

Blueberry Cultivar Development at The University of Georgia

A Progress Report for 2011

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The UGA Blueberry Cultivar Development Program generates and evaluates numerous selections of southern highbush and rabbiteye blueberries each year. The UGA Blueberry Research Farm near Alapaha is the primary field evaluation site for new selections and advanced selections. Griffin is the primary site for high density seedling nurseries and it is a duplicate test site for growing certain selections and advanced selections. Additionally, some on-farm sites have been enlisted as advanced selection testing sites. Having these multiple sites provides considerable climatic and edaphic variability which enhances the cultivar development process.

General Overview of 2011

The 2011 growing season at Alapaha and Griffin were generally characterized by a good crop across most cultivars and selections. Chill hours (calculated from Oct. 1 thru Feb. 15) were 1206 for Alapaha and 1573 for Griffin, which were well above average for the two locations. In fact, the chill hours at Alapaha were near record, as average chill hours are in the range of 650 to 750 hours there. The extended cold period of 2011 resulted in later flowering and ripening times for both southern highbush and rabbiteye blueberries across much of the Southeast. Comprehensive flowering notes, cropping notes and fruit characteristic evaluations were taken for more than 400 selections of rabbiteye and southern highbush blueberries, as well as numerous cultivar standards at the test sites. Ratings were also made for some selections at on-farm test sites in 2011.

Performance of Southern Highbush Selections at Alapaha

The UGA Blueberry Breeding Program continues to aggressively generate and evaluate southern highbush plant material. Performance ratings of several of new selections grown at Alapaha under field conditions, along with some standard cultivars, are depicted in Table 1. These selections are generally less than 8 years old. Much of our effort with southern highbush has been aimed at developing selections that have suitable berry quality and have a high degree of plant vigor. We continue to make considerable advances toward these goals. In 2011, several selections had plant vigor ratings of 8.5 or higher (on a 1 to 10 scale). Notable selections with regards to plant vigor were TH-906, TH-939, TH-940, TH-982, TH-1007, TH-1008, TH-1111 and TH-1125. While some of these selections may not become cultivars, they will be used in our breeding program to enhance overall plant vigor of our southern highbush germplasm.

Early ripening fruit continues to appeal to many Georgia blueberry growers, and the UGA release 'Rebel' has become a standard for early ripening. 'Rebel' reached 50% ripe fruit by May 6 at Alapaha in 2011. 'Star' had 50% ripe fruit by May 7. Although there were no damaging freezes during 2011, as mentioned previously the prolonged cold in the spring caused later-than-normal ripening times for most varieties and selections. The earliest ripening selection was TH-819, having 50% ripe fruit on April 25. This selection has been the earliest ripening for the past 5 to 6 years; however it tends to flower early as well, which would require spring frost protection for successful production. We hope to release TH-819 this year. Other notable early ripening selections in 2011 were TH-944 and TH-982. These selections ripened several days ahead of 'Rebel' at the Alapaha test site.

The fruit development period (FDP) of blueberries, defined as the days from flowering to ripening, can be very important. A short FDP can result in later flowering, which helps to avoid pressure from spring freezing temperatures, while achieving early ripening dates which can bring higher market prices. Notable selections with late flowering and early ripening were TH-905, TH-948, and TH-1124. These selections flowered several days after Star and Rebel, and ripened as early as the standard varieties. We continue to try and develop southern highbush varieties with short FDP, and these and other selections will be used in our breeding effort to improve this trait.

Berry size is important, and is especially attractive for improving efficiency of hand harvesting. Currently, 'Emerald' is the standard cultivar grown in Georgia with the largest berry size, although the recent UGA releases 'Camellia' and 'Suziblue' also have impressive berry size. Several selections grown at Alapaha during 2011 had berry size as large or larger than 'Emerald'. These included TH-896, TH-920, TH-931, TH-944, TH-948, TH-1008, TH-1009, and TH-1111. Many of these large fruited selections also had other desirable traits such as good firmness and/or flavor. We have propagated several of these selections for advanced testing, and we will continue to evaluate these over the next few years for yield consistency and overall long term plant health.

While flavor is subjective, we are trying to consider this more in our evaluations. The selections TH-888, TH-1111, TH-1122, and TH-1124 were all rated to have very good flavor in Alapaha. This added benefit could make these selections desirable as cultivars if they hold up to continued testing; especially, TH-1122 and TH-1124, since they also have very good berry firmness.

We try to take yield on a few selections and standard cultivars each year, but are limited by labor largely. Figure 1 depicts yield data for several southern highbush standards and selections in Alapaha during 2011. TH-905 was impressive for its rapid, early ripening and high yields. TH-940 and TH-917 were both notable for high yields, although they do ripen a few days after 'Star' at the South Georgia site.

Table 1. Ratings of some fruit and plant characteristics of field grown southern highbush blueberry cultivars and selections from Alapaha during 2011.

Selection or Variety	Date of 50% Flowering	Date of 50% Ripening	Berry Size	Berry Scar	Berry Color	Berry Firmness	Berry Flavor	Crop Load	Plant vigor
Camellia	Mar. 12	May 11	8.5	7.0	8.5	7.8	7.5	6.0	9.0
Emerald	Feb. 25	May 8	8.5	6.8	7.5	7.0	6.8	6.0	7.5
Rebel	Mar. 3	May 6	7.2	7.0	7.0	7.5	6.5	8.0	8.0
Star	Mar. 7	May 7	7.0	7.0	7.0	7.0	7.0	7.5	8.0
Suziblue	Mar. 6	May 9	8.3	7.5	7.0	8.5	7.3	8.0	8.0
TH-819	Feb. 27	April 25	7.0	7.5	7.5	7.5	7.5	8.0	8.5
TH-888	Mar. 21	May 9	7.0	6.8	7.5	7.0	8.5	8.0	7.3
TH-889	Mar. 21	May 15	7.8	7.5	9.3	7.5	8.0	7.0	8.0
TH-896	Mar. 11	May 11	8.3	8.0	8.0	8.0	7.0	7.0	7.5
TH-904	Mar. 17	May 10	8.0	7.0	8.0	8.3	8.3	7.0	7.5
TH-905	Mar. 13	May 8	7.5	7.5	8.0	8.0	7.8	8.0	8.5
TH-906	Mar. 8	May 9	7.5	7.5	8.0	7.5	8.3	5.5	9.3
TH-917	Mar. 11	May 14	7.5	7.5	7.5	8.0	7.3	7.0	8.5
TH-920	Mar. 17	May 8	8.8	8.0	8.5	7.0	7.5	4.5	7.5
TH-921	Mar. 15	May 5	7.0	7.5	7.5	7.8	7.0	9.0	8.5
TH-931	Mar. 16	May 18	8.5	8.8	8.3	8.0	7.3	6.5	7.0
TH-938	Mar. 8	May 5	7.5	7.0	9.0	8.0	8.3	8.0	8.5
TH-939	Mar. 17	May 13	8.3	7.3	8.0	7.5	8.0	8.5	9.0
TH-940	Mar. 12	May 19	8.0	7.0	7.8	7.0	7.3	8.0	10.0
TH-944	Mar. 3	April 29	8.5	7.0	7.0	7.0	7.5	9.0	7.5
TH-948	Mar. 12	May 7	8.3	7.5	8.0	7.5	7.5	6.0	8.5
TH-982	Mar. 6	April 30	7.5	7.5	7.8	7.5	8.5	8.0	9.5
TH-1007	Mar. 1	May 6	8.0	6.8	7.0	7.5	8.0	8.0	9.0
TH-1008	Feb. 28	May 13	8.5	7.3	8.0	8.0	7.8	9.0	9.0
TH-1009	Mar. 10	May 6	9.0	7.5	9.5	7.5	7.5	7.0	7.0
TH-1111	Mar. 7	May 1	8.8	7.0	7.5	8.5	9.0	6.0	10.0
TH-1122	Mar. 14	May 14	8.0	7.3	7.0	8.5	8.8	8.0	7.5
TH-1124	Mar. 18	May 3	7.5	7.5	7.5	9.3	8.8	3.5	8.0
TH-1125	Mar. 6	May 1	8.3	7.5	8.0	9.0	8.0	7.5	10.0

Performance of Southern Highbush Selections at Griffin

All of the southern highbush plants growing in Griffin are 8 years old or less. While the test site is not considered very suitable for southern highbush production, we have been able to successfully grow many of our selections in the red Piedmont soil with pine bark mulch and irrigation. Table 2 lists data for several of the highbush selections in Griffin. Most of these were evaluated at Alapaha as well. Selections that demonstrated outstanding plant vigor at the Griffin site included TH-888, TH-906, TH-921, TH-938, TH-940, TH-948, TH-1111, TH-1122, TH-1124, and TH-1125. Several of these selections also had very good plant vigor at Alapaha, suggesting a wide range of soil adaptation.

Berry size of 'Emerald', 'Camellia', and 'Suziblue' were largest among the standard cultivars in Griffin during 2011. Several newer selections also had very large berry size. These included TH-896, TH-905, TH-920, TH-931, and TH-948. Some of these selections also had large berry size at the Alapaha test site, suggesting those selections have a good tendency for sizing of fruit across environments. These large fruited selections will be used in the breeding program for improving overall berry size and quality of the germplasm.

In Griffin during 2011, berry firmness was measured for several southern highbush selections using a FirmTech II firmness tester. This instrument basically records the force (g) required to deflect or compress berries a certain amount (measured in mm). The higher the units (g/mm), the more firm berries are. The standard instrument settings were 50 g minimum and 250 g maximum force. Table 3 depicts firmness values at harvest (first 25% of ripe fruit) for several cultivars and selections, along with average berry weights of samples. 'Suziblue' continues to be a firm standard, and it has very good berry weight. Selections TH-889, TH-904, TH-938, TH-1122, and TH-1124 all had firmness values greater than 210 which is considered very firm. Again, berry weight measurements indicated some very large fruited selections, including TH-896, TH-898, TH-925, TH-1124, and TH-1130. TH-931 was most impressive, with an average weight per berry over 3.2 g. This was the largest berry in our trials this year in Griffin.

With regards to flavor in Griffin, the selections TH-888, TH-1105, TH-1111, and TH-1122 were all rated to have very good flavor. Three of these also had superior flavor ratings in Alapaha.

Yields for some southern highbush selections and standards are shown for Griffin in Figure 2. At this location, TH-931 was noteworthy for high yield. Other selections were similar in yields for the most part, with the exception of TH-940, which had the lowest yield in Griffin. The data, when compared with results from Alapaha, indicate how yields can vary over locations.

Table 2. Ratings of some fruit and plant characteristics of field grown southern highbush blueberry cultivars and selections from Griffin during 2011.

Selection or Variety	Date of 50% Flowering	Date of 50% Ripening	Berry Size	Berry Scar	Berry Color	Berry Firmness	Berry Flavor	Crop Load	Plant vigor
Camellia	Mar. 17	May 25	8.0	7.0	8.0	7.5	7.0	8.0	9.5
Emerald	Mar. 3	May 26	8.3	7.0	7.5	6.8	7.0	6.0	7.5
Rebel	Mar. 13	May 11	7.3	7.3	7.0	7.5	6.5	6.0	5.5
Star	Mar. 14	May 23	7.0	7.0	7.0	7.5	7.5	9.0	8.5
Suziblue	Mar. 14	May 14	8.3	7.5	7.0	7.8	7.0	7.5	7.5
TH-888	Mar. 22	May 17	7.5	7.5	7.5	8.0	9.3	5.5	9.0
TH-889	Mar. 16	May 26	7.5	7.0	9.0	8.5	8.0	7.0	8.0
TH-896	Mar. 15	May 28	8.8	8.0	8.5	8.5	7.5	7.3	8.0
TH-904	Mar. 20	May 23	8.0	7.3	8.5	8.5	8.0	6.0	7.0
TH-905	Mar. 19	May 16	8.3	7.3	8.5	8.5	7.0	7.0	8.0
TH-906	Mar. 17	May 26	7.5	7.0	7.8	7.5	8.0	7.3	8.8
TH-917	Mar. 18	May 23	7.5	7.5	8.0	8.0	7.8	6.0	8.0
TH-920	Mar. 20	May 26	8.5	7.5	9.0	6.5	7.5	7.5	7.0
TH-921	Mar. 18	May 25	6.5	7.5	7.5	7.0	6.8	8.0	9.0
TH-931	Mar. 18	May 25	8.8	7.0	9.0	7.5	7.5	6.0	7.5
TH-938	Mar. 17	May 17	7.5	7.5	8.3	7.0	7.8	6.0	8.5
TH-939	Mar. 17	May 22	7.5	7.0	8.0	8.0	7.3	6.0	7.0
TH-940	Mar. 20	May 27	7.5	6.8	8.5	7.5	7.3	8.5	8.5
TH-944	Mar. 10	May 9	7.5	7.0	7.3	7.3	7.5	7.0	8.0
TH-948	Mar. 19	May 17	8.3	7.0	7.5	7.0	7.5	6.0	8.5
TH-1091	Mar. 10	May 12	7.3	8.0	7.5	7.5	7.5	8.0	8.0
TH-1105	Mar. 21	May 24	6.8	7.5	7.5	8.0	8.8	6.0	8.0
TH-1111	Mar. 15	May 15	8.0	7.5	7.5	8.5	8.5	6.0	10.0
TH-1122	Mar. 16	May 27	7.0	7.3	7.0	8.8	8.5	8.0	9.5
TH-1124	Mar. 16	May 14	7.8	8.0	8.0	9.3	7.5	5.0	9.0
TH-1125	Mar. 12	May 12	7.8	8.0	7.8	8.5	7.8	8.0	10.0
TH-1130	Mar. 10	May 12	7.5	7.5	7.5	8.5	7.8	5.0	8.5

Table 3. Berry weight and firmness for several southern highbush blueberry cultivars and selections grown in Griffin, GA during 2011. Firmness was measured using a FirmTech II device.

Selection or cultivar	Berry weight (g)	Berry firmness (g/mm)
Camellia	1.97	166
Rebel	1.06	171
Southern Splendour	2.00	207
Star	1.20	206
Suziblue	2.78	224
TH-888	1.66	180
TH-889	1.82	218
TH-896	2.27	200
TH-898	2.36	198
TH-904	2.02	214
TH-905	2.06	175
TH-906	1.53	187
TH-917	1.80	173
TH-919	1.52	200
TH-920	1.94	164
TH-921	1.47	190
TH-923	1.90	167
TH-925	2.31	158
TH-931	3.29	196
TH-934	1.98	196
TH-938	1.65	217
TH-939	1.92	198
TH-940	2.03	181
TH-948	2.08	188
TH-1105	1.68	188
TH-1111	2.15	191
TH-1113	2.13	204
TH-1122	1.80	221
TH-1124	2.27	221
TH-1125	2.03	187
TH-1130	2.42	192

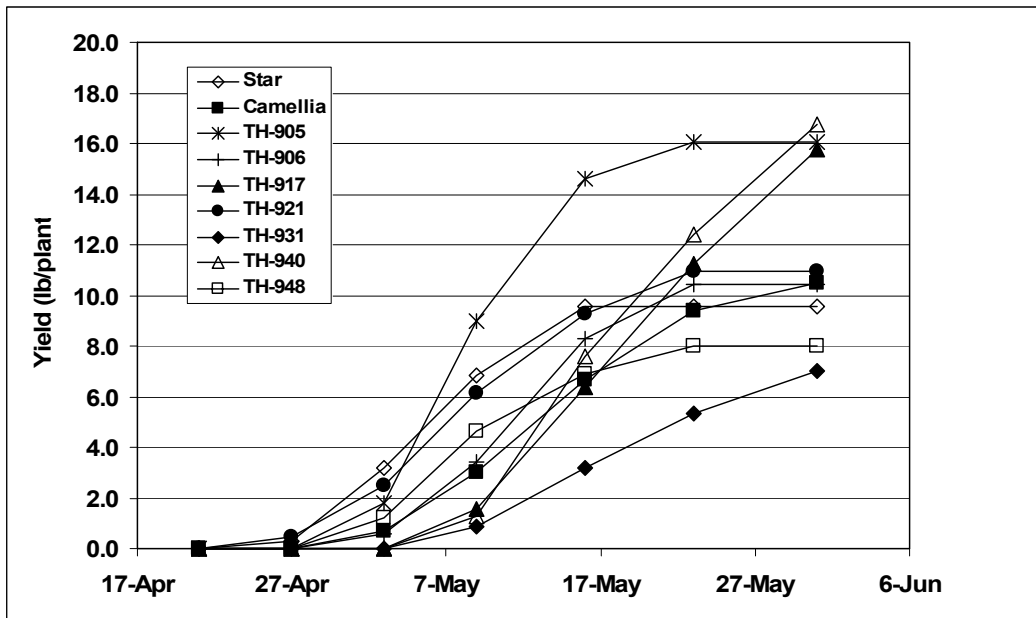


Figure 1. Yield of southern highbush selections and standard varieties at Alapaha for 2011.

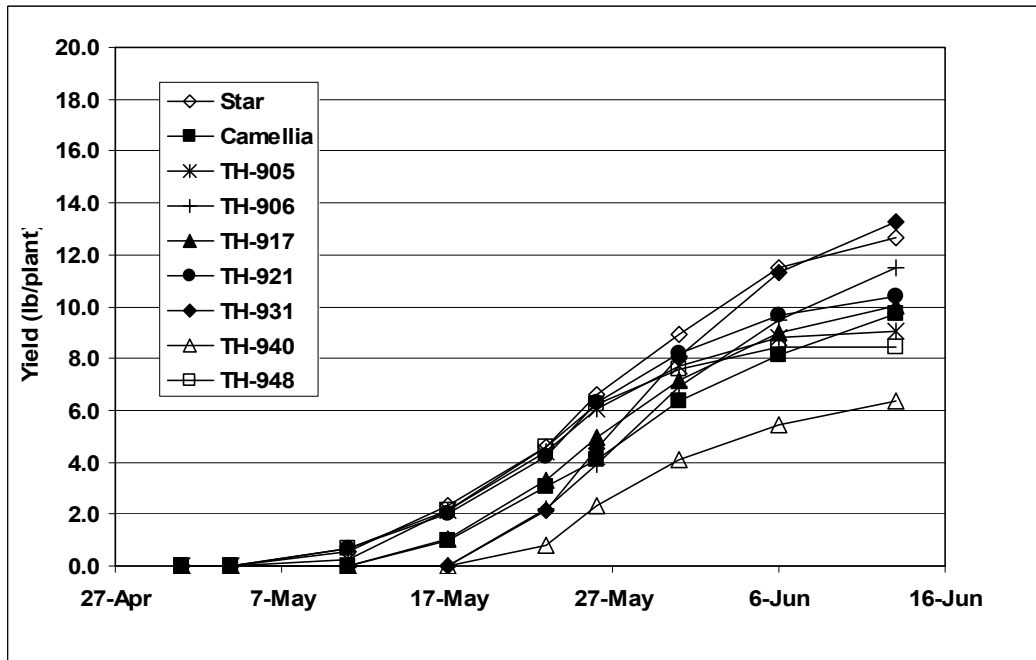


Figure 2. Yield of southern highbush selections and standard varieties at Griffin for 2011.

Performance of Rabbiteye Selections at Alapaha

As with southern highbush, the prolonged cold period in the early spring caused later ripening for many rabbiteye varieties and selections. Detailed data on plant and berry attributes were collected for various rabbiteye selections in 2011 at Alapaha. Table 4 depicts data for some of the more promising selections along with observations for some cultivar standards. We continue to be interested in early ripening rabbiteye. 'Alapaha' (UGA 2001 release) ripened June 2. 'Alapaha' fruit tend to be smaller than we would like, but ripening is concentrated, and yields continue to be good. 'Vernon' (UGA 2004 release) was 50% ripe by May 30, and it also has good berry size. The most recent release 'Titan' (UGA 2010 release) ripened at a similar time as 'Vernon'. The new variety continues to have very firm, large berries. All three of these cultivars continue to out-perform the older early season standards 'Climax' and 'Premier'. There were several notable rabbiteye selections that had early 50% ripe dates in Alapaha. These included 03-04 (May 28), T-957 (May 26), T-1069 (May 28), T-1095 (May 23), and T-1101 (May 24). The most notable early ripening rabbiteye was T-1070, which had 50% ripe fruit May 16. This was the first year of observation on this new selection, but we will definitely be keeping our eyes on this one. The plant and berry attributes are all around outstanding in the early trials.

In addition to early ripening selections, we have been looking for late ripening, high quality rabbiteye selections as well. 'Ochlockonee' (UGA 2002 release) is the late season standard, and had 50% ripe fruit by June 27. Notable late ripening selections were T-1083, T-1084, and T-1099, all having ripening times similar too or later than 'Ochlockonee', but also generally having a larger berry size. T-1099 was a very late variety, with a 50% ripening date of July 3. This selection also had a very good scar and berry firmness. We have propagated these new selections for advanced selection trials.

Berry size in general suffered for rabbiteye selections at Alapaha during 2011 due to an extended period of drought as berries ripened (early June thru July). However, the new release 'Titan' had very good berry size, and a new selection T-1101 had very large berries as well. Both of these large fruited rabbiteyes have very firm fruit also.

Figures 3 shows yields for some rabbiteye selections and standards from plants at the Alapaha Research Farm for 2011. These plants were only 5 years old (established Fall 2006). Nearly all those harvested had very high yields, with most reaching 25 lbs per plant. T-957 was noteworthy for its early, high yielding crop. We will continue to monitor this as a "near-future" release of an early ripening rabbiteye. We continue to search for a 'Brightwell' season variety, and T-968 could be a candidate. In south Georgia it has very good yields, and fruit quality was generally better than 'Brightwell'.

Table 4. Ratings of some fruit and plant characteristics of field grown rabbiteye blueberry cultivars and selections from Alapaha during 2011.

Selection or Variety	Date of 50% Flowering	Date of 50% Ripening	Berry Size	Berry Scar	Berry Color	Berry Firmness	Berry Flavor	Crop Load	Plant vigor
Alapaha	Mar. 20	June 2	6.0	7.3	6.8	7.0	7.5	8.0	8.5
Brightwell	Mar. 20	June 17	6.5	7.3	7.5	7.3	6.5	9.0	10.0
Climax	Mar. 16	May 31	7.5	7.5	7.5	7.5	6.5	6.0	8.0
Ochlockonee	Mar. 23	June 27	6.5	8.5	7.3	7.3	7.5	8.0	9.3
Powderblue	Mar. 19	June 19	6.5	8.0	8.0	6.5	7.0	8.3	8.5
Premier	Mar. 15	June 3	7.0	7.0	7.5	6.8	7.0	4.0	9.0
Titan	Mar. 19	May 30	8.8	7.5	7.0	9.0	6.8	6.0	10.0
Vernon	Mar. 17	May 30	8.0	7.5	7.3	8.0	7.3	6.0	9.5
03-04	Mar. 13	May 28	7.5	7.0	7.5	7.5	8.3	5.0	10.0
T-957	Mar. 13	May 26	7.8	7.5	6.8	8.0	8.0	7.0	8.5
T-961	Mar. 14	June 2	7.5	7.5	7.5	7.5	7.3	9.0	9.3
T-965	Mar. 10	June 8	7.5	7.5	6.8	7.8	7.8	9.3	8.0
T-968	Mar. 17	June 12	7.5	7.5	7.5	7.0	7.0	7.0	8.5
T-1069	Mar. 20	May 28	7.8	8.5	6.8	7.5	8.0	5.0	8.5
T-1070	Mar. 19	May 16	7.8	8.8	8.0	8.0	8.5	5.0	8.0
T-1071	Mar. 23	June 2	7.3	7.5	7.5	7.0	6.8	5.0	8.0
T-1083	Mar. 22	June 29	7.3	8.5	8.0	7.5	7.5	6.0	8.0
T-1084	Mar. 20	June 27	7.5	8.3	7.3	7.3	7.3	6.0	8.0
T-1094	Mar. 21	June 10	7.0	8.3	8.3	6.5	6.5	5.0	10.0
T-1095	Mar. 16	May 23	7.5	7.5	7.0	7.5	7.3	2.5	9.0
T-1099	Mar. 24	July 3	7.8	9.0	7.0	8.5	7.5	5.0	9.0
T-1101	Mar. 18	May 24	9.3	8.0	8.0	8.0	7.0	7.0	9.0
T-1180	Mar. 14	June 4	7.5	8.0	8.5	8.0	7.5	4.0	7.5
T-1207	Mar. 25	June 18	7.8	7.0	8.0	8.5	7.0	7.0	8.0
T-1220	Mar. 25	June 10	7.8	7.3	9.0	8.5	8.0	6.0	7.0

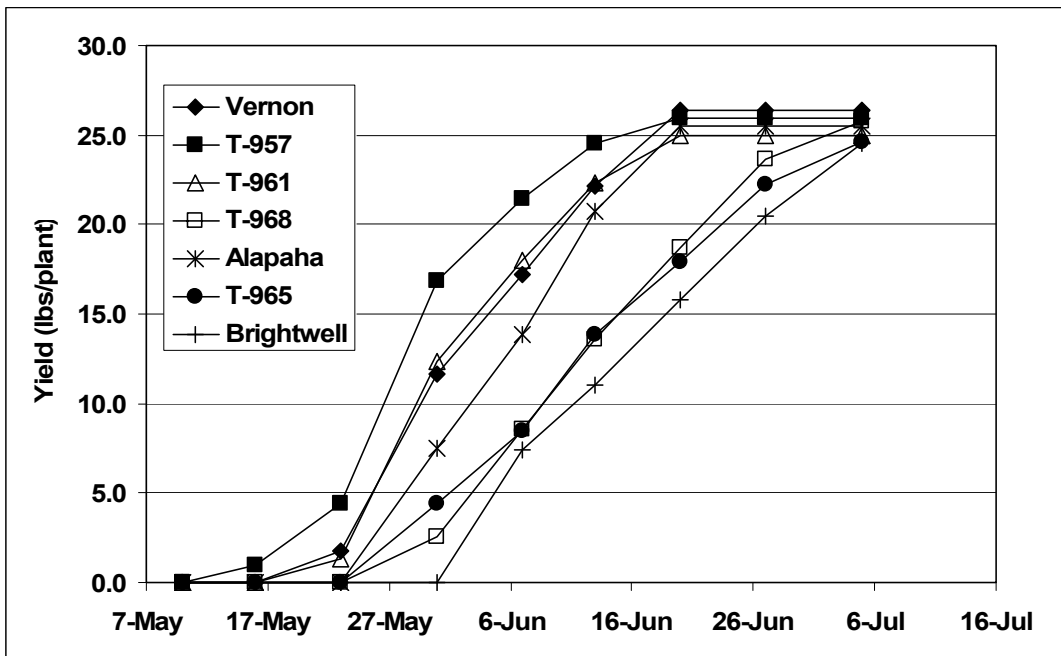


Figure 3. Yield of rabbiteye selections and standard varieties at Alapaha for 2011.

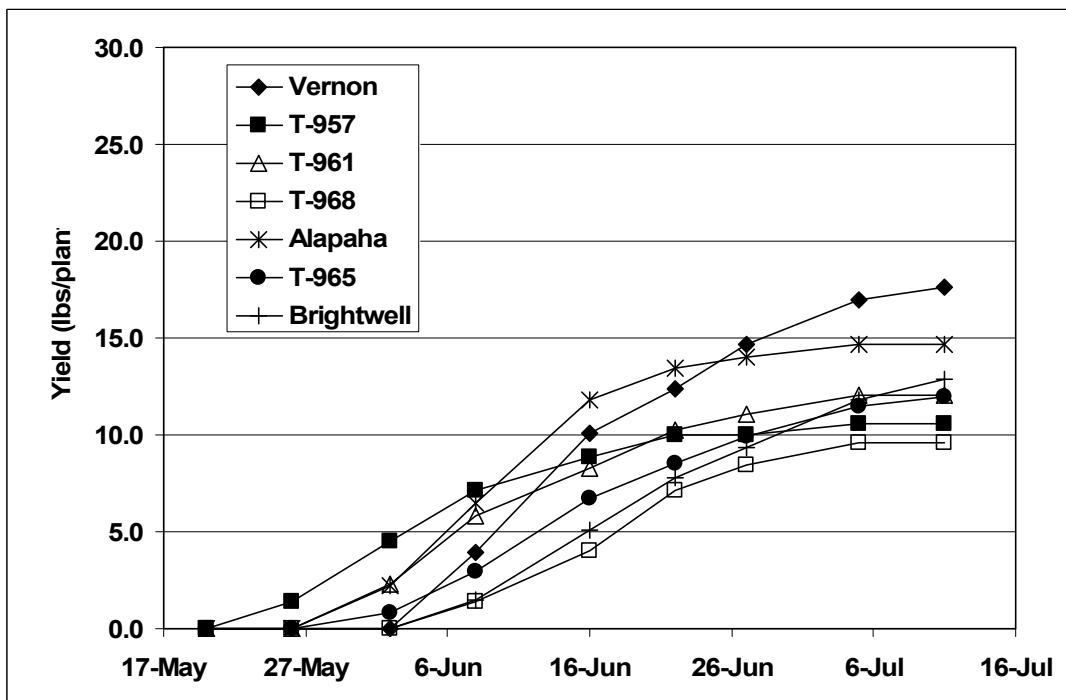


Figure 4. Yield of rabbiteye selections and standard varieties at Griffin for 2011.

Performance of Rabbiteye Selections at Griffin

Many of the rabbiteye selections listed above for the Alapaha location also performed well at the Griffin test site in 2011 (Tables 5 and 6). All plants at the Griffin test site are young (7 years old or less), and all plants are irrigated and mulched with bark. With regards to ripening times, again, the early season UGA releases ‘Alapaha’ and ‘Vernon’ continued to perform well. The selections 03-04, T-957, T-1070, and T-1180 were noteworthy early ripening rabbiteyes in Griffin, all ripening before ‘Alapaha’ and ‘Vernon’. For mid-season rabbiteyes, ‘Brightwell’ ripening date was June 23, and several selections with better quality fruit were in this ripening time window. These include T-968, T-1071, T-1094, 1207, and T-1220. Interestingly, T-1101 was mid-season in Griffin, while it was very early season in Alapaha. For late ripening, ‘Ochlockonee’ had 50% ripening June 30, while the selections T-1095, T-1096, and T-1099 all ripened a week or more later. We will continue to evaluate these selections at both Griffin and Alapaha, as well as at other locations.

In Griffin, most all of the rabbiteyes measured had good to very good firmness as measured with the FirmTech 2 device (Table 5). T-968 was notable for its large berry size as compared to ‘Brightwell’. Yield data for these same selections (Fig. 4) showed ‘Alapaha’ and ‘Vernon’ being the highest yielding in Griffin, while the remaining selections had similar total yields. T-957 was the earliest ripening selection harvested, although yields were less than ‘Alapaha’ and ‘Vernon’.

Table 5. Berry weight and firmness of several rabbiteye blueberry selections in Griffin, GA during 2011.

Selection	Average berry Weight (g)	Berry firmness (g/mm)
Alapaha	1.44	191
Brightwell	1.45	225
Vernon	2.04	196
T-957	1.72	205
T-961	2.11	200
T-965	2.30	208
T-968	2.08	218

Table 6. Ratings of some fruit and plant characteristics of field grown rabbiteye blueberry cultivars and selections from Griffin during 2011.

Selection or Variety	Date of 50% Flowering	Date of 50% Ripening	Berry Size	Berry Scar	Berry Color	Berry Firmness	Berry Flavor	Crop Load	Plant vigor
Alapaha	Mar. 26	June 8	6.5	7.5	7.0	7.0	8.0	8.0	8.0
Brightwell	Mar. 26	June 23	6.5	7.5	7.5	7.0	6.5	8.0	8.5
Climax	Mar. 25	June 17	6.5	7.3	7.5	8.0	6.8	7.0	7.3
Ochlockonee	April 3	June 30	7.0	7.5	7.5	7.0	7.3	7.5	7.5
Powderblue	Mar. 29	June 21	6.0	8.0	8.5	6.5	6.5	6.0	8.5
Premier	Mar. 22	June 8	7.0	7.5	7.5	6.8	7.0	6.0	7.0
Titan	Mar. 28	June 12	9.0	8.5	7.5	9.0	7.0	7.0	9.5
Vernon	Mar. 29	June 11	7.8	7.5	7.5	8.0	7.0	7.0	8.5
03-04	Mar. 25	June 3	7.5	7.8	7.5	7.5	7.8	6.0	10.0
T-957	Mar. 22	June 2	8.0	8.0	7.0	8.0	8.0	7.5	7.5
T-961	Mar. 26	June 7	8.0	7.5	7.5	8.0	7.0	6.5	8.5
T-965	Mar. 18	June 9	8.0	7.0	6.8	8.3	7.5	7.5	7.5
T-968	Mar. 26	June 21	7.5	8.0	8.0	7.5	7.0	3.0	6.8
T-1069	Mar. 29	June 10	7.3	7.5	7.5	7.0	7.3	4.5	7.0
T-1070	Mar. 31	June 6	7.5	7.5	7.3	8.0	8.0	7.0	7.5
T-1071	Mar. 30	June 19	7.5	7.5	8.5	7.3	7.3	7.0	8.0
T-1083	Mar. 29	July 4	6.0	8.0	8.5	7.0	7.3	8.3	7.0
T-1084	Mar. 26	July 2	6.5	7.5	7.5	7.0	6.8	8.0	7.5
T-1094	Mar. 22	June 20	7.5	8.5	8.8	7.5	7.5	4.0	10.0
T-1095	Mar. 25	June 7	7.5	7.5	7.5	7.3	7.3	5.0	7.5
T-1096	Mar. 30	July 7	7.8	7.0	7.0	7.5	8.0	7.5	9.3
T-1099	April 3	July 8	7.8	8.0	7.5	8.0	7.0	8.0	9.0
T-1101	Mar. 21	June 21	8.3	7.5	8.0	7.5	7.5	7.5	7.0
T-1180	Mar. 20	June 6	8.0	8.5	8.5	7.3	7.8	3.5	7.5
T-1207	April 1	June 26	8.0	8.0	9.0	7.5	7.5	7.0	8.5
T-1220	April 1	June 19	8.5	8.0	10.0	7.8	8.0	7.0	9.0

Goals of The UGA Blueberry Cultivar Development Program for 2012

Plans for the year 2012 are to continue aggressively evaluating seedlings, selections, and advanced selections of blueberries for a wide range of uses, including commercial, home owner, and ornamental purposes. More than 50 new crosses were made during 2011, and 3000 to 4000 seedlings will be generated from these crosses in 2012. These seedlings will be planted in a seedling nursery during the summer of 2012 to be grown for future evaluations. More than 3500 seedlings were planted in 2010, and more than 4000 new seedlings were planted in a seedling nursery during 2011. These seedlings will be screened after 3 years for fruit and plant characteristics suitable for both commercial and ornamental production. The most promising seedlings will be identified as selections for further evaluation (estimated to be 3 to 5% of total seedlings). In 2010, 200 new selections (a mixture of commercial and ornamental material) were made from seedlings of crosses made by the UGA program in the last 3 years. These were propagated, and multiple plants will be established at Alapaha and Griffin in 2012 for further evaluation. These new selections will be added to the several hundred selections currently growing at these locations that will be evaluated during the coming years for possible designation as advanced selections.

In 2010 and 2011, several selections were identified as advanced selections and were propagated. These will be further evaluated in the coming years for potential as cultivars, and some of the advanced selections will be distributed to cooperators to assist in the final evaluation process. Data from these trials will be collected beginning in 2012 and will continue through 2017. Evaluations of the commercial advanced selections will include fruit characteristics, plant growth characteristics, flowering times, and yields (when possible).

In 2008-2010 we established southern highbush advanced selection plots at the Alapaha Farm to evaluate their potential to be mechanically harvested for the commercial production industry. This is a great need for Georgia growers since hand-harvest labor issues are becoming more cumbersome for the industry. These specialty advanced selection trial blocks will continue to be evaluated in 2012 and will take up to 5 years to complete.