

Raspberry Production Options
Long Cane Raspberry Production System for Acreage Expansion, Farm Diversification, Risk Mitigation and Season Extension

Dr. Gary Gao, Professor and Extension Specialist, The Ohio State University

Raspberry production options in the Midwest include open field, high tunnel, and possibly greenhouse in Ohio and beyond. Long cane raspberry production in a high tunnel or an umbrella structure is the latest addition to our toolbox. I am very excited to share some progress updates with you about our long cane raspberry project. This project is funded by an Ohio Department of Agriculture through a Specialty Crop Block Grant. Our project officially started in late 2021 and will last two years.

What is the long cane raspberry production? Long cane raspberry production system is a relatively new raspberry production method where raspberry bushes with long floricanes (5 feet and 10 inches) are produced in high tunnels or greenhouses, stored in coolers in autumn and winter and then shipped to growers in spring for planting and fruiting in summer. Growers can plant these “ready-made” plants with fruiting canes in a soilless media and a protected environment like a high tunnel or an unheated greenhouse or even under solar panels for fruit production in summer. This new and innovative system could help growers get around the problems of poor soil drainage that limit new cane growth and fluctuating spring temperatures that damage floricanes. The long cane production has been very popular in Europe and Canada. This approach has not been a viable option for growers in Ohio because there was not a nursery that grows and sells long cane raspberries.



Long cane raspberry trial plot at OSU South Centers near Piketon. Photo by Gary Gao, The Ohio State University. (left). Ryan Slaughter and Paul O’Bryant, both research assistants, are shown here to install T-posts in a high tunnel. Photo by Gary Gao, The Ohio State University. (right)

The bottleneck of long cane raspberry production has always been the lack of available long-cane raspberry plants nurseries. A March 2021 news release entitled “Strawberry Tray Plants & Long Cane Bramble Plants” by Nourse Farms (Whatley, MA) caught my attention since raspberry bushes come with long fruiting canes for growing in soilless media. This is the breakthrough that I have been looking for! There is also an option to purchase long cane raspberry plants from Canada. I am hoping that a nursery grower or two in Ohio or a surrounding state will grow long cane raspberry plants for sale since shipping costs are also very high.



Three separate grower trials have been set up as well. Containers, media, and plant materials are identical. Fertilization program and watering intervals are different since each site is different. We will need to summarize the information from all the trials and the end of the season to determine which approaches will be good for growing conditions in southern and northern parts in Ohio.

Left: Fresh fruits harvested from the grower trial at Hirsch's Fruit Farm in Chillicothe, OH. Photo by Steve Hirsch.



As a part of this project, I took a field trip to the Onésime Pouliot Farm in Saint-Jean-de-l'Île-d'Orléans, Québec, Canada to learn how long cane raspberry production is done on a commercial scale. Their raspberry bushes were at the peak harvest when I visited the farm on August 11, 2022. It was neat to see the "walls" of raspberries. Instead of growing them in the traditional high tunnels, the growers there designed an umbrella like structure to protect plants and fruits from

rain and wind. All plants were grown in coco coir and fertigated with water-soluble fertilizers. They have been doing this for three years now. They also grow long cane raspberry plants for sale in Canada and US. However, we still need to figure how to get them from Canada to Ohio.

I got to taste some freshly picked raspberries that day. Bonnie Lewis, Glen Mor, Kwanza, Skye, and Tulameen were the featured cultivars. Bonnie Lewis, Glen Mor, and Skye are not available in the US yet. I was very impressed by their yields and fruit quality.



I am very happy to report that we were able to grow the long cane raspberry plants and produce quite bit fruits. We also found out that there is a steep learning curve for this new production system. It is also good to know that a group of researchers and growers in North Carolina are testing to see if freshly picked raspberries during the strawberry harvest season are a winning combination for them. It was reported

that the breakeven point is 0.8 kilograms of fruit per cane while average fruit yield is 1.3 kilograms per cane. There is a strong likelihood that the long cane raspberry production will become a standard production system for growers in Ohio and Michigan and beyond.