

A made-in-Ontario tomato, courtesy of Vineland Research

Six-year study seeks greenhouse tomato ideal for our climate

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By Luke Edwards



The plants are in for another year of Vineland Research and Innovation Centre's greenhouse tomato program that's seeking to develop a made-in-Ontario hybrid for local climate conditions. In the photo is research scientist, bioinformatics, Travis Banks. - Luke Edwards/Metroland

Right now they're tiny seedlings, only a few inches high. In 10 months, they'll stretch toward the top of the pre-commercial research greenhouse on the campus of Vineland Research and Innovation Centre.

And with any luck, in two years they'll be supplying grocers and consumers across the province with delicious tomatoes.

While many home gardens remain under snow, or at the very least frozen in a deep frost, greenhouse operators are busy getting their tomato plants up and growing. At Vineland, where researchers have been working for six years to develop a made-

in-Ontario tomato hybrid suited to the province's climate and conditions, it's a labour of love for the many teams involved.

"It's a lot of people working together. It's really a shared win," said Travis Banks, research scientist, bioinformatics at Vineland.

The tomato program at Vineland began six years ago, when the centre partnered with the Ontario Greenhouse Vegetable Growers. Most of the tomato plants grown in Ontario greenhouses are European varieties suited for the European climate.

"In the summertime, it just doesn't cool off in our greenhouses," Banks said.

That added heat means added stress for the plant. Added stress means lower yield. The research study began with researchers at Vineland, led by Valerio Primomo, bringing in dozens of parent plants. After figuring out the traits of each, they began creating hybrid crosses from the parent plants.

From there researchers narrow down the hybrids, with input from David Liscombe, who studies the chemistry of the tomatoes, Amy Bowen and the sensory panel of trained tasters, and Primomo.

Earlier this month, the newest plants settled into their home for the next 10 months at the pre-commercial research greenhouse. The project is down to three varieties, and once this growing season is complete one or two will be selected.

In the meantime, staff are busy every day monitoring the plants, as well as the water, nutrients and light they're taking in. As they continue to grow Banks said the work will turn to trimming and pruning, and of course harvesting the tomatoes.



<https://youtu.be/-rgdcVsF12g>

The hybrids will also be tested by commercial growers in the Leamington area, which helps researchers gather more information. Last year marked the first complete year of testing by commercial growers.

“The data coming back mirrored what we saw here,” Banks said.

That included a tomato that consumers preferred as much or more than the conventional varieties currently grown, as well as a higher yield.

“Our varieties just continue to produce,” Banks said.

If the project continues to progress, consumers can expect to see the new varieties on the shelves as early as spring 2021.

“Tomatoes bred in Ontario, grown in Ontario, will be sold in Ontario,” Banks said.

<https://www.niagarathisweek.com/news-story/9196690-a-made-in-ontario-tomato-courtesy-of-vineland-research/>