



REPORT

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CRDF Commercial Product Development Committee Hosts Regulatory Training Workshop

CRDF, through its Commercial Product Development Committee, organized a Regulatory Training Workshop for March 22 that brought key experts from the US Environmental Protection Agency (EPA) and USDA, APHIS to help Florida scientists and industry members understand the rules, processes, and timetables involved in bringing new solutions to field use. This was the 3rd step in an ongoing process to establish communication with the agencies with the following goals:

- Communicate to the agencies the critical nature of HLB to encourage timely response
- Anticipate the agencies and processes that might be involved for a given HLB solution
- Identify potential data requirements to satisfy regulatory questions about safety, persistence, and other characteristics of the tool in question
- Educate growers, researchers, and others about the likely timetables, costs and pathways to deployment of the solutions

More than 50 members of the research community and industry attended the day-long workshop, where they heard presentations by regulatory experts from EPA and USDA, APHIS. Following a general discussion, the workshop focused on more detailed overview of three examples of HLB solutions and how each might be handled. The three cases represented some of more likely intermediate to long term solutions, as follows:

- Planting of a tree that contained genetic material conferring tolerance or resistance to HLB
- Deployment of a product that would kill the pathogen when applied to the grove (antibiotic)
- Use of RNA interference to affect the life history or survival of the vector psyllid and thus reduce disease spread.

Each agency expert provided an overview of how the technology might be characterized and thus regulated. In examples where both agencies had responsibility, the

UPCOMING MEETINGS

APRIL, 2012

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| 13 | Subcommittee - Tabled Proposal | TBD | TBD |
| 17 | Finance & Audit Committee | CREC - Rm 24 | 10:30 am |
| 18 | Commercial Product Development Committee | CREC - BHG Rm 3 | 9:00 am |
| 24 | Board of Directors | CREC - BHG Rm 3 | 9:30 am |

speakers discussed how they work together to address the concerns of each agency. This introduction gave attendees an idea of what to expect for each type of tool as it emerges from testing and moves towards use. All of the regulatory agency information and presentations made during the workshop are available at <http://bit.ly/RegWrkshpPrsntns>.

While it is clear that time and expense will need to be committed to make new tools available to the industry, the clock has now started in incorporating regulatory considerations into the ongoing CRDF-managed development and testing research projects. CRDF and its Commercial Product Development Committee will continue communication with the agencies in preparation for the first opportunities to move solutions forward. We acknowledge the efforts and participation by

Why should we be concerned with learning about Regulatory considerations now?

Two years ago, the National Research Council (NRC) study “Strategic planning for the Florida Citrus Industry; Addressing Citrus Greening Disease” identified 23 specific organizational, informational, and near-, intermediate- and long-term Research and Technology Recommendations. Today all of these recommendations have been initiated and many objectives are substantially complete. An annual investment of approximately \$15mm per year for the past three years has created a pipeline of product concepts that must be further refined for regulatory approval and commercial use.

Meanwhile, there remains great concern that the research portfolio will not deliver solutions rapidly enough to forestall production loss in the near and midterm. It

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is critical to maintain production in infected groves and to provide confidence that investments in new plantings will yield economic returns. Growers are doing what they can now with improved area-wide psyllid control and optimal nutrition to support production and slow spread of disease in infected groves but this is only feasible in some areas and only because fruit prices are relatively strong. Therefore, our priorities are to find new active “protectants” to control disease and to deliver those solutions as economically and efficiently as possible in both infected groves and new plantings.

An important element in delivering new solutions to HLB and other diseases will involve the regulatory issues surrounding use of the tools. Whether the new tool is a conventional pesticide, a disease-resistant tree, or one of many other possible solutions, these tools may be subject to oversight by federal (and state) agencies, whose role is to assure that new disease management tools are safe to users, consumers and the environment. While many individuals within the Florida research and citrus production sectors have awareness of aspects of

EPA, FDA and USDA oversight of emerging technologies and their regulation/deregulation pathways, we anticipate that a deeper knowledge is essential to make appropriate decisions and investments as our research portfolio advances the primary goals to develop and deploy technologies to combat citrus HLB and citrus canker. Acting now will ultimately shorten the time to delivery of solutions.

Larry Black Joins CRDF Board of Directors

At its February Board Meeting, Florida Citrus Mutual appointed Mr. Larry Black, a fifth generation citrus grower from Lakeland as a Board member of CRDF, replacing Marty McKenna, who recently stepped off of the board. Larry is General Manager of Peace River Packing Company. He manages over 3200 acres of citrus and ranch property for the family business. Peace River Packing Company, established in 1928, is a fully integrated citrus services company, active in grove care, harvesting, fresh fruit packing, and processed fruit sales. Larry will provide broad perspective on the citrus industry as he joins the CRDF Board.

ANNUAL AND FINAL REPORTS

Following are the annual and final reports on CRDF-funded research projects which have been posted online since our last issue. The full report can be accessed from the ‘link’ button. These, and interim progress reports on all projects as well as projects funded by the California Research Board and Texas Citrus Producers Board can be found online at www.citrusrdf.org>GROWERS>RESEARCH UPDATES.

| LINK | TITLE | RESEARCHER | HEADLINE |
|------|---|----------------|--|
| | Copper loaded silica nanogel technology for long term prevention of citrus canker disease | Santra | Nanotechnology enabled copper biocide for canker prevention |
| | A Chemical Genomics Approach to Identify Targets for Control of Asian Citrus Psyllid and HLB | Roose | A Tomato/Psyllid Yellows System for Chemical Screens |
| | Development of transformation systems for mature tissue of Florida commercial varieties and strategies to improve tree management | Dawson/ Zapata | Mature transformation system functional and plants obtained |
| | Identification of small molecules that disrupt pathogenicity determinants of <i>Liberibacter asiaticus</i> | Gonzalez | cloning of the protein targets, evaluation of protein expression |