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# Speeding the search for an HLB solution

**M**y hope is that your new citrus breeding team scientist will be a new Bill Castle on warp speed. That is, John Chater will accelerate the search for citrus varieties that hold up against HLB.

He's got tens of thousands of places to search. Fred Gmitter and Jude Grosser have been busy breeders. Since Castle retired, they've continued creating candidate cultivars, resulting in a huge inventory of potential solutions waiting for a thorough evaluation of how well they'll perform in commercial groves.

Chater started playing catchup on Jan. 10. The new member of our citrus breeding team at the Citrus Research and Education Center (CREC) in Lake Alfred will have access to tools Castle didn't have. Drones scan acres in just minutes. Massive computing power sifts through imagery. Advances in various omics connect what's happening at a molecular level to a trait such as HLB tolerance.

## FUELING THE WORK

Chater showed up with leads on day one on where to search for funding to support his search for the right tree. As of this writing, he was working on transferring grant money from his last job in California to his lab at the CREC. And he's already submitted millions of dollars in other grant proposals.

The funding is important, Chater says, because when you agree to host a field trial on your acreage, you shouldn't have to pay all the costs. He sees funding not just as fuel for his research but a way to reduce your risk



Chater

and expense in becoming his partner in innovation.

## NO STONE UNTURNED

Chater speaks with reverence for Castle and regularly consults with him to tap into the Florida Citrus Hall of Famer's decades of accumulated wisdom. At the same time, Chater will expand his search far beyond CREC to investigate varieties from the U.S. Department of Agriculture, California and even Japan.

In my first year and a half leading the scientific response to HLB, growers repeatedly asked me to fill the Castle vacancy. It made me wonder, do we have an HLB-resistant variety already in the vastness of our citrus germplasm collection, waiting to be validated?

I wanted someone to start looking — hard, full-time, with the tools to scan thousands of candidates in that collection and with the cooperation of producers testing the most promising potential cultivars in the groves to find the winners.

Chater calls his job the hunt for the blue lobster, a one-in-2-million occurrence. His citrus search is analogous in that he needs to spot a rare genetic oddity that makes an individual stand out from the rest of its species — the tree that thrives while hundreds of thousands of others show symptoms of disease.

## TEAM EFFORT

Chater is so eager to meet you that he came to our CREC Open House and Field Day in November, flying out from California months before he was to start work for us and for you.

Please open your gates for Chater. You can reach him at [jchater@ufl.edu](mailto:jchater@ufl.edu). Consider hosting a trial if you haven't already or expanding your experimental acreage if you're already collaborating with us.

As soon as I arrived in Florida in 2020, I reaffirmed HLB as the highest research priority for the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS). We'll continue to search for ways to manage HLB so that you can stay in business.

With Chater, we're going to accelerate finding a genetic solution to HLB that very likely already exists in the Gmitter-Grosser collection. That's going to take a lot of lab work, field trials and propagation. It's more than one scientist can do, especially when you're trying to keep up with Gmitter and Grosser. Chater calls them the best and most important citrus breeders in the world.

He'll need a team to close the gap. He'll get biological scientists and graduate students from funding agencies and from us. He'll need acreage and observations from you. Please help us speed the search. 🍊

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