## What is the current status of HLB in Florida citrus?



By Harold Browning

as Florida citrus harvest moves into full swing, there are many questions about how the industry is doing in its battle with HLB. These questions eventually point to how much we still don't know about this disease and its ability to affect citrus. Despite the continued, aggressive approach to research across the breadth of possibilities for finding solutions in the short, intermediate, and long term, the questions remain. These questions arise from the efforts of growers and scientists alike who are evaluating field, greenhouse and laboratory trials, and interpreting the data and the general observations that emerge.

There are signs of progress in many areas. Some positive signs are coming from success in new plantings, particularly from trials where high densities of trees are combined with more intensive irrigation/fertilization management. This is combined with incremental gains in managing Asian citrus psyllid (ACP) on new plantings, as well as continued benefit from growers participating in Citrus Health Management Areas. Recent reports at grower meetings and published stories in various outlets point to progress in managing the disease in a variety of ways, using a variety of approaches.

With regard to mature groves, where infection rates continue to grow, the October USDA crop estimate indicates a strong crop load for the year. Factors like summer rains and alternate bearing may help explain the increase in crop size over last year, but nonetheless, it is encouraging news. Included in the estimate for a strong crop season is the possibility that perhaps HLB is not yet fully impacting the industry.

Vital to understanding management of HLB are the combined efforts of researchers and growers to collect observations and data from field trials. Ultimately, all tools for managing citrus in the presence of HLB must be field-tested, and we are learning in the most important laboratory — the grove. Observations in this complicated environment sometimes support our expectations for cause and effect, but in other cases, the results of the trials are unexpected and baffling, causing us to question our original hypotheses. This is the basis for experimental research.

Amidst this ongoing evaluation of strategies, new ideas are emerging. They range from characteristics of irrigation water and their effects on HLB expression, to the implications of HLB infection on onset of other tree stresses, like blight, Phytophthora and root weevils.

Looking at the citrus industry and its fight with HLB, many concerns and tough questions remain:

- Are we tangibly reversing HLB symptom development and disease?
- Are there signs that HLB continues to increase its impact on production? Is the fruit drop being observed this season associated with HLB?
- Is ACP control adequate to protect new plantings from HLB until they reach productive age?
- Will trees survive and produce marketable fruit until resistant trees are available?

These and many more questions remain in the forefront as we begin the next cycle of research projects to support, and as we advance research results to delivery through regulatory and commercialization routes. All of the above elements are, in fact, the drivers for research that is being supported by CRDF, the growers and the research institutions. These questions are central to the projects under way, and those that will be evaluated this winter for funding support.

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

