

INTRODUCTION

The Florida blueberry industry has grown rapidly in the past 20 years; today the state has more than 7,000 acres of commercial blueberries, producing approximately 20 million pounds with an annual farm-gate value of \$75 million.

UF/IFAS played a pivotal role in the industry's growth by releasing southern highbush cultivars that ripen April through May, a time of year when few blueberries are available and market prices are high. Historically, rabbiteye blueberries were first cultivated in the early twentieth century in Florida, but because of competition with northern blueberry producers, acreage steadily declined to less than 100 acres until the 1970s when southern highbush cultivars were released.

Since 2005, nearly all acreage planted in Florida has been in southern highbush cultivars developed by UF/IFAS. The industry continues to move farther south into areas such as DeSoto, Highlands, and Okeechobee counties.

FROM THE BEGINNING

The UF/IFAS blueberry breeding program started in the 1940s to develop low-chill, early-ripening, high-quality blueberry cultivars. One initial obstacle was developing competitive cultivars at the edge of the natural adapted range for highbush blueberry. This was accomplished by crossing high-quality, northern blueberry cultivars with the native Florida *Vaccinium* species and selecting for low-chill requirements. The resulting cultivars, known as southern highbush, revolutionized blueberry production in Florida and worldwide, allowing production in low-chill areas and creating a year-round supply of fresh blueberries. The first southern highbush cultivars were 'Sharpblue', 'Flordablue', and 'Avonblue', released in the late 1970s.

Since then, UF/IFAS has released 35 southern highbush cultivars, and the initial germplasm developed has contributed to all southern highbush cultivars released worldwide.

TODAY AND TOMORROW

Moving forward, the UF/IFAS blueberry-breeding program will continue releasing cultivars that help Florida growers become more efficient and economical. One goal will be breeding low-chill blueberries that can grow in a complete evergreen production system. Other desirable traits include improving pH requirements and drought tolerance, developing machine harvest-capable cultivars to reduce labor costs, and producing cultivars with crisp texture and better flavor. The program also breeds for important fruit qualities such as a small, dry stem scar, firm texture, optimal sugar-to-acid balance, large size, and a light-blue color.

The UF/IFAS blueberry-breeding program will continue to produce cultivars with a low-chill requirement, early fruit maturity, disease tolerance, and high yield of quality fruit.

The program is also beginning to use marker-assisted breeding, which uses DNA markers associated with important traits in blueberry to make selections and improvements more efficiently. The search is under way for molecular markers associated with these desirable traits.

Additionally, researchers in this program will continue their innovation and exploration of new uses for blueberries such as ornamental blueberry cultivars for the landscape.





BLUEBERRY VARIETIES RELEASED SINCE 2009

Release Date	Cultivars
07/09/09	Flicker™ 'FL96-43' (USPP21,554) Meadowlark™ 'FLO1-173' (USPP21,553) Chickadee™ 'FLO4-235' (USPP21,376) Raven™ 'FLO5-627' (USPP21,374) Vireo™ 'FLO5-107' (USPP21,375) Bobolink™ 'FLO3-291' (USPP21,377) Kestrel™ 'FLO2-40' (USPP21,719)
08/27/14	Indigocrisp™ 'FL98-325' (USPP26,523) 'FLO3-228' (USPP27,576) 'FL98-423' (USPP27,325)
01/26/15	Avanti™ 'FLO6-203' (USPP26,312) Endura™ 'FLO6-377' (USPP26,679) Arcadia™ 'FLO7-399' (USPP26,313)
02/01/16	Keecrisp™ 'FLO6-556' (USPP27,771) 'Patrecia' (USPP27,740)
04/25/17	'Magnus' (USPPAF) 'Wayne' (USPPAF) 'Optimus' (USPPAF)
09/20/17	'FLR1211' 'FLR1289'
10/10/2018	'FLR14372'

HIGH IMPACT RELEASES

Sharpblue (1976): This was the first southern highbush variety ever released and is what launched the Florida blueberry industry. It has been widely grown around the world and is the foundational cultivar for southern highbush blueberry production.

Star (1996): This is widely adapted in the southeastern U.S. and is one of the most popular southern highbush varieties worldwide. It has desirable bush habit, high vigor and survival, concentrated early ripening, and high-fruit quality.

Jewel, US PP11,807 (1998): This is the second-most commonly grown blueberry variety in Florida and is widely grown in other low-chill production regions around the world. It has copious flower-bud production, excellent picking scar, and firm fruit.

Emerald, US PP12,165 (1999): This is well-adapted to Central Florida and is the most commonly grown blueberry variety in Florida. It has high vigor, large fruit size, and has produced very high yields in blueberry production regions around the world.

Snowchaser, US PP19,503 (2005): As one of the earliest-ripening southern highbush varieties in the world, this variety has given producers the ability to produce high-quality fruit in a window when market prices are often high. Its fruit has excellent flavor and aroma, and it has performed well in evergreen production systems.

FACULTY RESEARCH CONTACT:



Patricio R. Munoz, Assistant Professor
Blueberry Breeding
Horticultural Sciences Department
352-273-4837 · p.munoz@ufl.edu