

Alternative Specialty Fruit Crop Research Trials at Wye Research and Education Center



UNIVERSITY OF
MARYLAND
EXTENSION

Alternative Specialty Crops are plants which provide higher profitability per acre compared to traditional row crops. At Wye Research and Education Center (WyeREC), a variety of high value/marketable plants are being trialed for production in Maryland. An added benefit in production is finding plants which require low management inputs like fertilizers or pesticides.

Aronia

Aronia is a small berry-like fruit with one of the highest anthocyanin (anti-oxidant) contents of any fresh fruit. Fruits high in anti-oxidants have been shown to help with issues including gastro-intestinal and cardio-vascular health, making aronia a potentially marketable “super fruit” crop. At WyeREC, a research orchard has been established to investigate fertilizer requirements and IPM management strategies in the mid-Atlantic region. Aronia are hardy plants which grow from 7 to 8 feet high and up to 4 feet wide. They produce 15 to 20 lb of fruit per plant when mature. Aronia typically flower in late April and fruit are harvested in mid to late August.



Goldenberries

In the tomato family, ground cherries or goldenberries are small sweet berries in a natural wrapper. Goldenberries are touted to be another super-fruit, high in antioxidants. They are relatively easy to harvest and fetch a high price at farm markets and grocery stores, selling around \$1 or more an ounce. At WyeREC, several varieties are being trialed in high-tunnel production for increased sales-window opportunities.



Haskap

Also known as honey-berry, this completely new and interesting fruit from a bush in the honeysuckle family is being tested here in Maryland. Not much cultural information about haskap is available. It is being grown in the northern mid-west States and provinces of Canada. Some breeding research has been done in Oregon and at WyeREC, four varieties are being trialed for Maryland production. Like aronia and goldenberry, haskap has high antioxidant content and might be marketable as unusual high-value crop. Like many blueberry varieties, they are harvested in late spring/early summer.



Southern Blueberry Species

Three southern varieties of blueberries are being trialed at WyeREC. Southern varieties including hybrids of Rabbiteye and Southern Highbush tend to need less irrigation, tolerate warmer temperatures and may be an ideal crop when considering weather related changes with hotter, drier summers predicted to be the norm for the Mid-Atlantic region. At WyeREC, bushes were planted in September of 2015. Soil prepped to approximately 6% OM and a pH of 5.

Sweetheart

A new Northern/Southern Highbush hybrid, this self-pollinating variety offers two yields, a heavy late spring and a light late summer harvest. Mature bushes are said to offer over 15 lb of large and sweet berries.

Zone Range	4 – 8
Ripens/Harvest	Heavy first crop late May to early June, lighter second crop August
Years to Bear	2 - 3
Soil Composition	Loamy
Soil Moisture	Well Drained
Soil pH Level	4.5 - 5.5



O'Neal

A Southern Highbush variety, this plant has one of the best tasting berries of the Southern Highbush varieties. Ripens in mid-summer. If pollinated with other Southern Highbush varieties, larger yields are expected.

Zone Range	5 - 9
Ripens/Harvest	mid-June to early July
Years to Bear	2 - 3
Soil Composition	Loamy
Soil Moisture	Well Drained
Soil pH Level	4.5 - 5.5



Brightwell

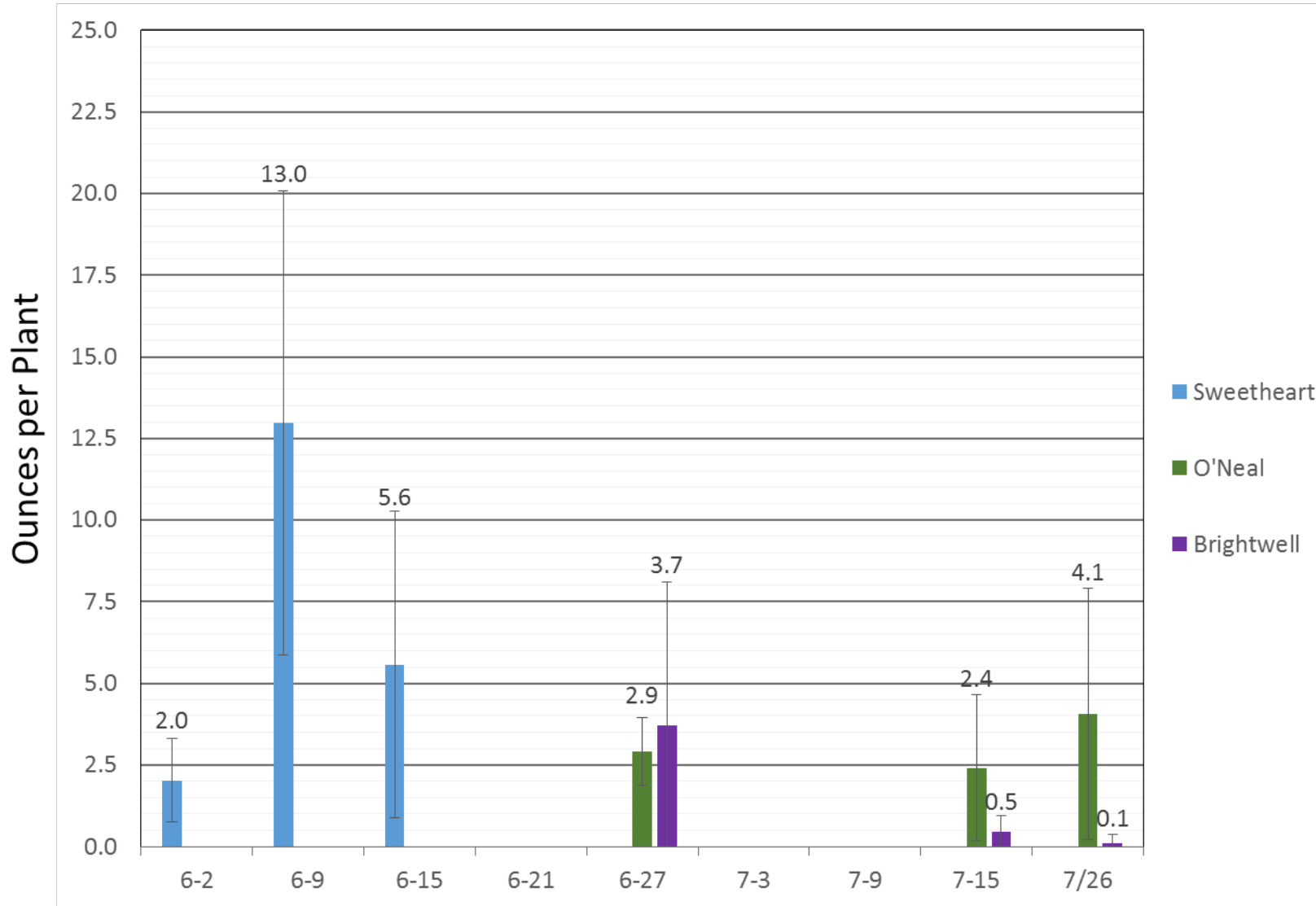
A hybrid variety of the Rabbiteye blueberry, the Brightwell plant is known for its hardiness. Has resistance to disease and insects, and grows to its full height in 7-8 years at 10-12 feet tall.

Zone Range	7 - 9
Ripens/Harvest	mid-June to early July
Years to Bear	2 - 3
Soil Composition	Loamy
Soil Moisture	Well Drained
Soil pH Level	4.5 - 5.5

* Should cross pollinate with another rabbiteye like *Austin* or *Premier*. Ripens over a short period. Brightwell is subject to over-cropping and return bloom reduced if the bushes are not given good post-harvest care and management. Septoria and Gleosporium leaf spot diseases can be a problem on some sites and postharvest fungicide applications may be necessary to aid in leaf retention.



2017 WyeREC Southern Blueberry Trials Average Weekly Blueberry Yield in Ounces



Weekly Harvest Date Starting June 2nd (1) and Ending July 26th (9)

Figure 1. Second season, first bearing, *Sweetheart* yields started June 2nd and ended June 15th totaling an average of **20.6 oz** per plant. *O'Neal* yields started June 27th and ended July 26th totaling an average of **9.4 oz** per plant. *Brightwell* yields started June 27th and ended July 26th totaling an average of **4.3 oz** per plant.

For more information about blueberry culture go to

<https://rucore.libraries.rutgers.edu/rutgers-lib/43412/PDF/1>