



# CITRUS RESEARCH & DEVELOPMENT FOUNDATION GROWER RESEARCH REPORT

Volume 5, Issue 13

April 2017

## 5th International HLB Research Conference Draws Large Crowd

Scientists from around the world assembled last month for a multi-day HLB Conference to share research results and projects designed to uncover solutions. More than 475 participants from 24 countries attended, making the meeting another great success.

A large number of presentations reported ongoing work in Florida, the majority which is funded in part by the CRDF, the Conference's primary sponsor.



The three-day formal meeting featured 150 oral presentations in two concurrent sessions with speakers presenting updates on their work on the psyllid vector, bacterial pathogen and the host citrus plant. Additional presentations highlighted interactions between components of the disease system that might provide targets for management tools.

Keynote presenters provided food for thought on broader topics of interest to the group while general sessions focused on the main topics surrounding HLB disease in citrus including genetics and genomics, biology and behavior, epidemiology and impacts of host plant type, and development of symptoms and disease. More countries are experiencing HLB and consequently the program contained many presentations on interventions being developed and evaluated across the globe to manage citrus health and suppress vector psyllid populations. The HLB Conference is designed specifically for technical exchange among scientists and engineers, and thus, can be a bit challenging for non-technical audiences. Despite the depth of technical presentation, growers from Florida, California, Texas and some international citrus industries attended the meeting to receive updates and meet with researchers.

### Upcoming Board & Committee Meetings

Most meetings are held in the Ben Hill Griffin Hall at the UF-IFAS, CREC campus in Lake Alfred, Florida.

04/20/2017	Research Management Comm.	9:30 am
04/24/2017	Finance & Audit Comm.	9:30 am
04/24/2017	Commercial Product Delivery Comm.	1:30 pm
04/25/2017	Board of Directors	9:30 am

Of particular value to researchers attending this meeting were the ample opportunities for informal discussion and research planning. Less formal poster displays of ongoing research served as a backdrop each afternoon for discussion and reacquainting of colleagues. Since HLB research increasingly requires multi-disciplinary team involvement, this meeting provided an outstanding opportunity for stimulating cooperation and exchanging ideas.

Acknowledgement for outstanding planning, registration, and facilitation of the meeting is due Florida Citrus Mutual and the dedicated staff who again provided an outstanding venue, planning and support for the Conference.

## Make Plans to Attend HLB Conference Grower Day

All citrus growers interested in learning about the latest research should plan on attending the IRCHLB Grower Day on April 21, 2017 at the University of Florida, IFAS Citrus Research and Education Center, Lake Alfred. The morning-long program will begin at 9:00 am and be followed by lunch on site. Participation in the meeting and planning for lunch requires that you register your intent to attend by April 17 with [clarkb@flcitrusmutual.com](mailto:clarkb@flcitrusmutual.com). The program, organized by UF, IFAS extension, hosted by Florida Citrus Mutual, and sponsored by CRDF, provides a summary of the main messages from the Research Conference in Orlando. IFAS Extension faculty will present overviews by major topic to provide a synopsis of the presentations at IRCHLB, with particular emphasis on activities that will lead to management tools for HLB. This is a great opportunity for growers.



## IRCHLB Serves as Important Meeting Venue for Various Groups

A number of groups took advantage of the IRCHLB Conference to hold meetings to discuss critical industry issues. Among those who met during the IRCHLB were:

- USDA, APHIS Multi-agency Coordination (MAC) analyzed ongoing projects funded by the MAC Congressional appropriation and to consider additional “shovel-ready” projects for investment of the remainder of the FY 2016-17 uncommitted budget.
- The California Citrus Research Board and CRDF co-sponsored an informal workshop at the IRCHLB, bringing together researchers engaged in conventional as well as biotechnology-assisted breeding for HLB tolerance or resistance. The goal of the event was to foster informal discussion and planning while allowing the foundation folks involved to become more familiar with the breeding efforts across the US. More than 60 people participated in this activity.
- Florida Citrus Mutual Board of Directors Meeting to conduct regular business.
- Many research teams who are currently funded had team meetings to discuss progress and for planning purposes.
- CRDF staff had a number of interactions with counterparts from partner organizations, including Fundecitrus (Sao Paulo Brazil), California Citrus Research Board and the USDA, APHIS, MAC.
- The National Academies of Science held the organizational meeting of the CRDF-sponsored Comprehensive Review of HLB Research Progress and Priorities during the IRCHLB. The panel of experts attended selected presentations at the IRCHLB, and conducted the first steps in the work plan to provide feedback to Florida growers through CRDF regarding opportunities to accelerate research towards solutions.

## Foundation Focused on Delivering Short-Term Solutions to Growers

The need for short-term solutions to HLB has never been greater, and CRDF is committed to continue focus on this important area. While many interventions targeting ACP, root health, nutrition and irrigation have been studied across a range of variables, we continue to look for potential tools that can be added to current management systems. Following the recent CRDF portfolio review which is conducted each year, the Board has requested a number of project areas for further consideration. The Commercial Product Delivery Committee of CRDF is the appropriate vehicle for topics that are close to field readiness. Among the general areas that are being pursued include:

- Continuing work to evaluate the performance of bactericides in use under Section 18 emergency labelling. Further field trials are being interpreted, and grower trials will continue into this 2nd season of field use of the materials.
- Methods to improve absorption of applied bactericides through alternative adjuvants, application methods, and through following material movement within trees following treatment.
- Integrating thermal treatment with bactericide application to improve the absorption of bactericides.
- Field trials with combinations of ACP active materials in combination with repellents.
- Capturing grower experience with modified production practices in an effort to share current thinking on maintenance of tree health in the presence of HLB.

## USDA Announces Pre-Application Period for Farm Bill Funding

The USDA announced in April that they are accepting pre-applications for the 2017-18 NIFA program marking the 4th cycle in the 5-year HLB research funding commitment of the 2014 Farm Bill. Pre-applications should address one or more of the priorities recommended by the grower advisory group. They are:

1. Development of therapies to kill or suppress *Candidatus Liberibacter asiaticus* (CLAs) within trees or prevent CLAs infection of healthy trees.
2. Development of tolerance or resistance to HLB in cultivars commercially important in all citrus production regions with a focus on delivery of new cultivars (scion and rootstock) using all available plant improvement strategies.
3. Systems for delivering new or currently available therapies into the phloem of citrus trees.
4. Development of techniques or substrates that permit CLAs to be produced in artificial culture.
5. Development of methodologies that allow for the early detection of CLAs in non-symptomatic citrus plants and in *Diphorina citri* (Asian citrus psyllid, ACP), the insect vector of the pathogen.
6. Development of pre- and post-harvest tools to maximize citrus fruit quality for use as fresh fruit or processed products.

More details can be found at <https://nifa.usda.gov/funding-opportunity/citrus-disease-research-and-extension-cdre>