

# **Ornamental Blueberry Variety Development at The University of Georgia**

## ***A Progress Report for 2012***

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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 2012.

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 2013. 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 Sunset™ 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 2013.

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 2011 and 2012 has been TO-1076 (Fig. 4). The berries have a mixture of lime-green and red-orange fruit that ripen to a black pearl look. The ripening fruit contrast nicely with the shiny medium green foliage for much of the late spring and early summer. The plant structure for TO-1076 is considerably more upright than Summer Sunset™. Also, berries mature 5 to 8 days before Summer Sunset™, offering an earlier season multi-colored berry. Overall growth of the plant was very good in 2011 and 2012 at both the Griffin and Alapaha test sites and foliage has been very attractive, remaining clean from leaf spots and blemishes for most of the season.

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. One selection with a varied pedigree containing considerable *Vaccinium darrowii* is hybrid selection TO-1088. It 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 2012 season at the test sites. We continue to be excited about this selection, and look to accelerate testing. Figure 7 depicts the dwarf selection in a 7 gallon pot that took from April 2011 through October 2012 to grow from a small liner. TO-1088 plants filled in nicely. Thus it appears the selection would make an attractive plant in containers as well. We have propagated this selection for further testing.

A new dwarf southern highbush selection is shown in Figure 8. This is the first year of evaluation, but preliminary observations suggest this could be a very interesting ornamental for a patio type container blueberry. The plant is very compact and full, yet fills a container in reasonable time. Fruit are medium size, light blue, and have good

taste. We are rapidly advancing this selection into additional trials, looking to capture an audience wanting a great container grown dwarf blueberry suitable for low to mid chill regions, where the popular 'Tophat' variety does not perform satisfactorily. The selection has grown reasonably well during the first year of trials under field conditions as well.

In addition to the selections described above, we also have new blueberry selections with a variety of home garden appeal. We are developing blueberry selections that have a good plant type, nice fruit during harvest, and attractive foliage for extended appeal. T-1223 (Fig. 9) is a rabbiteye selection with notable silver-blue foliage that shows color much of the growing season. Fruit of T-1223 are also very light blue, and flavorful, and flowers have a great pink hue. T-1199 (Fig. 10) is a very compact rabbiteye that produces an abundance of medium-large berries on a smaller plant. Leaf does have some silver-blue color as well, and blooms are tinted with bold pink during flowering. These two rabbiteye selections could make good companions to give a diverse look in the landscape.

Additional selections offering home garden appeal are TH-889 (Fig. 11) TH-1089 (Fig. 12) and 03-04 (Fig. 13). TH-889 is a nice southern highbush selection that would be very suitable for home gardens. It has early ripening fruit, large berry size, ice blue berry color at maturity, and it develops good fall leaf color. TH-1089 is a very compact blueberry hybrid containing both *Vaccinium corymbosum* and *V. darowii* germplasm. Berries ripen in very uniform clusters that hold well on the bush for an extended period of time. The robust blue fruit clusters contrasts well with the blue-green foliage of the plant. For those gardeners looking for a more aggressive plant, selection 03-04 is a highly vigorous rabbiteye that offers an abundance of flavorful berries grown on beautiful twisting canes. The selection could make a nice screen plant, and should be adaptable to a variety of soil conditions. We continue to explore numerous selections similar to these for overall growth habit and adaptation to varied environments.

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 over the next few years, with additional 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.

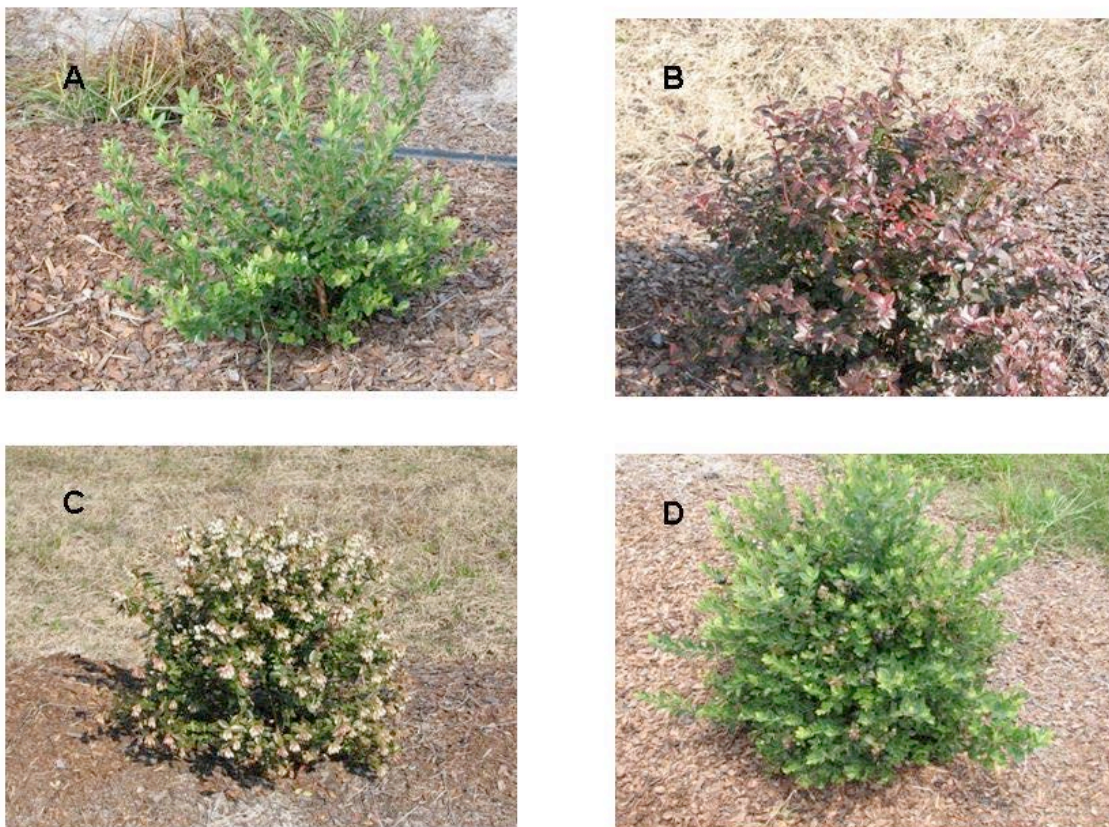


**Figure 3.** Several new ornamental blueberry selections with multi-colored berries during 2012.





**Figure 4.** Colorful ornamental blueberry TO-1076 at different stages in during 2012.



**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.





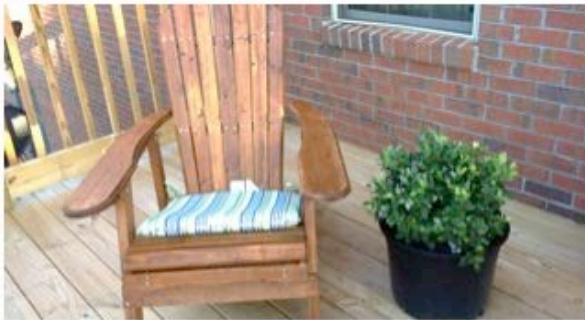
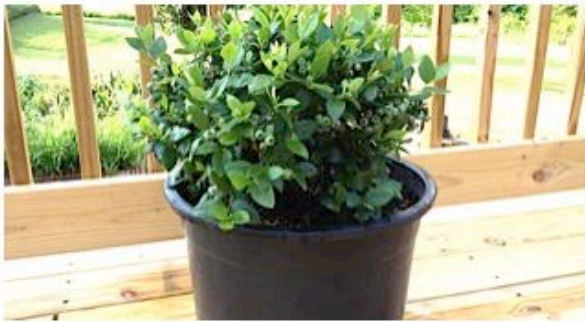
**Figure 6.** Close-up of TO-1088 during flowering (Griffin, GA) and fruiting (Alapaha, GA) during 2012.





**Figure 7.** Two year old TO-1088 grown in 7 gallon containers in Griffin 2012.





**Figure 8.** New dwarf southern highbush TO-1319.



**Figure 9.** Silver-blue foliage selection T-1223





**Figure 10.** Compact rabbiteye T-1199, 3 years old in field at Griffin and Alapaha during 2012.



**Figure 11.** Blueberry selection TH-889 with highly attractive fruit and good Fall color development.





**Figure 12.** Compact homeowner blueberry TH-1089 with very attractive fruit that holds well on plant.



**Figure 13.** Vigorous home-owner rabbiteye selection 03-04. Aggressive growing plant with beautiful twisting canes and loads of delicious fruit.