INNOVATIONS

Michael Kauzlaric works as a technology scout at Vineland Research and Innovation. PHOTO: LILIAN SCHAER

One of the new peaches growing at the Vineland Research and Innovation farm. PHOTO: LILIAN SCHAER

TREE FRUIT

New tender fruit varieties are just peachy

Harvest window, flavour and climate hardiness among most sought-after characteristics

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An early ripening, yellow-flesh peach will be moving into first stage commercialization next year.

It's among several promising new tender fruit varieties from the University of Guelph and Agriculture and Agri-Food Canada (AAFC) breeding programs that are emerging as potential winners in research under way at Vineland Research Innovation Centre (Vineland) in conjunction with Ontario Tender Fruit.

"The industry is excited – this is the earliest ripening variety from the breeding program to date, about seven to 10 days ahead of anything existing, so some places in Niagara could see first-of-July peaches," says Michael Kauzlaric, Technology Scout and Grower Outreach at Vineland.

WHY IT MATTERS

Earlier maturing varieties help extend the harvest season for Ontario fruit growers and get local fruit onto store shelves sooner.

The new peach variety has also proven to be winter-hardy over several years of testing with local growers, and its fruit has great flavour and high sugar levels, Kauzlaric said.

A yellow Japanese plum that offers improved disease tolerance and better post-harvest fruit quality compared to currently available varieties, and two

Left: New nectarine varieties growing at Vineland. PHOTO: LILIAN SCHAER

promising apricot varieties are also moving toward commercialization.

"There are also some European pears that we're looking at as well, and some nectarines that are quite interesting, and even a sweet cherry variety as well, which is uncommon for Ontario," he says. "We are trying to keep up with international trade and what's being sold in grocery stores now from other territories."

The first trees in the program went into the ground in 2014 and new varieties of peach, nectarine, pear, plum and apricot trees are being added each year both at Vineland and at commercial grower sites in the region to keep the pipeline of prospects full. This spring marked the first year that selections from other breeding programs have also been added to the mix for testing.

New varieties also have to be flavourful, easy to grow and fill gaps in existing production.

"The flow to retail needs to be steady so we're always looking to new varieties to fill harvest window gaps so retailers aren't waiting for fruit," says Sarah Marshall, general manager of Ontario Tender Fruit.

David Hipple grows tender fruit on a farm that has been in his family for 200 years, snugged up against the Niagara Escarpment halfway between Beamsville and Vineland. For the last five years, he's been growing test varieties of plums, peaches and nectarines for the program after an unfilled tree order left him with some vacant land to fill.

"We don't have a perfect variety; each one has their ups and downs whether failure with the fruit or the tree, but it's important to keep striving for the perfect one," he says. "We want varieties to fill the gaps and give us a nice, solid supply of peaches, instead of peaks and valleys."

"A lot of it is in timing. We have a workforce to keep busy, but we're also looking for traits that are better," he said.

During the summer harvest season, Marshall leads weekly new variety evaluation tours at Vineland where freshly picked, ripe fruit from the trial varieties is tasted and evaluated for characteristics such as texture, flavour, colour and how easily the flesh separates from the pit.

"We look at fruit for at least three seasons before we make a decision about moving forward. One year could be good, the next horrible, so we need to give it a fair trial before we go to next step," she says.

That next step is generating virus-free plant material that can go to growers for on-farm testing. Niagara Region is in a quarantine zone for Plum Pox Virus, a devastating stone fruit viral disease, so the Canadian Food Inspection Agency (CFIA) doesn't allow propagation inside that zone. Plant material has to be sent to the CFIA lab on Vancouver Island for clean up, a multi-year process, before going to grower commercial test sites.

Varieties that then get the grower nod are named and nursery partners are signed up to make trees available for sale.

According to Marshall, funding from both Growing Forward 2 and now the Canadian Agricultural Partnership are supporting the new variety development work.

It's anticipated that commercial quantities of the most promising varieties will start being available for planting by 2021. This means the first fruit should be available to consumers by 2024.

With files from AgInnovation Ontario

New fruit varieties are presented at Vineland Research and Innovation. PHOTO: LILIAN SCHAER