Getting solutions to growers — research that enables CHMA

By Harold Browning

In looking at where we are today in relation to the discovery of HLB in Florida six years ago, there are a number of perspectives. Among them is that production costs have increased. Another less visible view is of the progress made daily that is finding its way into grower practices. I'll use the example of the recent development and acceptance of CHMAs, or Citrus Health Management Areas, to illustrate the point.

Prior to finding HLB in Florida, we had an awareness of asian citrus psyllid (ACP) and damage to young trees, especially during periods of extended flushing. We had materials available to treat psyllids when occasionally it appeared warranted, and we also had released biological control agents.

Today we have a grower-led, area-wide approach to minimize psyllid populations, incorporating tools that were not part of previous practices. Regional cooperation among growers leads to setting the best time for treatment, and to discussing what materials should be used. Agreeing in principle to meet a collective goal of treating as many acres as possible within the CHMA during a particular window of time, growers have adopted a management approach that has proven to be far superior to each grower acting (or choosing not to act) on his or her own. Florida growers should be congratulated for their wisdom in adopting this strategy. This addresses the number-one research priority of the NRC study.

How was this possible? What was necessary for the establishment of 34 CHMAs within a year, and the emergence of confidence in this approach? Clearly, it took grower willingness to take a lead in developing CHMAs, with important help from UF, IFAS extension, and participation of FDACS and USDA in psyllid monitoring. But let's look closer. Where did the tools to implement CHMAs come from?

Since HLB detection in Florida, a significant commitment in grower dollars has been targeted toward slowing the transmission of HLB, primarily through psyllid management. Research funded by CRDF, along with institutional and other investments, has encouraged capable scientists to work together. This has led to a psyllid management system that is available to use via CHMAs. A sample of important research results:

- Greater understanding of psyllid biology, seasonality, and reproductive cycle
- "User-friendly" and cost-effective psyllid population monitoring tools
- Ability to monitor the fraction of adult psyllids which carry the HLB pathogen
- Describing the movement of psyllids from grove to grove and tree to tree
- Awareness of periods of the year that are most important in disease transmission
- Defining winter "dormant" spray strategies to reduce spring psyllid populations
- Detailed evaluation of a growing list of psyllid suppression materials (old and new products)
- Evaluation of attractants and repellents for use in monitoring or suppression
- Refining pesticide use labels for low volume and aerial applications
- Characterizing "best use" of low volume and aerial application for coverage and efficacy
- Monitoring for and developing prevention strategies for pesticide resistance

Looking at this list, it appears that a considerable amount of new information and new tools are available. Together, these research results make the establishment of CHMAs and regional suppression of psyllids possible. In this view, your foresight in investing grower dollars has led to significant improvement in managing the disease vector, as evidenced by your actions. And this represents only the immediate applications of the psyllid 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.

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Column sponsored by the Citrus Research and Development Foundation