Hot potato: Sweet innovation at Vineland Research Centre

July 26, 2017
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Distributed to six (6) Sun Media publications in the Niagara Region

Valerio Primomo, research scientist vegetable breeding, talks about sweet potatoes, at the Vineland Research and Innovation Centre's open house called What's Growin' On at one of their fields in Vineland on Wednesday, July 26, 2017. They talked about sweet potatoes, okra, eggplant, peaches and apricots. Julie Jocsak/ St. Catharines Standard/ Postmedia Network

It's called the V12B445 but it will have a more palatable name by the time it hits store shelves in 2019.

The new sweet potato at Vineland Research and Innovation Centre is the result of years of work to develop a better option for Canadian farmers that's also embraced by eaters.

"When we tested with consumers, they liked it," said Valerio Primomo, a research scientist in vegetable breeding, holding up the innovative tuber during an open house at the centre's Victoria Avenue farm Wednesday evening.

While Canadian appetites for sweet potatoes have skyrocketed in recent years, local production remains small. Primomo said Canada imports about 40,000 tonnes of sweet potatoes from the United States. The main Canadian crops are in Simcoe, where 800 hectares grow in sandy soil. There's also some small production in Nova Scotia and Quebec.

Most farmers grow the Covington variety developed in the United States and harvest in October when it gets cooler. Primomo said the problem is when the crops are exposed to temperatures less than 10°C, they start to rot.

"Some growers left acres in the field because there was no point in harvesting," he said.

Vineland's goal was to develop a variety for Canada that can be harvested earlier so it won't be exposed to the lower temperatures.

Researchers tested more than 2,000 seedlings over a period of years, collaborating with Louisiana State University to develop an early season variety. Besides Ontario, there are test sites in Manitoba, B.C., Quebec and Nova Scotia.

The result is the V12B445 that Primomo said has 30 per cent more yield than the Covington.

There's a difference in colour, too. While the Covington is a paler orange, the V12B445 that Primomo cuts into on the tour is a deeper orange. He said both are high in beta carotene.

Jim Brandle, Vineland's chief executive officer, said sweet potato consumption has doubled since 2008.

"Most are off-shore," he said. "We can grow it here."

The centre, which began in 1906, is celebrating it's 10th year as an independent organization with a board.

Prior to 2007 it had been run by the province and then University of Guelph. It fell on hard times and came up with the new business model.

"This is the phoenix rising from the ashes," Brandle said Wednesday.

The centre, with more than 100 employees, has eight patents and eight trademarks filed.

It’s had success introducing products to the market, including the Cold Snap Pear, which has a higher resistance to disease and longer shelf life, and the Canadian Shield Rose, which is black spot resistant.

It’s currently in its last year of trials for growing Canadian-friendly eggplant and okra.

Viliam Zvalo, a research scientist in vegetable production, said $5 billion of vegetables and fruits are imported into Canada and it’s growing. Eggplant and okra make up $50 million of that.

Vineland wanted to look into how Canadian farmers could supply imported crops and keep dollars at home. It tested seeds for the last several years to determine which varieties are best suited to Canada.

There are now 52 hectares growing from B.C. to the Maritimes and local eggplant and okra is arriving in stores.

“We believe there is money to be made in okra and eggplant,” Zvalo said.

Vineland’s research into sweet potatoes won’t end with the V12B445 either.

Primomo said with the popularity of sweet potato fries, the research station is working with McCain Foods to develop a variety of sweet potato that fries better. The food company uses a batter to make the sweet potato fries crisper because otherwise they get soggy. The goal is a potato with less moisture.

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