

## The Horticultural Experiment Station

By Jessica Linzel

The Horticultural Experiment Station in Vineland, Ontario was founded in 1906 to develop, test, and introduce plant varieties, particularly fruits, as well as to produce virus-free stock for Ontario farmers. Prior to 1906 there were 15 fruit experiment stations on grower-owned and operated "variety test" plots throughout Ontario, including ones in Winona, Grimsby, Jordan Station and St. Catharines in cooperation with the Ontario Fruit Growers' Association and the Department of Agriculture.

However, there was still a need for more advanced, full-time testing. The land was donated by the philanthropic, Vineland-born Moses F. Rittenhouse and the equipment was purchased by the provincial Department of Agriculture. Research staff, infrastructure, supplies and other costs continued to be funded by the province throughout the 20th century.

The Ontario School of Agriculture in Guelph was similarly begun in 1874 on a farm provided by the Ontario government to teach young people about agriculture and to implement modern technologies. However, due to its

climate, it could not conduct the tests that were necessary for certain fruits. Proponents of this new Horticultural Experiment Station by the lakeshore in Vineland stated: "The growing importance of the fruit interests and the multiplicity of the unsolved problems connected with it, well warrant the careful consideration of the Government and the united efforts of the growers." Thus, it was important that such a research centre be opened and operated in Niagara itself to support local efforts in a prime fruit-growing district.

Throughout the 20th century, Ontario fruits, vegetables, and nursery stock fell prey to various diseases and viruses. This experiment station, along with the Dominion Plant Pathology Laboratory in St. Catharines, played a vital role in assigning solutions to these issues. They began by preparing the land and in 1908–09 planted a handful of fruit trees including apple, apricot, cherry, peach, pear, plum and quince along with grapevines and small fruits like currants, gooseberries, raspberries, blackberries, strawberries, and rows of select vegetables. Over 1,000 different varieties were planted in that first round of experimentation.

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Later, they constructed buildings on the property adjacent to the orchards, and eventually leased additional lands in Louth and Clinton townships to accommodate their growing research experiments. By 1956, the experiment station had grown from two to 23 staff members, with 27 major buildings on 213 acres of land.

The station held several laboratories dedicated to different forms of research. In 1911, the Dominion Entomological Laboratory, later to become the Fruit Insect Laboratory, was established as one of the first four labs in Canada. These scientists examined pest damage brought on by aphids, moths, curculio, and other insects that had been plaguing fruits in Niagara throughout the 19th century. The first entomologist at this laboratory in Vineland was a graduate of the Ontario Agricultural College in Guelph, demonstrating the impact of higher education for the furthering of research in this sector. Scientists also developed research in pruning methods, emphasizing moderation in pruning young trees as opposed to what had been taught prior to 1920.

Due in large part to the experimentation at these labs in Vineland, a spray service for fruit crops, advising farmers about when and with what to spray, had begun by 1926 on a more regular basis. At this time there were only two spray services—one in Niagara for tender fruits, and one for the remainder of the province that was mostly geared towards apples.

After the Department of Agriculture appointed an Ontario Wine Standards committee in 1933, government leaders urged the production of new varieties of grapes for finer table wines, and thus a small winery was opened alongside the experiment station in Vineland in the 1940s. From 1918 to 1960, 80,000 grape seedlings were grown at the experiment station as researchers studied grape varieties and hybrids, leading into what was called the “white wine bloom of the 1970s.”

This experiment station was renamed the Horticultural Research Institute of Ontario in 1966. It had an incredible impact on Niagara’s agricultural development throughout the 20th century through coordinating horticultural research and service programs by the Ontario government. It continues to make inroads in the region’s agri-food sector today as the Vineland Research and Innovation Centre.

## References

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