

Pushing Forward



By Rick Dantzler, CRDF chief operating officer

It's the start of a new year, a time of hope and optimism. I'm convinced this year is going to be better than last year.

Why do I say this when the U.S. Department of Agriculture has predicted a lower crop? Because new therapies that provide short-term assistance to growers are right around the corner.

A new peptide product will most likely be on the market in late spring. Several years of data on more than 40 field trials show a 20% increase in yield, 39% less drop and a positive result for 82 to 87% of all growers using the product. Section 3 approval for the product is pending before the Environmental Protection Agency. The Citrus Research and Development Foundation (CRDF) is doing all it can to push for a decision in time for the spring flush.

New University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) research on gibberellic acid is showing better grower returns when used as researchers are advocating. CRDF funded the early studies which laid the groundwork for the most recent work.

CRDF's Brandon Page and UF/IFAS's Christopher Vincent are experimenting with a new injection device that is quick and simple. They are able to make three injections on a tree in less than 10 seconds. The trick now is to determine the right product to inject and confirm that it gets into the phloem, where *Candidatus Liberibacter asiaticus* (CLAs) lives.

Researchers have now proven that citrus tristeza virus (CTV) can carry CLAs antimicrobial products and other agents (like peptides) directly to the phloem to kill or diminish CLAs. Southern Gardens owns the technology. Approvals for commercialization are close. CRDF is analyzing how it can assist. Once carried into the tree by CTV, products such as peptides are expected to provide seven to 10 years of labor-free therapy before they run out of gas. New peptides could then be inserted to provide longer relief.

There are other exciting new therapies in the offing. My goal is to get HLB behind us once and for all, and that will likely involve an HLB tolerant or even resistant new tree. It would be better for the tree to be non-genetically modified, and that is a definite possibility with the work the breeders CRDF helps to fund are doing. However, it is prudent to be working on genetically modified trees concurrently. I am aware of exciting new successes in the area of gene editing.

Zonghlin Mou, a brilliant UF/IFAS scientist, in conjunction with others in his lab, have created genetically modified trees which are conveying high tolerance of HLB. These trees are in the third generation of successive buds. The next step is to get these trees into the field to see how they produce. Again, CRDF has funded much of this work.

Yes, there are reasons to be hopeful, but I am not naive. While I believe these and other therapies are going to work, time is not on our side. CRDF is going to push researchers, regulators and anyone who can help. That is my goal for the new year.



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