UF/IFAS CITRUS STATE

By J. Scott Angle,
jangle@ufl.edu
@IFAS_VP

Research renders reasons to replant

Growing up in Polk County, Emily Worbington saw the groves disappearing. She passed more and more rooftops as she drove around Auburndale.

In nearby Eagle Lake, Joe Volpe watched trees vanish, too. In fact, he tore out trees himself in his family's century-old grove. "It broke my heart," he says.

PERSONAL PURSUITS

Worbington and Volpe's research as graduate students is informed by the suffering of friends and neighbors, by childhood memories and by what they want Polk County to become.

Saving citrus is personal to them. They are developing science that gives people they know reasons to replant. And they're doing it at the local university they grew up around.

On her drives as a teenager, Worbington saw the signs for the University of Florida Institute of Food and Agricultural Sciences Citrus Research and Education Center (UF/IFAS CREC) in Lake Alfred. And when she finished her biology degree, her mother suggested she go there to apply for a job.

She spent the next year on a team that flew drones over 200,000 trees to evaluate citrus cultivar performance. It earned her a spot in a master's degree program investigating the impact of rootstock selection and oxytetracycline trunk injection on juice quality in sweet oranges.

Volpe's grandfather has replanted the family citrus farm with avocados. Volpe saw the same UF/IFAS CREC signs. After a few harvests and managing the transition from citrus to avocados, he decided to seek a doctoral degree in horticulture and to do it where he could still manage the family farm.

Left to right: John Chater with his students, Emily Worbington and Joe Volpe

You don't have to be from Polk County to be a good citrus scientist. I'm not sentimental about hiring faculty and graduate students. None of us can afford for me to choose anyone but the best and brightest in the world.

In fact, Worbington and Volpe are the first two students working with a newcomer to Polk County, UF/IFAS Assistant Professor John Chater. We hired Chater to evaluate new varieties. We have lots of potential solutions in existing untested cultivar candidates. Someone has to look. Chater is doing that with his students' help.

The work is personal to John, too. He scarcely recognizes Ventura County, California, now that the

lemon groves he grew up around are mostly gone. Chater and his students share a fascination with citrus science. They also share a perspective. They see the citrus industry not just as it is, but as it was.

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SEEKING SOLUTIONS

I see something similar in our faculty, no matter where they're from. They bring with them memories of the challenges of the places they grew up in. They, too, chose science as a way to seek solutions for their community.

These scientists who work in Lake Alfred also live in Lake Alfred, or at least within commuting distance. And they talk about how they mourn the changes they see on the drive, just like Worbington does.

They all want to give you reasons to replant. It matters that they care deeply about what they do, because it's not just a biological problem they're trying to solve. It's a human one. They appreciate that growers take risk with every new tree, and they need evidence that it's a risk worth taking.

Published papers build this evidence. Some growers read these papers. Others just want to know that UF is making a case for replanting based on science, not just gut instinct, anecdotal observation or hope.

Volpe recently replanted sweet oranges on an acre of his family's farm. It's not sentimentality. It's science. He'll do research. He's putting a little bit of skin in the game because of what he sees in improved cultural practices, new technology and the genetics he's working on. He'll measure success in published papers. He also hopes to measure it in citrus returning to Eagle Lake.

J. Scott Angle is senior vice president for agriculture and natural resources and leader of UF/IFAS.