

# New HLB-Tolerant Rootstocks Give Growers Hope

*By Harold Browning*



**I**t's no secret that the Florida citrus industry needs to put more trees in the ground to sustain itself.

Some experts say we have to plant 20 million trees over the next five years in order to support existing infrastructure. That's a daunting figure considering Florida's current citrus tree population is 67 million.

The good news is the investment that growers, and the state and federal governments, have made over the past decade in developing HLB-tolerant rootstocks is starting to pay dividends. The new rootstocks, which are beginning to show up across the citrus belt, will form the foundation of the replanting effort.

About 100 people attended a recent Citrus Research and Development Foundation (CRDF)-sponsored Rootstock Field Day at an A. Duda & Sons site outside of Felda.

Attendees observed seven different rootstocks in the trial: UFR 2, UFR 3, UFR 4, UFR 16, US 942, US 812 and Swingle. The scion is Valencia, and the trees were planted in March 2015. Those attending were very impressed with the health of the trees, which maintained vigorous root systems and canopies despite the presence of HLB. Most of the growers are already replanting, and the field day offered hope.

Development of several of the rootstocks was funded through the CRDF. In fact, more than one third of the CRDF total portfolio of research and delivery projects is devoted to tolerant or resistant rootstocks and scions. The CRDF board of directors has clearly made it a priority for the near and longer term.

Florida is privileged to have two strong rootstock breeding programs at the University of Florida/Institute of Food and Agricultural Sciences and the U.S. Department of Agriculture's Agricultural Research Service (Fort Pierce), so developing tolerance and resistance is a well-established process for the veteran scientists. The citrus breeders have created a wide range of rootstock and scion traits over the years, including cold hardiness, salinity tolerance, soil adaptability and Phytophthora and nematode tolerance/resistance. We are close to adding HLB tolerance to the list.

The development of increasingly tolerant rootstocks will complement the other tools that are now available, forming an effective production toolbox for growers. Thermal therapies and pending bactericides will only strengthen growers' ability to prolong the health of infected trees. Ultimately, the goal is to keep *CLAs* titers at levels below those which cause the chronic symptoms and decline associated with HLB. The idea is to make the economics work for growers; even though production costs are high, healthy trees grown on new rootstocks while utilizing the latest production techniques will provide a return on their investment.

Couple the aforementioned tools with a host of government and private-sector programs designed to provide growers with an incentive to plant more citrus, and I am optimistic our production will rebound in the next decade even without a silver-bullet cure. Showing our trademark resiliency, scientists, growers and the rest of the industry will adapt and learn to live with the disease.

Please go to [www.citrusrdf.org](http://www.citrusrdf.org) for more information on the CRDF and the projects it funds.

*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.*



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