

Ornamental Blueberry Variety Development at The University of Georgia

A Progress Report for 2011

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For nearly 70 years UGA has been involved in commercial blueberry variety development. There has been great success with the effort, and a strong viable industry exists due largely, in part, to the research. With the growth of the commercial blueberry industry has come an increased interest from homeowners and consumers in having blueberry varieties for their use as well. In fact, a rapidly growing movement across much of the U.S. is to have edible garden and landscape plants. Coupling edibility with attractive ornamental traits adds even more value to the plant material. The expectation is that consumers can “surround themselves with flavorful beauty”.

In 2005 we initiated a pilot effort for selecting blueberries for the edible ornamental/home garden consumer. The effort quickly gained momentum from the ornamental industry, and is thus being expanded and becoming a second major effort of our UGA Blueberry Breeding Program. We are seeking a diversity of plant types for this industry that are specifically ornamental in nature. Traits being sought include compact plant habits, colorful berries, novel plant characteristics, and attractive foliage. Blueberry varieties for these markets do not need typical commercial production attributes such as concentrated ripening and fruit quality traits for long distant shipping. Therefore, this entire effort is substantially different than the commercial production evaluations we have done for years. To this end, we have begun to partner with some leading ornamental nurseries to provide us input and test our edible ornamental selections for their potential growing and marketing conditions. We now have more than 100 ornamental blueberry selections we are evaluating. This summary contains comments and photos from some of the more interesting ornamental blueberries for 2011.

We currently have two released varieties that have been patented and licensed to ornamental nurseries. The first of these varieties, Blue Suede™ should be available in Spring 2012. This new home owner blueberry variety offers striking sky blue fruit and beautiful fall foliage color development for added attraction (Fig. 1). The variety is exclusively licensed to McCorkle's Nursery, Inc, and has become part of their Gardener's Confidence Collection. More information can be found at: [Gardeners Confidence Collection - Blue Suede® Southern Highbush Blueberry](#)

Our second ornamental release is Summer Sunset™. This new blueberry variety has great appeal based on its multicolored berries. An accent of sunset orange fruit, draped against a backdrop of nonglaucous, deep green foliage is present on the plant through much of the spring (Fig. 2A). As the fruit begins to ripen, berries develop a richer

orange hue, followed by a deep red, until eventually the ripe berry turns midnight blue (Fig. 2B). The presence of the array of berry colors makes for good curbside appeal, and the mature fruit are very edible, with a full flavored blueberry taste. This plant continues to grow well at test sites in both south and middle Georgia. It tends to flower around the middle of March, with fruit beginning to ripen in early to mid June. Fruit ripening is protracted, so consumers can have a steady supply of fruit and color for several weeks during the early to mid summer months. We expect this new variety to move quickly in the ornamental trade, hopefully, opening doors for a whole new product line of attractive ornamental blueberries. Summer SunsetTM has been exclusively licensed to James Greenhouse and Agri-Starts, Inc. in the U.S. Look for promotions concerning this new ornamental variety to begin in 2012.

In addition to the two new ornamental blueberry releases mentioned above, we have an abundance of exciting new selections under evaluation. We have several additional selections with various patterns of berry colors (Fig. 3). A standout for 2010 and 2011 has been TO-1098 (Fig. 4). The berries have a brick red contrast with the medium green foliage for much of the late spring and early summer (Fig. 4A and 4B). As the berries begin to ripen, they too turn various shades of yellow, orange, and red before becoming midnight blue at full maturity. The plant structure for TO-1098 is somewhat more upright than Summer SunsetTM. Also, berries mature 2 or more weeks after Summer SunsetTM, offering a later season multi-colored berry. Overall growth of the plant was very good in 2010 and 2011 at both the Griffin and Alapaha test sites. However, the selection is relatively new, and we will continue to evaluate for a few more years.

Compact or dwarf plants often have considerable appeal to consumers due to less space being required, and overall look for certain landscape settings. We are currently developing new dwarf edible blueberries. The selection TO-1088, which continues to perform well, is shown in a series of photos depicting a 1 year cycle in Fig. 5. Note Fig. 5A shows plants in late summer 2009 with a nice compact, full growth habit. Following in January 2010, Fig. 5B shows that TO-1088 has great winter color in South Georgia, maintaining foliage cover throughout the winter in that location. By early spring, the compact plant is in full flower (Fig. 5C), and by early summer, very tasty fruit are present on the compact hedge. Figure 6 shows flowers and fruit of TO-1088 during the 2011 season at the Alapaha test site. We are excited about this selection, and look to accelerate testing. Figure 7 depicts growth of the dwarf selection in a nursery setting from October 2009 through October 2010. TO-1088 plants filled in nicely over the course of the year. Thus it appears the selection would make an attractive plant in containers as well. We have propagated this selection for further testing. Besides the selection TO-1088, we have several new selections and seedlings coming along with a variety of looks that also have the compact plant growth habit (Fig. 8).

In addition to the selections described above, we also have various new blueberry selections with a variety of home garden appeal. Two of our large fruited southern highbush selections are shown in Figure 9. These both tend to be intermediate compact plants with beautiful displays of fruit. Berries are highly flavored, and plants should make an overall attractive shrub. We also have interesting small fruited blueberry selections such as TO-1202 (Fig. 10) that make great home gardener types for those desiring a flavorful, but small berry. We continue to explore numerous selections similar to these for overall growth habit and adaptation to varied environments.

Finally, we are looking for various blueberry selections that have a good plant type, nice fruit during harvest, and attractive foliage for extended appeal. Figure 11 depicts several selections from 2011 showing good foliage color development. TH-663 (Fig. 11A) is a southern highbush with flavor ratings among the highest for our blueberries, and it has good fall color development. TH-889 (Fig. 11D) is a nice southern highbush selection with early ripening fruit, large berry size, sky blue berry color at maturity, and it too develops good fall leaf color. T-1223 and T-1226 (Fig. 11B and 11C) are two rabbiteye selections with notable silver-blue foliage.

In summary, we have a number of new ornamental blueberry selections under development at UGA. We continue to look for unique plant types and combinations of traits that appeal to consumers from both an edible and ornamental perspective. Our goal with this entire effort is to have consumers surround themselves with flavorful beauty. The effort will continue next year, with new selections yet to come.



Figure 1. Blue Suede™ sky blue berries and colorful fall foliage.

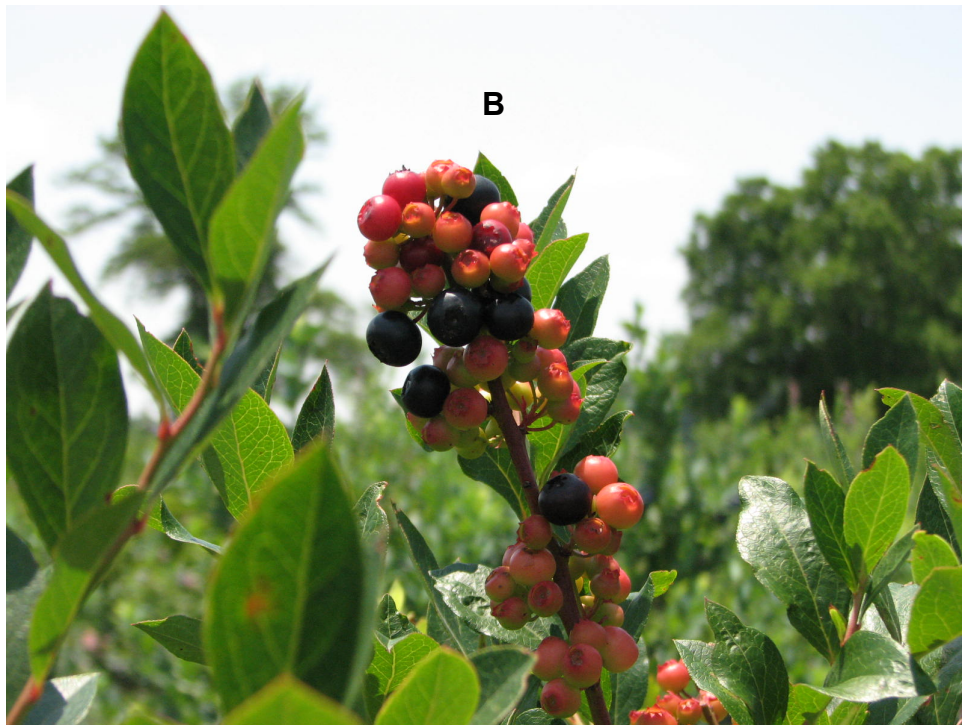


Figure 2. Summer Sunset[™] ornamental blueberry plant (A) and fruit (B) growing in south Georgia.



Figure 3. Several new ornamental blueberry selections with multi-colored berries.



Figure 4. Colorful ornamental blueberry TO-1098 at different stages in Alapaha, Ga. during 2011. Sequence is **A)** and **B)** Mid-May; **C)** and **D)** Mid-June.

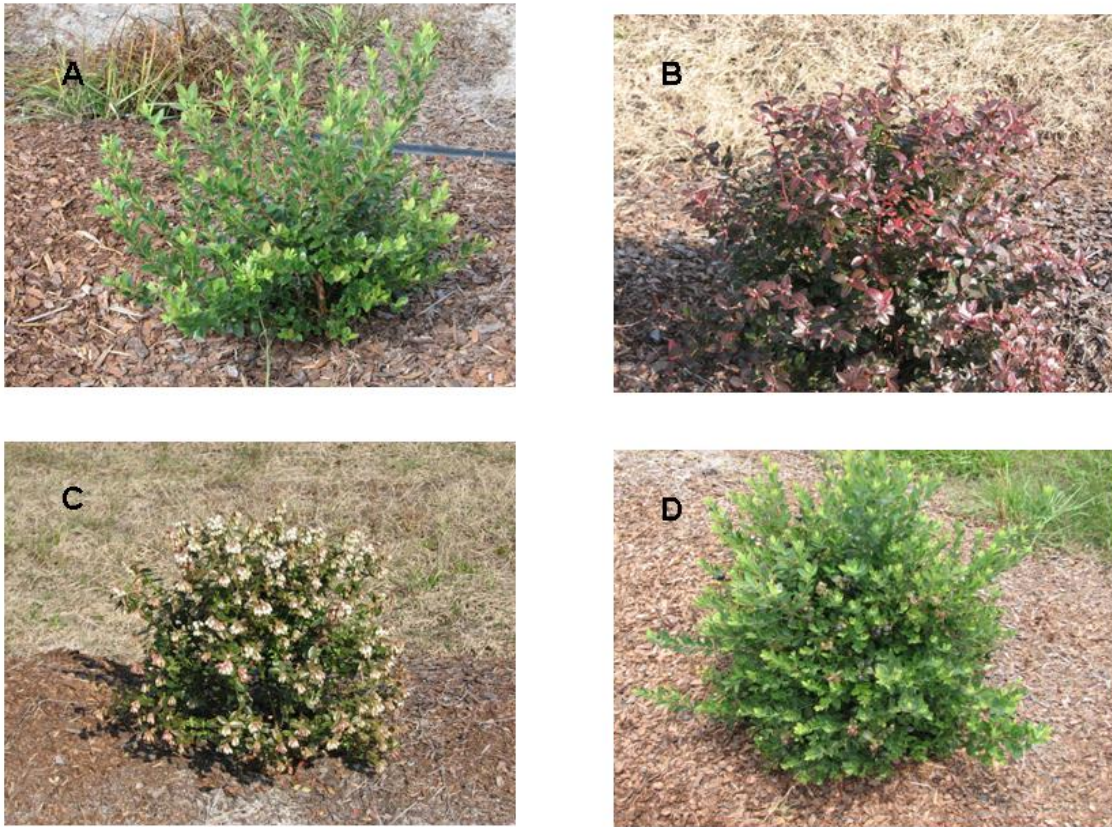


Figure 5. Dwarf ornamental blueberry TO-1088 development sequence at Alapaha, Ga. during 2009 and 2010. Sequence is **A)** August, **B)** January, **C)** March, and **D)** May.



Figure 6. Close-up of TO-1088 during flowering and fruiting during 2011 in south Georgia.



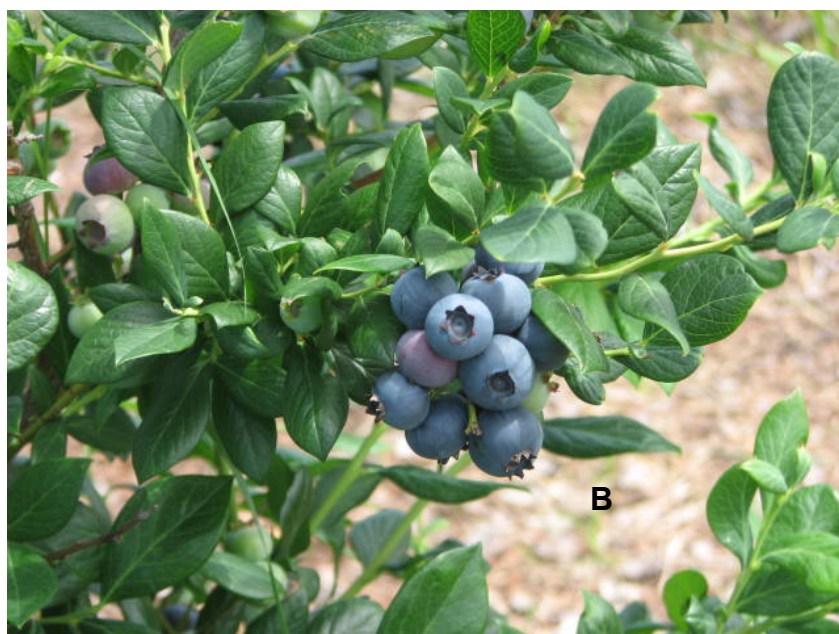
Figure 7. TO-1088 has good container growth and appeal too, as shown by these photos from the CANR test site in Fall 2010.



Figure 8. Additional dwarf and/or compact homeowner blueberry selections coming along.



A



B

Figure 9. Large fruited southern highbush blueberry selections for home gardeners. The selections are TH-681 (A) and TH-770 (B).



Figure 10. Blueberry selection TO-1202 (upper photo). Note miniature berries (bottom left) as compared to 'Titan' fruit (bottom right).



Figure 11. Colorful foliage for various 2011 ornamental selections, including TH-663 (A), TH-1236 (B), T-1223 (C) and TH-889 (D).