



# CITRUS RESEARCH & DEVELOPMENT FOUNDATION GROWER RESEARCH REPORT

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## The International Research Conference on Citrus HLB (IRCHLB IV)

The fourth conference focusing on HLB research progress was held in February in Orlando, following the tradition of previous meetings to focus attention on the discovery and delivery of solutions to HLB. First started in 1999 and focused on citrus canker, this series of conferences has occurred every two years, and in 2005, HLB became a topic of focus along with canker. In ensuing conferences, the topic has been specifically focused on HLB. CRDF is proud to have been a major sponsor and planning participant in these conferences, and particularly the grower outreach meetings that follow the conference. This is appropriate, as CRDF has managed funding on behalf of the citrus industry for a significant number of the projects and scientists that were presented at the HLB Conference

\*\*\*Please note the article below on the Grower Day meeting to be held March 12, 2015 at UF, IFAS, CREC, Lake Alfred.

The February 2015 conference spanned a five-day period, with presented papers and keynote overviews being organized around the following topics that address the various components of the HLB disease system, the vector psyllid, the pathogen *Candidatus Liberibacter asiaticus* (CLAs), and the host plant citrus:

- *Cultural Control and Epidemiology*
- *Host-Pathogen Interactions*
- *Pathogen - Infection Consequences*
- *Pathogen-Vector Interactions*
- *Vector*
- *Vector-Host Interactions*

Organized according to these topics, there were over 100 presentations distributed across the three biological elements (vector, host and pathogen), and more importantly, the interactions among each of the intersections as described above. During breaks in the formal program, more than 100 posters were on exhibit throughout the meeting period. These posters were organized and located according to the topics as well, allowing one to wander through sections of the poster arena and view similar topics together. While the formal presentations dominated the meeting time, the more informal poster periods allowed one-on-one and small group discussions around the visual presentation of the poster.

As with any scientific meeting, the HLB Conference is a great opportunity for scientists and engineers with

### Upcoming Board and Committee Meetings

Mar 9th Governance Comm	Telephonic 2:00 pm
Mar 17th Finance & Audit	Lake Alfred 9:30 am
Mar 24th Board of Directors	Lake Alfred 9:30 am

common interests to share ideas, results and plans. The specific focus of this meeting on citrus HLB makes those interactions even more valuable. One of the great benefits of such a meeting is the exchange of ideas and information, and the collaborations that are formed. Of particular interest in this regard is that important teams are forming around the new federal HLB funds, and the HLB conference offered a great opportunity for these teams to meet and advance their plans and proposals. Several side meetings were conducted with cooperative teams working out details and budgets.

Another feature of the 2015 HLB conference was the breadth of research being reported by individuals and groups that are located in areas that are newly infected with HLB or are working in advance of the spread of the disease. In addition to strong participation from Florida and other citrus states (Texas, Arizona, and California), there were representatives from 16 other countries, many that are building programs in response to recent infection by HLB. Notably, Brazil had many delegates who provided important updates on their work to understand and manage HLB in their country. Other South and Central American countries were represented and the audience heard updates on the level of spread of disease and responses in these areas.

To the observer, the information presented and discussed at the HLB Conference ranged from deep technical science that is novel and exploratory to field trials and experiments to better understand and manipulate various components of the disease. Since the meeting has avoided running concurrent sessions, all participants have a chance to attend all of the presentations, allowing everyone to broaden their perspectives beyond their own specialty, and to see the bigger picture of the effort against HLB.

To a grower participating in the conference, the presentations might appear overly technical and short on practical information of interest to growers. By design, the agenda contained the full spectrum of topics that ranged from foundational science to testing of solutions. Since the meeting is primarily held to allow interaction and communication among scientists, this is one of the side effects. However, the organizers recognized the need for a non-technical component to emerge that can provide the relevant updates to growers.

The grower conference also offered the opportunity for a number of related activities and meetings that took advantage of the assembly of scientists from around the country and world. Among these activities was a full-day team meeting of the USDA, NIFA SCRI NuPssyllid project. This team, representing 23 institutions and about 70 individuals, met the day prior to the HLB Conference and discussed project goals progress and plans going forward. The project resulted from a competitive grant application that was awarded to CRDF in 2012, and is now in its third year. The goal of the project is to develop a population of citrus psyllids that are incapable of transmitting CLAs from infected to uninfected trees. Once developed these psyllids would be reared and released in areas supporting wild psyllid populations, where they would breed with wild ACP and integrate the factor responsible for the transmission reduction. In this version of biological control, success would be evident by a gradual reduction in the overall ability of ACP to transmit HLB, lowering the rate of HLB spread to new trees and ultimately increasing disease management accordingly.

Other groups met to discuss project plans and the USDA APHIS organized an open discussion roundtable activity for an afternoon break in the normal presentation agenda for the meeting. These meetings furthered the goals of providing an opportunity for collaboration and open communication.

### Grower Day March 12

**A meeting for growers will be held on Thursday March 12, 2015 from 9:00am to 12:00pm at the UF-IFAS Citrus Research and Education Center, Lake Alfred, FL to present salient points conveyed at the IRCHLB IV conference. Lunch will be served. Please register via email to [clarkb@flicitrusmutual.com](mailto:clarkb@flicitrusmutual.com).**

The Grower Day has been separated from the date of the conference to allow summaries of various topics to be extracted from the wealth of information presented. It has been organized to address issues most important to growers and other industry representatives. The complexity of HLB and the elements that interact to create the disease scenario experienced by Florida growers makes it difficult to extract the practical elements from the larger body of work that is ongoing.

The Grower Day presentations will be built around the following questions:

- What tools are available or emerging to support planting of new trees or groves in Florida?
- What are the tools available for transition of young citrus trees to mature, producing trees (4-7 years)?
- What programs and solutions are emerging and available for minimizing the impacts of HLB on mature, producing trees?
- Are there additional areas of research that will lead to new tools in the short-medium timeframe?
- What are we learning from research outside of Florida that will help in developing and delivering solutions to HLB in Florida?




Development of presentations at Grower Day has been greatly assisted by those submitting presentations and posters to the HLB Conference. Each applicant was required to provide a non-technical summary to be included as a slide in their presentation or a summary panel on their poster. This will facilitate the organization of the grower day topics.

It is not the intent to cover all of the topics and presentations from the HLB conference, but rather focus on findings presented that address the questions above.

With the additional planning and hard work by those who have been asked to present, we believe that this grower day will hit the mark in providing useful information to growers.

Those presenting at Grower Day will be offering an overview of the questions listed above, having focused on a pre-sorted set of HLB Conference presentations that addressed their topic. Thus, the speakers and their teams gathered perspective throughout the conference on a subset of the overall presentations, and have had several weeks to distill their thinking.

CRDF acknowledges the outstanding work of all involved in the planning and execution of this event, and for taking the additional step to improve upon the grower summarization process from previous conferences. We particularly thank the Organizing Committee and Florida Citrus Mutual for their significant efforts to make these meetings a success.

LINK	TITLE	RESEARCHER
	Blocking the vector transmission of Candidatus Liberibacter asiaticus to stop the spread of Huanglongbing in citrus	Killiny
	Plant growth regulator late winter application for preharvest drop control in Valencia orange-Grower trials	Albrigo
	Plant growth regulator late winter application for preharvest drop control in Valencia orange-Comprehensive PGR trials	Albrigo