

Outreach

Title: Protected Structure Production of Primocane Fruiting Raspberries and Blackberries in the Deep South

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Public Abstract

A demonstration planting of primocane-type raspberry and blackberry cultivars was established in May 2021 in Baton Rouge, Louisiana at the LSU Horticulture Fill Farm on the LSU campus. The planting stock consisted of a combination of bare root and fresh plug plant material obtained from several certified commercial nurseries in the U.S. Eight primocane-type raspberry cultivars and three primocane-type blackberry cultivars were successfully established and grew well throughout the summer and fall. The plant growth and development characteristics, insect and disease incidence, time to flowering, and fruit characteristics of each cultivar were recorded. Abundant and high quality raspberry fruiting occurred in all of the primocane-type cultivars during the fall months. Among the primocane-type blackberries, 'Freedom' produced a high amount of fruit from late July through August. None of the other blackberry cultivars fruited in the summer or fall months.

The establishment of the primocane-type blackberry and raspberry planting at LSU in Baton Rouge generated considerable interest among commercial growers and gardeners. This was culminated by attendance of more than 80 participants at the Louisiana Fruit and Vegetable Growers Field Day on November 17.

Introduction

Demand for berry crops continues to increase and market opportunities for high quality locally-grown raspberries and blackberries are expanding throughout the U.S. Significant interest exists among both commercial growers and gardeners in the Deep South in expanding the season of availability of blackberries. In the case of raspberries, any locally-grown fruit at all would be well received. Advances in production technology, substrate culture, controlled environment growing conditions, and cultivar diversification allow for successful blackberry and raspberry production in the Deep South.

The high day and night temperatures during the summer months limit the success of florican-type raspberry production in the Deep South. However, primocane-type raspberry production is possible, if the plants can be managed to grow well vegetatively during the summer. The cooler weather during the fall months is more conducive to fruit production. Furthermore, high tunnel production can extend the duration of fruit availability into the winter months, depending on the location in the Deep South.

Substrate culture and container production of blackberries and raspberries in sub-tropical growing environments is practiced worldwide. Therefore, the initiation of local raspberry production, along with extending the blackberry harvest season are opportunities for expansion and diversification of the specialty crop sector throughout the Deep South.

Description of Outreach Activity

A demonstration planting of eight primocane-type raspberry cultivars and three primocane-type blackberry cultivars was successfully established in Baton Rouge, LA. The plants were grown in containers and a soilless substrate mix was used for the rooting environment. The plants grew well throughout the summer and fall. The plant growth and development characteristics, insect and disease incidence, time to flowering, and fruit characteristics of each cultivar were recorded.

Commercial producers, extension personnel, and the general public were able to view the caneberries during the entire vegetative growth, flowering, and fruiting cycle. Presentations on primocane raspberry and blackberry production were given by the PI and Co-PI at the annual Louisiana Fruit and Vegetable Growers Field Day in Baton Rouge, on November 17.

Results or Outcome

The establishment of the primocane-type blackberry and raspberry planting at LSU in Baton Rouge generated considerable interest among commercial growers and gardeners. This was culminated by attendance of more than 80 participants at the Louisiana Fruit and Vegetable Growers Field Day on November 17. The attendees were able to sample high quality fruit from a number of cultivars. Illustrated examples of the plant growth and fruiting from some of the cultivars are shown in the figures below.



'Heritage' (left) and 'Polka' (right) primocane-type raspberries in mid-November.



'Nantahala' (left) and 'BP-1' (right) primocane-type raspberries in mid-November.



PrimeArk-45 blackberries in mid-November. Fall flowering and fruiting on all of the primocane blackberry cultivars has not been initiated as of mid-November.

Visits were made to numerous commercial blackberry growers and university experimental plots in the states of Texas, Louisiana, Mississippi, Alabama, Georgia, Florida, South Carolina, and North Carolina during the summer and early fall months. The information gleaned from the observations and discussions with growers and researchers is being incorporated in the preparation of the 'Protected Structure Raspberry and Blackberry Production Guide for the Deep South'.

In addition, Power Point and video presentations on the establishment, cultural practices, fruiting, postharvest care, and marketing of primocane-type raspberries and blackberries in the Deep South have been recorded. More presentations and video segments are planned during the winter months. This will be culminated by forwarding a link of the presentations to SRSFC member states for distribution to growers and home gardeners in the different states.

A presentation on the adaptability of primocane-type raspberries and blackberries in the Deep South will also be given at the American Society for Horticultural Science -Southern Region annual meeting in New Orleans in early February, 2022.