

New Stone Fruit Varieties Coming to Commercial Growers

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By Ronda Payne



Seven new varieties of peaches, nectarines and plums could be hitting the market soon, thanks to an expedited process for testing.

Accessing new varieties of domestically-bred stone fruit has been problematic for growers in the past due to lengthy lead times of both variety testing and plum pox virus clean-up.

Through the work of the University of Guelph, Agriculture and Agri-Food Canada (AAFC), Vineland Research and Innovation Centre and a new approach by the Canadian Food Inspection Agency (CFIA), varieties will make it through the process in about half the time according to Michael Kauzlaric, technology scout and grower outreach with Vineland.

On-site testing is in its third year for seven varieties of peaches, nectarines and pears with a plan to see these new options in retailer hands for further evaluation soon. Based on feedback, the fruit trees would be offered commercially to growers in the future.

Lack of new fruit varieties in the market in the past can be blamed on the plum pox virus, which despite its name, impacts more than just plum trees. The virus doesn't kill trees, but it negatively influences yields (often by as much as 30 per cent) of peaches, plums, nectarines and even ornamental and almond trees.

Western Canada has been free of the virus but fear of the virus spreading has caused a lack of new varieties of soft fruit bred within the domestic market.

Consumers however, don't wait for breeding programs to get through the work. New varieties are demanded all the time and can be sourced from international growers when domestic growers can't comply.

"Consumers' tastes have changed. The newer variety might have more colour, might be a bigger size, might have more sugar," says Kaulzaric.

When the plum pox virus was discovered in Southern Ontario around the year 2000, a 20 by 60 kilometre quarantine zone was established in the Niagara region to prevent further contamination to the other commercial growing regions in BC's Okanagan Valley, New Brunswick and Nova Scotia. Varieties grown in the contaminated region's breeding program had to be cleaned of the virus, then tested for market viability before they could be shared with the rest of the country. It was a lengthy and painstaking process.

Now, since the CFIA has allowed the processes of virus cleaning and variety testing to be done simultaneously, growers have access to new varieties grown in a northern climate which Hank Markgraf, grower services manager with BC Tree Fruits, sees as beneficial.

"In the soft fruit world, it's advantageous to have – especially in peaches – something from a more northern climate," Markgraf says. "[We can get] lots of them from California, none of which we can grow."

The concept of doing the breeding and cleanup work simultaneously was presented to the CFIA by Guelph's breeding program at Vineland to speed the process up, Kauzlaric notes.

"The way that sped up was in August 2012, plant material was sent to CFIA in Sydney [Nova Scotia] and at that same time, it was grafted at Vineland Research as well," he says. "We pretty much cut the timeline by five years. We went from a 10-year program to a five-year program now just because CFIA allows us to do two things at once."

Vineland's Tender Fruit Evaluation Committee (TFEC) - comprised of growers, nurseries, marketers and retailers - is evaluating the trees and fruit based on suitability to the Canadian climate, disease tolerance/resistance, degree of fruit sweetness and fruit flesh colour, texture and flavour. For example, apricots with a later harvest and a stronger blush to the skin will be evaluated this year.

From the 2012 breeding block varieties, two peach and two nectarine varieties showed promise. The TFEC urged the grafting of a few hundred trees to be planted in the quarantine zone in 2014 for commercial grower testing.

"One of those varieties [planted in 2014] is showing promise," explains Kauzlaric. "Vineland is looking to move that ahead in the commercial stream."

Since 2012, about 600 trees are planted each year at commercial grower sites.

"There's been over 2,000 test trees planted out [at 18 commercial sites], representing about 30 different selections of peach, plum, pear, nectarine and apricot," he notes. "In 2017, those trees that were planted in 2014, they have produced some fruit. We've had some grower evaluation."

Some grower testing is being done in BC, although most is in Southern Ontario.

More commercial growers are needed for planting 50 to 200 trees per site to see how new varieties do in a truly commercial setting. Kauzlaric notes it will be a matter of time to see if any of the varieties planted in BC have promise in the region. From the 30 different varieties planted for testing in Southern Ontario, two

peaches, one yellow Japanese plum and two apricots have potential. Commercial plans have begun for these five fruit varieties.

“Every year there has been more test fruit that has been distributed to growers across the industry,” says Kauzlaric. “Through the testing we’ve had a third-party contractor undertake the field evaluations to give a non-biased opinion. Winter hardiness was evaluated, harvest timing was evaluated, filling the gaps – there’s still some gaps in the harvest window. Another criteria was replacing an existing variety. We’re hoping that by 2021 there could be some fruit [for sale] in the retail stores.”

Having varieties bred in Canada is a win according to Markgraf.

“The world is hungry for new varieties,” he explains. “Bred in a northern climate, it is [good] because it’s Canadian. All Canadian [growers] get equal access to it. It’s a good thing.”

The decreased timelines on new stone fruit varieties means clean, domestically-bred stock will soon be available to growers for commercial growing and testing, depending upon the varieties being released from the program at Vineland.

For more information about grower testing, contact Michael Kauzlaric at 905-562-0320, extension 755.

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