

**Progress report on research project submitted to
Southern Region Small Fruit Consortium**

**Title: Horticulture and Economic Evaluation of
Early Ripening Rabbiteyes for
Local Sales and Distant Shipping**

Principal Investigator (s):

Gerard Krewer
POB 748
Dept. of Horticulture
UGA Tifton Campus
Tifton, Ga. 31793
gkrewer@uga.edu

Greg Fonsah
POB 1209
Dept. of Ag and Applied Economics
UGA Tifton Campus
Tifton, Ga. 31793
gfonshah@uga.edu

Grant Code: SRSFC Project # 2006-14

Objectives:

Very little of the land in the Southeast is suitable for the planting of southern highbush and highbush blueberries without massive soil amendments and overhead irrigation for freeze protection. In contrast, the rabbiteye blueberry performs well on mineral soils with as little as 1% organic matter with slight soil amendment and 2% organic matter with no soil amendment. The early ripening rabbiteye ‘Climax’ has been widely planted, but growers have been very disappointed with the yield and fruit size of this cultivar. It is no longer recommended for commercial planting in Georgia. ‘Premier’ rabbiteye has better fruit size than ‘Climax’, but can have serious problems with fruit set due to problems with malformed flowers. It is also marginally soft for machine harvest in many situations.

A series of new rabbiteyes have been released but very limited data is available on these cultivars. To my knowledge they have never been tested side by side under the same conditions. The blueberry industry in the area of the SR-SFC is growing at a tremendous rate. Large investments are being made with very limited information on cultivar performance. In particular there is a desperate need for more information on early season rabbiteyes. The objective of this study will be to provide improved

recommendations on early season rabbiteye cultivars for extension agents to recommend and growers to plant.

Justification and Description:

In the past, breeding programs supplied this type of data, however, with the advent of plant patents this is largely no longer the case. Since rabbiteyes are largely self-sterile, matching cultivars by bloom date is important. Bloom date is also important in determining the spring freeze risk. Data to be collected will be rate of growth, plant survival, bloom period, peak bloom date, yield, berry size, time of ripening, taste, mechanical harvest suitability and post harvest quality. Observations on growth habit and pruning required will also be collected.

Materials and Methods:

Experimental design was a randomized complete block with four replications and five plants per replication for a total of 20 plants per cultivar. Plants were obtained from UGA (Dr. Scott NeSmith), NCSU (Dr. Jim Ballington) and Col. Leland Thomas Nursery. Plants were set at UGA Alapaha Blueberry Station in an Albany loamy sand with 1.5% organic matter, very typical of the soils in the SE Coastal Plain. Drip irrigation was provided and one shovel of wet peat will be mixed in the plant hole to speed establishment. A slow release fertilizer supplemented with 10-10-10 was used. Weed control was with preemergent herbicides. Data will be collected starting in year two and continuing to year five, when the bushes should be near maturity. An economic analysis of the cultivars will be performed based on yield, time of ripening and destination of the fruit after machine harvest (fresh or processed). The data should be of great value in extension recommendations for both PYO, local sales and distant shipping.

Cultivars in the trial planted in 2006:

Savory from the University of Florida which ripens starting in mid May.

Roberson (a hybrid) from North Carolina State University which ripens starting in late May.

Premier as industry standards for an early season rabbiteye which ripens starting in late May.

Montgomery from North Carolina State University which ripens starting in late May.

Vernon from the University of Georgia which ripens starting in late May.

Alapaha from the University of Georgia which ripens starting in late May.

Austin from the University of Georgia which ripens starting in early June.

Results:

The experiment was installed and the plants were growing well until mid-spring when a tragic event occurred. The technician at the UGA Alapaha Station sprayed the weeds in the experiment with a mixture of 2% Rely plus surfactant using an insecticide nozzle. About 80% of the plants were killed. Since only plants of the same age can be compared for growth and yield data, this terminated the experiment.

We have obtained more plants of Premier, Alpaha and Austin from Alma Nursery; more plants of Montgomery from Finch Nursery; more plants of Vernon from Dr. Scott NeSmith and more plants of Savory from Col. Leland Thomas Nursery. The experiment will be completely replanted in Jan. 2007 and mulched with pine bark to avoid herbicide problems.

Impact Statement:

There is no Impact Statement at this time.

Citation(s) for any publications arising from the project

Krewer, Gerard and D. Scott NeSmith. Revised 2006. Blueberry Cultivars for Georgia.
www.smallfruits.org