
- 9 ACP adults were detected per 100 tap samples*
- 13% of trees had ACP-infested flush
- 20% of trees had citrus greening symptoms

Spraying Activities:
- 77,000 acres (34 groves) sprayed by air
- 4,000 acres (5 groves) sprayed by ground

Post-spray Preliminary Results:
- 88% reduction of psyllids by aerial spraying (compared to unsprayed groves)
- 71% reduction of psyllids by ground spraying (compared to unsprayed groves)

Next Steps:
- Post-bloom counts
- Further evaluation of survey results

*Psyllid counts are made using a method called tap sampling. A branch from each sample tree is tapped using a piece of PVC pipe to knock any psyllids present onto a board. The number of psyllids is recorded. Also recorded are other insects, including beneficial ones, that fall from the tree.
CHRP In Action: Outreach and Accomplishment Highlights

SHARE Program Overview
The Division of Plant Industry developed the Business Plan Share Program to assist growers and Florida’s citrus industry in a systematic effort to monitor and help control citrus canker, citrus greening and the Asian citrus psyllid. The project is administered under the state’s Citrus Health Response Program (CHRP), and provides for field scouting and sampling activities as well as data management and communications support services. The Program uses the Division’s scientific resources in addition to CHRP and other funded sources to analyze pest samples and evaluate data generated.

SHARE is a voluntary program in which interested growers can provide their CHRP Business Plan information to the Division, including pesticide and nutritional applications, and other relevant cultural practices. In cooperation, the Division agrees to scout one or more test blocks on a recurring basis for endemic and exotic pests and diseases. Test blocks are examined in a consistent scouting pattern for tree health and the presence of insects and diseases. Samples are taken for analysis and individual test results are made available to the participating grower. Patterns and trends in the data are expected to develop as the study of pests and the conditions of participating trial blocks continue. It is anticipated that field observations and data collection efforts eventually will lead to statistical reports, regional pest incidence and disease management information of notable significance to the citrus industry.

The Share Program began as a pilot project in July 2008. During the 11-month course of the project:
- It has grown from five (5) blocks in a single county to 31 blocks in 11 counties.
- It now consists of 1,346 grove acres located in 20 different sections across the state.
- Grove blocks currently range in size from 16 to 106 acres; however, the majority of blocks fall into the 20- to 40-acre range.
Citrus Health Response Program Overview
September 2009

Citrus Health Response Program Mission … Working together to produce healthy citrus
- Ensure security and maintenance of citrus germplasm and citrus budwood foundation stock
- Implement citrus nursery clean stock program
- Provide systematic surveys in support of defendable phytosanitary protocol that allows fresh fruit movement to all markets
- Support effective disease / disease vector management

Resources for the Industry … Tools to support citrus
- Compliance agreements and business plans designed to provide guidance, protect citrus production and allow fresh fruit movement to important export markets
- Grower Assistance Program – decontamination training, survey assistance, self-survey and business plans
- Best Management Practices
- Participate with growers in the Business Plan Share Program
- Identification and support for abandoned grove abatement

Citrus Germplasm Introduction Program … Important disease-free start
- Ensures citrus germplasm is free from any known graft-transmissible pathogens
- Each variety undergoes an intensive testing regime before release
- Provides approved germplasm to citrus budwood registration program
- New 20,000 sq ft facility at future Alachua County budwood site

Citrus Budwood Registration … Responding to disease pressures
- Provides clean budwood to citrus industry
- Facilities located outside of citrus-growing area
- 80,000 sq ft facility in Levy County
- Redundant 60,000-sq-ft location planned in Alachua County
Citrus Nursery Guidelines … Providing clean stock for nurseries
- Rules and regulations to protect industry, 5B-62
- Geographic separation of new nurseries and groves
- Citrus nursery stock is propagated and housed in approved insect-proof structures
- All citrus nurseries are on 30-day inspection cycle
- Compliance agreements are required

Biocontrol Initiatives … Natural solutions to pests and diseases
- FDACS/DPI, with support from USDA, is modifying the facilities at Dundee to work out the methods necessary to begin the mass rearing of Asian citrus psyllid parasites for release throughout the citrus-producing counties of Florida

Division of Plant Industry
Florida Department of Agriculture & Consumer Services
Charles H. Bronson, Commissioner
1-800-282-5153  www.fl-dpi.com/chrp
CHRP In Action: Survey and Regulatory

• Survey Activities
  – Multiple Pest Survey
  – Export Surveys
  – Nursery Environs Survey

• Regulatory Activities
  – Compliance agreements (CA) required
  – Grower/caretaker CA requires attachment of business plan

• Outlines decontamination, survey and disease management

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Citrus Health Response Program

Citrus Regulations

Florida is currently under a statewide quarantine by the USDA and no citrus fruit may leave the state unless the USDA has issued a limited permit. No Florida-grown citrus fruit may enter any citrus producing states or territories. This restriction includes homegrown citrus. Dooryard citrus fruit may move unrestricted within Florida, but may not move out of the state. Citrus plants or plant parts may not enter or leave Florida. Please contact the DPI helpline with questions 800-232-5153.

State

- 5B-62 Citrus Nursery Stock Certification Program
- 5B-63 Citrus Health Response Program

Federal

- USDA Commercial Fresh Fruit Movement
- USDA Expands Citrus Greening and Asian Citrus Psyllid Quarantine
Disease Detection Maps

Known Distribution of Citrus Canker/Citrus Greening (HLB) in Florida

Static Maps  |  Interactive Maps

Static Maps

Statewide Citrus Canker and Citrus Greening Map (updated weekly)

Statewide Positive Citrus Greening Sections (1.5MB)

Disease Spread of Huanglongbing as 15-mile Radius in Florida (2.6MB)
This map depicts the potential one-year spread of huanglongbing (citrus greening) from each of the sections (mi2) known to be positive for the disease. The 15-mile radius is based on data analyzed from commercial citrus farms in Brazil. It is important to note that since huanglongbing has been present in some parts of Florida for several years, the 15-mile disease spread could be considered a very conservative estimate from any single location. The disease spread as depicted suggests that all commercial citrus is within a 15-mile radius of some huanglongbing-positive section. Citrus growers may want to ensure that they are taking all precautions necessary to mitigate Asian citrus psyllid populations and other appropriate management practices such as scouting for the disease for the earliest detection possible.

Regional Citrus Canker and Citrus Greening Maps (updated weekly)
Click inside a colored area on the map below to view citrus canker and greening finds for that region:
Map of Greening/Canker Infestations

Citrus groves in green
Canker infestations in blue
Greening infestations in orange
CHRP offices denoted w/ ✫

Legend:
- CHRP Office Locations
- Commercial Citrus Production Areas
- Canker
- Greening (HLI) Specimens

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Interactive Maps

Download the current interactive ArcReader map data (13.8MB .zip file)

If you have any trouble with the directions below, please contact our helpline for assistance: 1-800-282-5153.

This map allows users to interact with up-to-date citrus canker and citrus greening data, depicting all commercial and residential greening and canker finds from Jan. 01, 2004 to present. Users can create, export, and print custom maps as well as zoom, pan, measure, and locate features such as addresses, counties, and PLSS section grids.
Citrus Health Response Program

Industry Updates and Grower Services

A communications plan is being implemented to provide the citrus industry with more frequent CHRP updates as well as access to pest and disease management strategies. This site will continue to be updated as materials are developed.

- USDA Revises Regulations for Movement of Citrus Fruit from Florida
- Commercial Fresh Fruit Shipment Procedures
- CHRP Overview September, 2009
- EU Survey for Shipping Europe in 09/10 season
- Abandoned Grove Initiative Information
- CHRP Update June 2009
- CHRP Update March 2009
- Greening and Canker Survey Deadline Extended Through February
- CHRP Update January 2009
- Citrus Greening and Canker Survey
- Citrus Greening and Canker Survey (spreadsheet)
- CHRP Update December 2008
- CHRP Update October 2008
Citrus Canker Quarantine Information: Schedule 20

Florida is currently (August 2006) under a statewide quarantine by the USDA and no citrus fruit may leave the state unless the USDA has issued a Federal Certificate.

» October 2009 - New citrus movement rules are now in effect. Please see the citrus movement information document or Federal Rule for more information.

» The citrus movement rule includes homegrown citrus. This means any dooryard citrus may move unrestricted within Florida, but may not move out of the state without a federal certificate. For more information please see the citrus movement information, Federal Rule or call the DPI helpline at 1-800-282-5153.

» Citrus Movement Information – October 23, 2009

» USDA Information - Federal Rule

» Shipping Residential Citrus

» No citrus plants or plant parts may enter or exit Florida
Established Rules on Greenhouse Construction

Florida Department of Agriculture & Consumer Services
Division of Plant Industry

Bureau of Plant & Apiary Inspection

Bureau Chief: Richard A. Clark clarkr@doacs.state.fl.us
P.O. Box 147100
Gainesville Florida 32614-7100
352-372-3505 ext. 154

Growing Citrus, and Other Hosts of Citrus Greening such as Orange Jasmine, Boxthorn, and Curry-leaf in Approved Structures

Examples of Approved Structures

Example of an approved structure

previous | index | next
(2) Effective January 1, 2007 newly propagated commercial and dooryard citrus nursery stock and all budwood source trees must be maintained in an approved structure at an approved site as follows:

- (a) An approved structure must have enclosed sides and tops built to exclude insects with positive pressure double-door entries. Sides and roofs shall at a minimum exclude melon aphids.

- (b) If cooling pads and fans are used, they must be enclosed with insect screen that will allow for adequate air displacement.
CHRP In Action:

Certification Program Highlights

- **Location:** sites must be a minimum of one mile from commercial groves
- **Sanitation:** all plant material and soil must be removed from equipment before entering/exiting nursery
- **Structure:** approved structure must have enclosed sides and tops and positive process double-door entries
- **Decontamination:** everyone who enters nursery must decontaminate with approved products
CHRP in Action: Citrus Germplasm and Citrus Nursery Requirements

- Levy County, Chiefland Budwood facility completed

- Second facility planned at UF/IFAS research farm (redundancy important to citrus budwood lines)
Citrus Nursery: Certification Program Highlights

- Eight (8) full-time DPI inspectors inspect 52 commercial citrus nurseries every 30 days
- To date, no citrus canker or citrus greening have been found in any of these nurseries
• Nurseries and Budwood – Key Elements

The following are minimum standards for citrus nurseries or budwood facilities:

– 1. Registration of all citrus nurseries and budwood facilities
– 2. Approval of citrus nursery and budwood facility sites
– 3. Geographic separation from concentrations of citrus trees
– 4. Production of citrus nursery stock and budwood sources in approved structures
– 5. Security and sanitation measures to prevent pest or disease introductions
– 6. Training and education
– 7. Inspections to verify pest- and disease-freedom in citrus nurseries and budwood facilities
– 8. Citrus nursery stock, budwood and seed certification

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Florida Citrus Nursery Certification Program, designed to protect new citrus plantings, is well underway

– 52 citrus nurseries are in compliance with the new citrus nursery regulations and have been registered with the state
Established Rules on Greenhouse Construction

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Nursery Environs Survey

– Under the newly approved guidelines, growing citrus within one mile of a commercial citrus nursery is prohibited, unless the nursery location was grandfathered in by the Department.

– Properties (residential and commercial) within one mile of commercial citrus nurseries will be surveyed annually for citrus pests and diseases. Control measures for any detected pests or diseases will be handled on a case by case basis.
Surveys conducted to verify compliance requirements for fruit harvest and disease freedom in nurseries and budwood facilities

Registration required for producers, production units, nurseries, budwood facilities, harvesters, packing houses and processors
Citrus Health Response Program Framework

- **Growers must register by signing compliance agreements.**
  Components of the compliance agreements include:
  - **Submission of a business plan** is now required when submitting a compliance agreement. The business plan must describe each grower’s plans for decontamination practices, self-survey, and pest management strategies for controlling citrus canker, citrus greening, and the Asian citrus psyllid.
  - **Decontamination is only required** when departing a grove. However, growers may require people to decontaminate prior to entering as an added precaution.
Citrus Health Response Program Framework

Citrus Compliance: Harvesters, Processors, Packers

- **Citrus Harvesters**
  - Harvesters must register by signing and submitting a compliance agreement and business plan. Packets of the new harvester/ handler forms are available on the web.

- **Citrus Processors**
  - Citrus processors must also register by signing a compliance agreement. A business plan is required from each processor indicating plans for decontamination of field personnel and equipment entering groves
  - Trailers that do not come into contact with citrus trees do not have to be decontaminated, but must be free of citrus debris upon unloading at processing facility

- **Citrus Packers**
  - Citrus packers must sign compliance agreements with USDA that contain fruit sampling, inspection, decontamination and packing requirements

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Citrus Health Response Program Framework

Citrus Compliance Agreements

Growers/Caretakers
- Grower/Caretaker Compliance Agreement Example ~ pdf
- Cover Letter for Grower/Caretaker Compliance Agreement ~ pdf
Grower/Caretaker compliance agreements were mailed in July 2007, please contact the helpline if you did not receive a copy.

Harvesters
- Harvester Compliance Agreement ~ pdf the Spanish Version is page 4-6 NEW
- Cover Letter for Harvester Compliance Agreement ~ pdf or Spanish Version NEW
Harvester compliance agreements WILL NOT be mailed.
- Please print the harvester compliance agreement and fax or mail the completed document to:
  FDACS/Division of Plant Industry
  3027 Lake Alfred Road
  Winter Haven, FL 33881
  (863) 298-7777
  FAX: (863) 291-5210

Processors
- Processor Compliance Agreement ~ pdf
- Cover Letter for Processor Compliance Agreement ~ pdf

Florida Department of Agriculture & Consumer Services -- Division of Plant Industry
Citrus Huanglongbing (HLB) & Potato Zebra Chip (ZC) Conference:
Status of Diseases and Research Opportunities, McAllen, Texas November 16-18, 2009
Citrus Health Response Program Framework

Citrus Health Response Program

Citrus Health Response Program Schedules

All schedules and attachments pertain to Citrus Health Response Program Compliance Agreements in force as of 1 August 2001.

Schedule 10: CHRP Information Resources ~ pdf
Schedule 11: Products Approved for Decontamination ~ pdf
Schedule 12: Quarantine Citrus Shipment Log ~ pdf
Schedule 14: USDA/PPQ Limited Permit Stamp or Sticker Authorization Procedure Example ~ pdf
Schedule 15: EU Export Application ~ pdf
Schedule 17: Treatment of Fresh Fruit ~ pdf
Schedule 18: Authorization for Labels, and Bag Inserts and Printing ~ pdf
Schedule 19: Citrus Canker Overview of Quarantine Zones (text & map) ~ pdf
Schedule 20: Citrus Canker Quarantine Maps (by county)
Schedule 20: Citrus Greening Quarantine Maps

Business Plans

Schedule 27:

- Grower/Caretaker Business Plan ~ pdf Also in Word ~
- Harvester/Handler Business Plan ~ pdf Also in Word ~
- Processor Business Plan ~ pdf Also in Word ~ doc

Sample Business Plans:

- Grower/Caretaker/Grove Service - Plan Examples
  - Grove with no incidence of disease ~ pdf
  - Grove with disease present ~ pdf
- Harvester/Handler/Hauler - Plan Example
  - Harvester Plan Example ~ pdf
- Processor - Plan Example
Citrus Health Response Program Framework

Looking forward... What can the public do?

The public plays an important role in protecting Florida’s natural environment and plant life. There are many resources available to assist and educate home gardeners about plant pests and diseases. If you suspect your trees may be infected with HLB, please call the Department’s toll-free helpline or your local county extension office, or visit the Web sites listed below for more information.

If it is determined that your tree is infected with HLB, it is recommended that you destroy the tree before it infects other citrus in the area. Though there is no cure for HLB, spread of the disease can be slowed by the voluntary removal of infected trees.

Some important actions that individuals can take to protect Florida agriculture and our natural environment include:

Purchase only certified plants from registered nurseries

**Be vigilant** - if you see signs of disease or an unusual pest, contact your county extension office or the FDACS/DPI helpline.

**Don’t pack a pest** - when returning home to Florida from a trip, don’t bring plants, fruits, vegetable or illegal animals.

**Ask for advice** - contact your county extension office or visit www.doacs.state.fl.us/pi for tips on caring for your citrus trees or managing citrus diseases.

**Consider planting alternative fruit trees** - for a list of those that will grow well in your area, contact your county extension office or visit www.doacs.state.fl.us/pi
So, we are now more prepared to survey, detect and mitigate our current and any new citrus disease challenges.
Citrus Health Response Program

Working together to produce healthy citrus

Thank You!

CHRP Helpline
800-282-5153
www.fl-dpi.com
Fresh Fruit Shipment Procedures  
Effective October 22, 2009  
Version 2.0

INTERSTATE SHIPMENTS

The interstate movement of fresh citrus from Florida to domestic markets is currently governed by the Code of Federal Regulation, CFR 301.75 Subpart-Citrus Canker. This subpart establishes a citrus canker quarantine throughout the State of Florida, and outlines requirements for fruit shipped from a quarantine area to other US states and territories.

Shipment Now Permitted to All US States and Territories

Citrus fruit from Florida is now permitted to be shipped to all US states and territories, including AZ, CA, HI, LA, TX and American Samoa, Guam, Northern Mariana Islands, Puerto Rico and Virgin Islands of the United States.

Citrus fruit may be shipped interstate from a quarantine area under a Federal Certificate provided the fruit:

- Is packed in a commercial packinghouse whose owner or operator has entered into a compliance agreement with APHIS
- Is treated according to 7 CFR 301.75-11
- Is free of leaves, twigs and other plant parts, except stems that are less than 1 inch long and are attached to the fruit
- Is accompanied by a Federal Certificate.

The previous requirement that fruit be inspected and found free of citrus canker by APHIS has been eliminated for fruit destined to the interstate market. That requirement remains in effect for fruit destined to some foreign markets. In addition, the requirement that fruit originate in a grove inspected and found free of canker remains in effect for shipments to the European Union. Export shipments, including those to the EU, are addressed later in this document.