



ORANGE & Blueberries



BY BREEDING BLUEBERRIES UNIQUELY ADAPTED TO THE STATE'S CLIMATE, UF RESEARCHERS HELP FLORIDA GROWERS PRODUCE FRUIT WHEN NO OTHER STATE CAN

BY NATHAN CRABBE



**“There wouldn’t be blueberry farms in Florida without the University of Florida.”
— Carleen Gunter**



BlueYouth Berries owner Carleen Gunter was a third-generation citrus farmer, but pressures on her Odessa orange groves from pests and disease proved to be too much.

In searching for a replacement crop, Gunter found that blueberries faced fewer problems and allowed for a quick turnaround between planting and production.

She credits the University of Florida for developing varieties of blueberries that thrive in the state, which historically hadn’t been a hotbed for the fruit.

“There wouldn’t be blueberry farms in Florida without the University of Florida,” she says.

Blueberries traditionally were grown in northern states such as Michigan because the plant needed cold weather during its dormant period. In 1976, UF’s blueberry breeding program released three varieties suited to Florida’s climate.

UF has bred a number of additional varieties over the years, with names such as Emerald, Flicker and Sweetcrisp, each suited for ripening periods in various parts of the state and having berries of different sizes and quality.

“This research has really created the Florida blueberry industry,” says John Beuttenmuller, executive director of the Florida Foundation Seed Producers, a nonprofit organization that supports the development of plant varieties at UF.

Blueberries generated more than \$48 million in cash receipts in Florida

in 2010, a 167 percent increase from 2003, according to the state agriculture department. The state ranks fifth in the U.S. in blueberry production and produces about one out of every 10 pints grown in the country, the department reported.

Florida Foundation Seed Producers received more than \$1.7 million in the 2011 fiscal year from blueberry sales and licensing. Beuttenmuller says the nonprofit gets 30 cents per plant sold and money from licenses sold to nurseries and farmers who propagate their own plants, with 70 percent of royalties used to support the UF breeding program.

Blueberries are one of the Florida Foundation Seed Producers’ top crops along with strawberries, adds John Watson, a licensing agent with the group.

The varieties have allowed Florida to produce blueberries from late March to mid-May, between when the blueberry season ends in South America and begins north of Florida. Blueberries harvested in that window are more lucrative, fetching \$5 per pound versus \$2 afterward, says Alto Straughn, an Alachua County blueberry farmer.

Straughn says he has helped test hundreds of UF’s blueberry varieties over the years on his three farms in Alachua County. Those farms have grown from 25 acres in 1983 to 700 acres today, he says, with most of the growth occurring since the late 1990s. That period has coincided with improvements in the size and quality of the berries, he says.

“If you weren’t there, you wouldn’t appreciate how much change has occurred,” he says.

UF conducts blueberry research at its Plant Science Research and Education Unit in Citra. The latest research includes breeding or grafting blueberries with sparkleberry, which grows upright



Chris Gilmore

Paul Lyrene, a professor emeritus of horticultural sciences, examines Millennium blueberries on a farm near Gainesville. Lyrene was instrumental in the development of several varieties of blueberry.

in a single trunk like a tree and would allow for mechanical rather than hand harvesting of the fruit.

“Maybe at some point down the road we will have a super blueberry plant,” says Jeff Williamson, a UF horticultural sciences professor who specializes in blueberries.

Other issues of focus include developing blueberries that need less water, are better suited to Florida’s soils and require little or no cold during their dormant period. The varieties have allowed blueberry farms to be established as far south as LaBelle, says Bill Braswell, president of the Florida Blueberry Growers Association.

“That’s the only reason we’re in business ... This is not blueberry country,” he says.

Braswell was an airline pilot before becoming a blueberry farmer in Polk County a dozen years ago. Established agricultural companies such as Winter Haven-based Wm. G. Roe & Sons, founded in 1927 and marketing its products under the Noble brand, have diversified in adding blueberries to their traditional citrus production.

The blueberry season fits between seasons for citrus, allowing farm workers to be employed there for more of the year, says Bill Roe, company vice

president. The research being done at UF has resulted in varieties that can be grown earlier and farther south, he says.

“We don’t have the money in our budgets to do the things they do,” Roe says. ❌

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Related website:
<http://www.hos.ufl.edu/faculty/jwlmstead/blueberry-breeding-and-genetics>



Florida Blueberries

Buying, storage and cooking tips:

Buying:

They should be firm and brightly colored. Always check the bottom of the container for stains from rotting or moldy berries. Blueberries should be consumed two to three days after purchase.

Storage:

Never allow blueberries to dry out. Use a damp paper towel to help keep moisture in the package, but do not rinse them until it is time to eat them. As soon as blueberries start to wilt, separate by hand.

Freezing:

To freeze blueberries, arrange them in a single layer on a cookie sheet. This way they will freeze evenly and you won't end up with a brick of frozen berries. After they are frozen, transfer them to a freezer bag and be sure to label with the date. They can be stored frozen for up to six months.

Cooking:

Wash blueberries before eating. Add blueberries to batters or mixes at the last minute to prevent them from breaking.

Use frozen leftover blueberries in smoothies or milkshakes.

Lightly heat with sugar and a splash of brandy to make a wonderful topping for desserts or ice cream.

Flavors well with:

Lemon, cinnamon, cloves, pecans, peaches, yogurt, mint

Nutrition info:

Serving Size: 148g (1 cup)
Calories 84
Calories from Fat 4.41g
Total Fat 0.49g
Total Carbohydrate 21.45g
Protein 1.10g
Fiber 3.6g

Facts

Grown in mostly inland Florida counties, the blueberry is available from March through May, with peak availability in April. Blueberries, like all other dark purple and blue fruits, are high in antioxidants, which can help with the aging process.

5TH

State's ranking in U.S. blueberry production. It produces 9 percent of the blueberries grown in the country.

3,500+

Harvested acres of blueberries in the state and up to 15 million flats of blueberries in production.

1,700

Jobs the blueberry industry represents in the state, \$7 million in indirect tax contributions and more than \$115 million in total impact on the state economy.

\$48.2 Million

Cash receipts from Florida blueberries in 2010, a 167 percent increase from 2003. Harvested acreage expanded 200 percent in the same period.



Indian and Japanese masks used in festivals, performances and as architectural elements reflect upon themselves in a display case in the Harn Museum of Art's new David A. Cofrin Asian Art Wing. Pictured: India, Mask of Ravana, c. 1900 – 1950.