## The Scientists Leading the Projects

By Harold Browning

hen we communicate about ongoing and planned research projects that are addressing citrus industry disease threats, we often speak about priorities, projects, funding levels and whether the project is addressing short-, intermediate- or long-term solutions. We also categorize whether the work is focused on HLB via the vector, Asian citrus psyllid (ACP), the pathogen Candidatus Liberibacter asiaticus (CLas), or the host plant, citrus. There generally is little mention of the scientists who are dedicating their time to these efforts, and the commitment they are making to respond to the industry challenges.

Prior to emergence of HLB in Florida, strong support for citrus research and education was provided by University of Florida at various locations around the state in addition to the main campus in Gainesville. Similarly, researchers at the USDA laboratories at Fort Pierce and in Winter Haven (now also at Fort Pierce) provided support for production and post-production research. The Florida Department of Citrus (FDOC) Research Division also provided support to post-production challenges and harvesting.

The commitment from UF, USDA, and FDOC continues. A recent review of ongoing and planned research projects sponsored by the Citrus Research and Development Foundation (CRDF) upon rigorous outside peer and grower review indicates that approximately 70 percent of the 114 current projects are led by University of Florida scientists. Another 20 percent of projects are led by USDA, ARS scientists, most of whom are located in Florida. For obvious reasons, laboratory, greenhouse and field research that directly involves ACP, CLas, Citrus canker bacteria, and more recently citrus black spot, is restricted to Florida or to locations that have laboratories approved for handling these pests and pathogens. Thus, it is no surprise that the majority of effort is focused in Florida.

In addition, the UF and USDA research programs have significant experience with citrus, and are engaged internationally with colleagues working in citrus science. Their laboratories and locations are suited for close interaction with the Florida citrus industry, and the UF extension mission dictates that extension scientists work closely to bridge the gap between research and delivery to growers and other recipients. Often overlooked, each of the agencies is committing significant institutional and other extramural funding to support the citrus priorities, and this magnifies the reach of projects funded by the industry through CRDF.

The value added by the industry reaching out nationally and internationally to seek scientists to participate in HLB and canker research is immense. They, too, are dedicated to finding solutions, and represent excellent scientists in universities, foundations and international research institutions.

This column is too short, and the list too long, to individually acknowledge the hundreds of scientists, staff, and students who are working on behalf of the Florida citrus industry to address the challenges that are the greatest threat to the industry. However, it is important for us all to realize that researchers are faced with tremendous technical and logistical challenges as they seek solutions. These are real people who have much in common with producers and others in industry who are highly trained specialists working long days primarily for the satisfaction of having an impact.

The importance of the diseases to the well-being of Florida citrus adds a human dimension of urgency that is difficult to reconcile with the need for diligent and careful pursuit of solutions, and their testing and approval under field conditions. At CRDF, we take some pride in helping to make the connection between research and applications, between scientists and growers more direct and more effective.

Harold Browning is Chief Operations Officer of CRDF. The foundation is charged with funding citrus research and getting the results of that research to use in the grove.

