



Photos/International Fruit Genetics

David Cain, above, directs Bakersfield-based International Fruit Genetics plant breeding programs and has played a key role in bringing many table grape varieties into production. New table grape varieties from IFG include, clockwise from upper right, Funny Fingers, Sweet Sapphire, Jack's Salute (named for IFG founder Jack Pandol Jr.), Sweet Celebration and Cotton Candy. In addition to bringing consumers interesting and flavorful grapes, plant breeders are developing varieties with lower cultural requirements and higher yields.

New varieties bring new attributes to table grapes

By Kate Campbell

They look like grapes, but they taste like candy, strawberries, pineapple and many other interesting flavors—and today's table grapes also come in new colors and unexpected shapes.

David Cain, head of plant breeding activities for Bakersfield-based International Fruit Genetics, said there's a big shift going on right now in grape production, in California and around the world. Older, labor- and water-intensive grape varieties are being phased out, as farmers plant eye-catching, taste-tickling varieties with higher yields.

"Growers come to our company asking about new varieties," Cain said, adding that a number are looking to replace older varieties, such as Thompson seedless and autumn royal. "They want to try something new."

He said the company doesn't create genetically engineered crops; instead, new varieties are created using advanced breeding techniques in traditional approaches.

IFG was founded in 2001 by table grape grower Jack Pandol Jr. and the owners of Sunridge Nurseries, Glen and Terrie Stoller.

It used to be that new plant varieties were developed during years of study and experimentation, involving research activities at both the U.S. Department of Agriculture and universities. But these days, a lot of that painstaking work is being done by private plant breeders such as Cain and IFG.

"Table grape breeding is an ongoing effort, as is breeding of most horticultural plants," said Matthew Fidelibus, viticulture and enology specialist with University of California

Cooperative Extension at the Kearney Agricultural Center near Parlier.

"New (table grape) varieties are regularly being introduced," Fidelibus said. "Different breeding programs may prioritize different traits, but I think there's broad interest in varieties that require less hand-work and plant growth regulators, and are more disease resistant than existing varieties."

Yields are important too, he said, particularly packable yields, so productivity and uniform high quality are also important traits. Postharvest storability is another important characteristic, particularly for varieties that are expected to be exported.

There's also a lot of interest in grapes with novel flavors and shapes, he said, such as two recently introduced varieties: "Cotton Candy," which hints at the flavor of the spun

sugar treat, and “Witch Fingers,” which has long berries and a very dark skin color.

“Most of the new varieties are patented and proprietary, in contrast with some of the current industry-standard varieties that were never patented,” Fidelibus said.

At IFG, Cain said, licensing “is the focus” for the company, which works with grape growers around the world.

“Right now, our new varieties are being grown in 11 countries. Consumer tastes are always changing, and development of new varieties is one way to create excitement in the produce aisles,” he said. “We’re trying to develop varieties that are friendlier to both consumers and growers.”

With replanting, California table grape vineyards are producing consumer favorites and newer varieties, with more than 10,000 non-bearing acres poised to come into production.

The California Table Grape Commission said preliminary 2015 harvest forecasts estimate 113.3 million 19-pound boxes, up from 110.9 million last year. The state’s record, set in 2013, was 116.3 million.

Sizing up the 2015 crop, Atomic Torosian, a partner at Crown Jewels Produce in Fresno, told reporters during a recent crop briefing that some varieties are being pulled out—su-graones, princess and Thompson, along with

crimsons and red globes. Newer varieties are beginning to come into production.

In the past 10 years, table grape vineyard acres have increased from 83,300 to 110,000 acres, while production increased from 770,000 tons in 2004 to 1.2 million tons in 2013, valued at about \$1.5 billion, according to the U.S. Department of Agriculture National Agricultural Statistics Service.

San Joaquin Valley farm manager and table grape grower Tom Oglesby said it’s an exciting time for the sector, with more varieties, flavors, colors and berry shapes available than ever before.

“We’re dealing with increased labor, water and land costs,” said Oglesby, who has been working in San Joaquin Valley table grape vineyards since 1983. “It used to be yields were about 750 boxes an acre; then it went to 1,000 boxes. Now, yields have to be in the range of 1,200 to 1,600 boxes per acre to support production costs and favorable retail pricing.”

But the big thing, “the wild card,” he said, is labor.

“Water is essential. We have to have that for sure, but labor into the future will be a big issue because the crop is hand harvested,” Oglesby said.

The development of new varieties is a ben-

efit and an important way to stay productive, he said.

“Varieties being bred these days are highly productive and, from a taste standpoint, delicious,” Oglesby said. “Most are bred to require lower inputs. Everything is being done to control labor costs.”

He said it’s unlikely new table grape varieties will replace hand labor for harvesting, but new varieties that require less leafing, girdling, tipping and pruning can go a long way to reducing overall labor costs in vineyards.

“The plant breeders are looking for mixes of beautiful reds, greens and blacks, but there’s also a tremendous amount of private research going on that’s very exciting, that will help us in so many other ways,” Oglesby said.

When table grape harvest is in full swing, he said, the grapes he brings home for the enjoyment of his own family include flame seedless.

“I know it’s one of the older varieties and it can be hard to grow, but it’s my favorite,” he said. “For those who haven’t decided on their favorite grape variety, today there are more to choose from than ever. That’s where the fun comes in.”

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