



CITRUS RESEARCH & DEVELOPMENT FOUNDATION GROWER RESEARCH REPORT

Volume 5, Issue 7

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CRDF Advances Strategic Plan

The Citrus Research and Development Foundation (CRDF) Board of Directors has taken a key step in moving its strategic plan forward by approving four initiatives designed to sharpen the organization's focus in planning, budget allocation, organization and stakeholder engagement for the next six years.

The initiatives and a short description are as follows:

1. Develop top priority topics for short-term solutions and present them at June and July board meeting in order to devise follow-up actions.
2. Define medium and long term technologies and possible partners
3. Create a citrus playbook for growers in the era of HLB that describes practices and treatments most helpful in maintaining tree health. Unveil at 2016 Citrus Expo. Partner with UF-IFAS to author three main sections:
 - What can you do now?
 - Practices or technologies that have been shown not to contribute to HLB management
 - Future technologies- what is on the horizon
4. Develop "products" RFP for topical white papers designed to ultimately attract partners. CRDF can serve as a clearing house for valuable research that can contribute to HLB solutions and which can be shared with other interested organizations.

Researchers Working on the HLB Problem are Second to None

By Dr. Harold Browning

There are a range of emotions swirling around the Florida citrus industry on a daily, sometimes hourly basis. From optimism to pessimism to resiliency to complacency. Probably the most prominent sentiment is frustration. Why don't we have an HLB silver bullet yet? Is anything we do going to work long term? Believe me, I feel it.

But from the beginning, we knew this was not going to be an easy puzzle to solve. We are literally dealing with the Gordian knot of citrus diseases.

The good news is that we have an impressive stable of citrus research minds from across the globe working to untie

Upcoming Board & Committee Meetings

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

6/06/16	Commercial Product Delivery Committee	9:30 am
6/08/16	Finance and Audit Committee	9:30 am
6/08/16	Governance Committee	9:30 am
6/15/16	Box Tax Advisory Council and Board of Directors in Conjunction with FCIAC, Hyatt Coconut Point, Bonita Springs - Calusa BC	9:30 am

the knot. The brainpower is extraordinary. Of course we all know the talented researchers at the University of Florida and USDA-ARS who are pouring an immense amount of energy into this problem. We've worked with most of them for years and understand how dedicated they are to the industry.

But outside our tight Florida circle is a roster of scientists that have long and distinguished resumes. I venture to say the research push is an unprecedented marshalling of scientific resources on behalf of a specialty crop.

For example, Dr. George Bruening continues to provide a wide angle look at the disease and is in constant contact with the public and private sector organizations who are part of our fight. Dr. Bruening is a National Academy Fellow, a plant pathologist/molecular biologist and an Emeritus professor at the University of California, Davis. Dr. Bruening led the National Research Council Team of the National Academy of Sciences Committee on the Strategic Planning for the Florida Citrus Industry: Addressing Citrus Greening Disease that developed a research plan for the Florida industry and he also chaired the Scientific Advisory Board of CRDF to provide peer review of Citrus Advanced Technology Program research proposals.

And then there is Dr. Brian Federici, Insect Pathologist and Molecular Biologist, Emeritus, University of California, Riverside. Dr. Federici serves as a science advisor to the CRDF-led nuPsyllid grant project. This project, funded by USDA, NIFA, SCRI is a 5 year, \$9 million effort of approximately 45 scientists from 22 institutions to develop a psyllid insect population that is unable to host and transmit CLAs, the causal agent of HLB. The result of this interdisciplinary effort will be deployed in citrus as

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a biological control.

Dr. Federici brings unique expertise to this project, having been involved in numerous similar projects to attack mosquitos that transmit human diseases. His current activities include participation in US efforts to combat Zika virus and its mosquito vectors.

These are just two names out of many.

There is no doubt over the past decade, scientists have made inroads toward solutions to HLB. There is a lot of promising research out there. Science is going to get us there and growers can ease their frustration just a bit by knowing the best minds in the business are engaged.

PFD on Foundation's Agenda

Postbloom Fruit Drop, or PFD, has resurfaced become a serious issue to growers throughout Florida, stimulated by protracted citrus bloom periods and weather conditions favorable for the disease. The CRDF is supporting research to uncover the best way to manage the disease, building on work done in Florida during earlier disease incidence years.

Dr. Megan Dewdney of UF-IFAS is the PI of a two-year, \$269,000 project to understand several PFD questions, including:

- the efficacy and economics of aerial and ground applications of several fungicides
- evaluating new products such as Luna Sensation to determine if systemic activity can protect flowers
- Can extended flowering period of trees affected by HLB can be narrowed to eliminate the offseason bloom that contributes to the PFD inoculum increase in groves.

In addition to Dr. Dewdney's project, the CRDF discussions have been held to consider if additional steps could be taken during bloom and at other times of year to reduce the risk of PFD losses.

Private-Public Bactericide Partnership with Bayer Takes Shape

Bayer CropScience and the CRDF are exploring a partnership to screen and identify new CLas bactericides and move any viable candidate(s) forward toward potential commercialization.

The next step in the process will be face-to-face discussions between Bayer, the CRDF Board and other interested parties sometime in the near future. A proposal framework was presented by Bayer CropScience at a May 17 CRDF Commercial Product Delivery Committee meeting.

The goal of the partnership is clearly to focus on large-scale, high-throughput screening to identify CLas bactericides and commercialize the best candidates.

Discussion about the partnership at CRDF meetings raised many questions and issues, both technical and logistical. The early stages of this project would identify from libraries of candidates the most likely to provide solutions and to be moved forward for development.

2016 FCIAC Educational Session

Hyatt Regency Coconut Point, Bonita Springs

Thursday, June 16th

8:30 am - 8:40 am

Welcome and Perspective

Mike Sparks

8:40 am - 9:30 am

Bactericide Update

Harold Browning & various researchers

9:30 am - 9:55 am

An Update on Transgenic Citrus Field Trials

Ricke Kress, Southern Gardens

15 minute break

10:10 am - 10:15 am

Welcome back

Harold Browning

10:15 am - 11:05 am

What is Working & What Isn't in the Era of HLB

Grower Panel: Bill Barber, Lykes Brothers; Glenn Beck, Beck Brothers Citrus; Larry Davis, Larry Davis Inc.; Daniel Scott, Scott Citrus; Danny Sutton, Alico Inc.

11:05 am - 11:35 am

Open Forum w/ Q&A from audience

Dr. Harold Browning, moderator

11:35 am - 11:50 am

Overview of Planting Incentives;

Let's Re-energize the Industry

Mike Sparks