

Using the Tools Available for Management of Citrus in an Era of HLB

By Harold Browning



The Annual Grower Meeting in Bonita Springs hosted by Florida Citrus Mutual provided an opportunity to review many of the tools available to respond to HLB, and to preview some of the likely next steps in the fight against this disease. During the educational seminar and all around the venue, discussions focused on implementing all of the available tools in an effort to minimize the impact of the disease. The overview of results in the Citrus Health Management Areas (CHMAs) presented during the educational session highlighted how CHMA-wide coordinated implementation of selected pesticidal modes of action and timing of application during critical times of the season can lead to overall reduced psyllid numbers. This is evidenced both by the Citrus Health Response Plan (CHRP) Asian citrus psyllid counts and ACP scouting conducted by growers, and the comparison of ACP incidence in CHMAs with broad participation versus those with less participation was striking. Managing HLB resets, new plantings and existing groves is made more difficult in CHMAs where ACP counts are high.

During the educational session, Tom Kirschner, production manager for a series of cooperative plantings in Southwest Florida, presented an overview of three properties he manages, including specifics of the HLB history, production practices, and utilization of tree removal, resets, and other tools to manage the groves. He also detailed ACP control protocols, and then presented costs and production figures over multi-year periods for each of the properties, indicating the numbers of trees infected, numbers of trees removed and reset, and other measures of disease impact.

His synopsis of the properties illustrated three different situations with varying HLB history, pressure from neighboring groves, and levels of HLB to manage. Evident was the fact that each property was being managed differently, in accordance with the situations present. Among the take-home messages was that tree removal and replacement remains a viable consideration under some scenarios, and not in others. Fundamental to management of HLB on all properties was aggressive ACP control and good cultural practices, including nutrition and weed control. Kirschner made the point that managing resets is confounded if weed control is not maintained, as soil-applied insecticides and other inputs cannot be fully utilized by the trees if applied over weed cover.

Other portions of the program highlighted progress toward other near-term solutions to HLB that are being investigated and for which the CRDF Commercial Product Delivery Committee has ongoing project oversight. Included in these topics was evaluation of antimicrobial materials that may provide therapy against HLB bacteria in infected trees. Laboratory, greenhouse and field experiments are under way or planned to address performance of the candidate materials, methods to introduce useful antimicrobials into citrus trees, and how use of antimicrobials might be integrated with other therapies, such as thermal treatment.

An overview of candidate rootstocks that have been observed to show potential HLB tolerance in field trials is encouraging plans to plant these candidate rootstocks under commercial-scale conditions to further assess their value.

Collectively, discussion around this meeting and the formal presentations provided a sense that tools currently available to respond to HLB need to be fully used, analyzing each situation and incorporating the appropriate elements. Those who take an aggressive approach are best positioned to incorporate new tools into HLB management as they emerge from the research.

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.

