

Has the Time Come for Tree Injection?



By Rick Dantzer, CRDF chief operating officer

I recently ran across this quote from a 2016 Citrus Industry article from Nian Wang, one of the great University of Florida scientists that the Citrus Research and Development Foundation (CRDF) funds: “Using trunk injection technology, you can probably treat the HLB-diseased trees one time per year and have good control.”

This caused me to think back to something one of my industry friends said to me about whether injecting would work better than spraying. “Rick, it’s the difference between smearing medicine onto your skin or injecting it into your arm,” said my friend, who supports the idea of injecting bactericides into trees to control HLB.

As I thought about the analogy, I became more enthused about the idea of trunk injection for any number of things. Peptides, zinc, elements and nutritional supplements come to mind in addition to bactericides.

Peptides, especially, are a hot topic right now, and some are very expensive. Injection reduces the amount and cost of the peptide, but inevitably the issue of the affordability of the injection process itself comes up. I’ve often heard that if you must touch the tree, you can’t afford to do it. Nevertheless, I’m convinced this is a mechanical engineering problem that can be overcome.

In fact, CRDF has established a relationship with a company in the Midwest that has two devices we are checking out. CRDF’s Brandon Page has developed a trusting relationship with the leaders of this company, and they recently sent him one of each of the devices along with 44 shells loaded with oxytetracycline. I’m interested in learning how fast Brandon can move from tree to tree, injecting as he goes. My guess is that it is going to be fast and easy.

And the fact that it is oxytetracycline? The fruit from the trees will need to be destroyed, of course, but it will be interesting to see how the trees do. I toured two of Wang’s sites a while back and saw a visible, positive difference in tree appearance with certain dosages. He has published extensive literature on residues. Spoiler alert: The residue levels of streptomycin were below required thresholds in the United States but not for Europe. Residues of oxytetracycline were above the thresholds, even in the United States.

Is injection of bactericides, peptides, zinc, etc., good public policy? I’ll leave that to those who govern and regulate the industry. Regardless of what happens with that discussion, the study of tree injection should continue. Growers have told me anecdotally they have figured out how to inject enough trees with certain devices to make it work — if only researchers could give them the right product to inject.

So, the research track should pursue two paths: 1) the development of devices that are affordable to use, and 2) finding the right things to inject that will knock the heck out of HLB.

