



The Flavor Saver

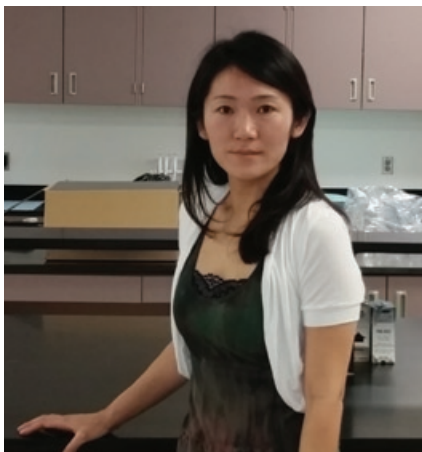
By Jack Payne, jackpayne@ufl.edu, @JackPayneIFAS

We recently found a top-notch citrus scientist in a most unexpected place — Mars.

That's the Mars candy company. Yu Wang was a research scientist working on cocoa. It's an unusual background for one of our hires, but these are unusual times.

In the research blitz we have mounted against HLB, we've got breeders, geneticists, engineers, entomologists, plant pathologists, soil scientists and horticulturalists. But this challenge is so grand that we have to constantly come at HLB from every angle we can think of. In this case, it was an angle we hadn't been thinking of.

A good flavor chemist such as Wang could be the key to helping us protect the great taste of orange juice



Chemist Yu Wang works with high-tech equipment to improve citrus taste and find new uses for byproducts.

in the age of HLB. She could also be the key to a powerful combination of boosting profitability while improving public health through the use of citrus products. More on that later.

When people visited Wang's office at the Citrus Research and Education Center this spring, the first thing she'd do is push a tray of Mars candy toward them — Milky Ways, Snickers bars, bite-sized Dove candies, and, of course, M&Ms. She had been doing great work at Mars. She also held a Massachusetts Institute of Technology postdoc, was awarded a prestigious Humboldt Research Fellowship in Germany and earned her doctorate from Rutgers.

Wang knows how to isolate chemical compounds in food and tie them to traits — taste, aroma and nutritional components. To a chemist, the same rules apply to cocoa or citrus. But from Wang's point of view, the world of citrus is a candy store. There are so many appealing projects to choose from. She's a true believer and ambassador for what she works on, as evidenced in her greeting of visitors as if they're trick-or-treaters.

DEDICATED TO IMPROVEMENT

Now, the citrus industry gets the devotion of this scientist motivated by both the chance to help save an industry and to help people make healthy choices that will immeasurably improve lives.

There's an opportunity in the HLB crisis to make improvements to citrus that we may not have pursued in normal times, if there was ever such a thing in citrus. Wang will join a team of researchers trying to crack the conundrum of HLB. What she'll work on immediately is how to help keep the industry afloat while the long-term solutions develop in our labs and greenhouses. But in the years we have ahead with this young researcher, we have the potential of finding new uses for byproducts like peels and seeds that currently go to waste.

As great as OJ tastes, there are subtle changes that HLB can exact on that taste. Wang intends to apply her knowledge of chemistry to identify which compounds change as a result of HLB, figure out how to eliminate, neutralize or multiply them, and seal in the flavor of Florida OJ that generations have come to love. In fact, she may even help make it taste better. Imagine that.

The same know-how that makes her a taste expert also gives her special insight into how the chemical makeup of citrus byproducts can be used to improve the nutritional value not only of citrus, but of other foods. Her long-range vision is to take citrus oils, pulp, seeds and peels and make them into nutritional supplements. She sees particular promise in citrus chemistry as a powerful tool to reduce obesity, diabetes and cardiovascular disease. She wants to use your trash as nutritional treasure.

So, no, we weren't looking for that. But we know good science and good scientists when we see them.

EQUIPPED FOR SUCCESS

We also partner with industry to help scientists achieve their potential



Finding New Ways To Improve
The Treatment Of Trees And Plants
Fungicides, Surfactants, Fertilizers

www.QuestProducts.us 785-542-2577

Florida Contact 941-735-0232



PENTRA-BARK® BARK PENETRATING SURFACTANT

Pentra Bark maximizes the penetration of pesticides through citrus tree bark.

- * Easy effective application
- * No drift or chemical trespass
- * Proven effective with various pesticides
- * Effective with Admire® spray equipment
- * The **only** tested and university proven bark penetrating surfactant

RELIANT®



- * Increased Effectiveness Against Greening
- * Promotes Plant Health
- * Boosts Plant Immune System
- * Can be applied foliar or drip irrigation with equal results



A good flavor chemist such as Wang could be the key to helping us protect the great taste of orange juice in the age of HLB.

She'll do it with the most modern tools and one of the best-known older ones — collaboration. She has already reached out to National Academy of Sciences member Linda Bartoshuk, a taste expert on our Gainesville campus. She plans to coordinate research with her colleagues in our Department of Food Science and Human Nutrition.

To the GC-O and other high-tech gadgetry we're outfitting the Wang lab with, I'd like to add a mini-fridge. I expect that when she finally runs out of Mars bars, she'll greet visitors to her office with single-serve Tropicana juice bottles and boxes. 🍊

Jack Payne is the University of Florida's senior vice president for agriculture and natural resources and head of UF's Institute of Food and Agricultural Sciences.

KNOW CITRUS GREENING

(Huanglongbing)

Take control of HLB with molecular field testing from the #1 innovator in agricultural diagnostics.

See us at
Citrus Expo
Booth #606

DNABLE
Rapid On-Site
DNA Detection
1-866-408-4597

ENVIROLOGIX
www.envirologix.com/hlb

A-DAB LLC

**Let me help you kill your psyllids
A-Dab will do you**

863-781-0536
P.O. Box 1554, Wauchula, FL. 33873 dbaterrell@yahoo.com