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# Hybrids could revolutionize state's citrus industry

**Hybrid citrus varieties under development could reduce the impact of citrus canker and other diseases while enhancing the tastes of citrus grown in Florida.**

By Susan Salisbury

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With such names as B4-78 and SF14W-62, they sound like jetliners.

But they're actually the names of newly developed hybrid citrus fruits.

Someday the tangerine, orange and grapefruit hybrids showcased and sampled at last week's Indian River Citrus Seminar in Fort Pierce could have fancy names like the Supersweet Valencia or the Tango Tangerine instead.

But the most important thing about them right now is that some experts and government officials believe at least a few of the more than two dozen new fruits presented at the seminar by U.S. Department of Agriculture and University of Florida researchers could hold the future of the Florida citrus industry.

"There's a real interest among growers in new varieties," said Greg McCollum, a research physiologist based at the USDA's Fort Pierce lab.

And consumers, too, some say. A perfect new variety would be one that's disease-resistant and consumer-friendly: seedless, tasty, easy-to-peel and not so juicy that it drips all over the place.

Both UF and the USDA could release as many as a dozen new varieties, such as a seedless Valencia orange and a seedless Fallglo tangerine, in the next year or two. That will signal a big change because Florida has not had a new citrus-fruit variety introduced to its groves since 1989, when the amber sweet orange debuted, said Calvin Arnold, director of the USDA Horticultural Research Lab in Fort Pierce.

Before they had to deal with citrus canker, which is now endemic, and citrus greening, which was detected in 2005, growers wanted researchers to test new varieties for years and years. They wanted to make sure there was no risk in planting them, whether it was low yields or disease problems, Arnold said.

Today they're clamoring for fruit that resists the two bacterial diseases, and they can't get it fast enough. "Now there is an urgency. The growers are willing to take on more risk," he said.

There's also a lot of interest in orange varieties that could extend the juice season because they ripen earlier or later than existing varieties and offer superior juice quality, said Jude Grosser, a cell geneticist at the UF Citrus Research and Education Center in Lake Alfred.

"That's my favorite," Grosser said, pointing to the SF14W-62 Valencia slices available for sampling at the citrus seminar. "It's done extremely well on all the taste panels. Valencias are more canker-tolerant than other orange varieties."

## **EXTENDING SEASONS**

Peter McClure, a district manager with Evans Properties, a Vero Beach-based citrus grower, said early-maturing Valencias, which ripen six to eight weeks earlier in the season, interest him.

"It would be great to have a variety to fill the gap between the early varieties and the Valencias," McClure said.

Barney Greene, a partner in Greene Groves and Ranch in Vero Beach, was curious about a red-fleshed pomelo, similar to a grapefruit, that Grosser said is canker-resistant.

"Canker-resistant isn't enough. It needs to be immune," Greene said.

Researchers say they are still at least a few years away from varieties that don't get canker at all.

In the meantime, growers are working on ways to get their hands on fruit advances faster.

Florida Citrus Packers, a trade group representing 90 percent of the state's citrus packinghouses, formed the New Varieties Development and Management Corp. last year. Executive Director Peter Chaires said that historically there has been a disconnect between research and developing marketing strategies.

"We need to be able to connect the market research and market knowledge and the horticultural knowledge of growing citrus in a viable business with the scientific research. Up to now, there has never been that," he said.

He said the varieties available for tasting at the seminar were just a sampling of the possibilities.

"We have over 15,000 unique mandarin varieties in research groves between different breeding programs," he said. "That is part of the reason we formed our organization now. We want it in place and ready to go."

What sells with consumers changes over time, and the nonprofit will help growers assess those trends.

"Things we would have looked for 15 years ago would not pass muster now. Years ago, people were looking for big tangerines. Now smaller fruit is popular," Chaires said.

## **SWEET TANGERINES**

Easy-to-peel seedless tangerine varieties could help Florida growers fight back against the oh-so-cute and tiny Spanish Clementine, which, according to FreshLook Marketing of Hoffman Estates, Ill., has gained a 64 percent share of the market. In comparison, honey tangerines from Florida have just 7 percent.

The USDA has five varieties in the pipeline that could be released to growers soon, McCollum said. Once the trees are in a grove, it still could be five to six years before the fruit is available at groceries.

This year, UF is releasing its first new variety, the LB8-9, a cross between a Minneola tangelo -- better known as a honeybell -- and a Clementine, Grosser said.

Fred Gmitter, a citrus geneticist at the Lake Alfred Center, is the lead researcher in the development of the LB8-9. The LB8-9 resembles the Minneola, which is popular with the gift-fruit industry; the hybrid is touted as a fruit that matures earlier, is of top quality, and is resistant to a disease that attacks it.

Other possible winners include the Robinson-Temple-Valencia orange hybrids, which lack seeds. Grosser said overseas markets are interested only in seedless fruit.

However, sometimes an outstanding fruit rewrites all of the rules.

"Some of the varieties at the show were large, but the internal quality was so exceptional," Chaires said. "We can have cases where if it is just the best piece of fruit somebody has ever eaten, it will change the trends."

## **THE TASTY 411**

UF's new variety, the tasty 411, an oversized tangerine-type fruit, is a good example, he said.

"It's beautiful externally and firm, so it will ship well. It peels well and sections beautifully," he added.

But taste may ultimately be the most important factor, a consumer expert said.

Bob Messenger, editor of the food industry newsletter The Morning Cup, based in Ellenton, said the citrus industry should develop new varieties that are both unique and sweet, and should de-emphasize the healthfulness message.

Consumers are bored with the same old fruit and would like something that surprises them, he said.

"I think sweet is the key. We are talking America here. We have this gigantic sweet tooth," Messenger said. "

"What matters most is how it tastes when it hits the tongue."