## FLORIDA FOUNDATION SEED PRODUCERS, INC.

## The Next Generation of Southern Highbush Blueberry Varieties

Kestrel<sup>TM</sup> 'FL02-40' (U.S. Patent PP21,719) is noted for its very early-ripening and superior berry quality. Plants demonstrate prolific early leafing, and this variety has done well in tests of evergreen production systems. Flowers open around January 30 of each year. Berry quality is excellent, and the plants produces berries that are plump, firm, and aromatic. Plants produce medium-loose berry clusters which require very low detachment force.





Meadowlark™ 'FL01-173' (U.S. Patent PP21,553) is an extremely early variety, ripening about 10 days before 'Star', with high yield potential, and a superior ability to leaf strongly during flowering. It has been one of the top performers in mechanical harvest trials conducted by UF and UGA. Plants have survived medium-to-well in the field. Plants produce large, firm, mild flavored berries which maintain quality for a long time while on the bush.

Chickadee<sup>TM</sup> 'FL04-235' (U.S. Patent PP21,376) is an early-maturing, vigorous plant which has a good survival rate and an upright growth habit. Plants flower very early with very high pollen abundance. Plants produce very high quality berries with a flavor that is sweet with low acidity. The berries are large, firm, and almost crisp. Berries ripen extremely early; 50% of the berries were ripe by April 15 in trials in Gainesville, Florida.





Flicker™ 'FL96-43' (U.S. Patent PP21,554) is an upright, highly vigorous variety with excellent potential for evergreen production. Plants have shown medium to good survival in the field, but have had problems leafing in some years. Plants of 'FL96-43' have high yield potential. Fruit is large and attractive and tend to grow in very loose clusters. Berries are light-blue, with a small, dry picking scar. Berries have high firmness, good flavor, and maintain quality for a long time while on the bush.

Bobolink<sup>TM</sup> 'FL03-291' (U.S. Patent PP21,377) is a highly vigorous variety with excellent survival and a strong upright growth habit. Plants leaf well early in the season with high pollen abundance. Plants boast large, high quality berries which are sweet even when first turning blue. In experimental trials, berries averaged a weight of 2.75g, and plants have potential for high yield. Berries are typically 50% ripe by April 23 in Gainesville, Florida.





Raven<sup>TM</sup> 'FL05-627' (U.S. Patent PP21,374) flowers later than most Florida blueberry cultivars, about the same time as that of 'Star'. 'FL05-627' has a high pollen abundance and a desirable growth habit. Berries cluster loosely on the plant, and maintain good firmness on the bush. Berries are extremely large, high-quality, and possess low acidity and mild flavor. Berries are pleasing to the eye and detach from the plant with little force. Berries are typically 50% ripe by May 2.

Indigocrisp<sup>TM</sup> 'FL98-325' (U.S. Patent PP26,523) is an early maturing variety best adapted to areas with chilling requirements similar to or higher than Gainesville, Florida. Plants exhibit good vegetative budbreak with high crop loads. Plants produce berries with very firm, crisp textured skin, and a very high sugar-to-acid ratio. When compared to other crisp-textured cultivars, it matures earlier and has higher yields. 'FL98-325' also has the potential to be machine harvested.





Avanti<sup>TM</sup> 'FL06-203' (U.S. Patent PP26,312) is a new variety which is noted for its very low chill requirement, very early fruit maturation (as early as late-January in south-central Florida), and adaptation to production regions in central and south-central Florida. Plants are particularly well suited to evergreen systems, with yields far exceeding the current evergreen variety standards. Plants produce firm, high quality fruit with a small, dry picking scar.

Arcadia<sup>TM</sup> 'FL07-399' (U.S. Patent PP26,313) is a new mid-season variety best adapted to production regions similar to central and south-central Florida. Plants produce high berry yields when grown in an evergreen management system, and the peak of production (in central and south-central Florida) aligns well with the high-value market window. Plants survive well in the field and have a high tolerance to leaf diseases.





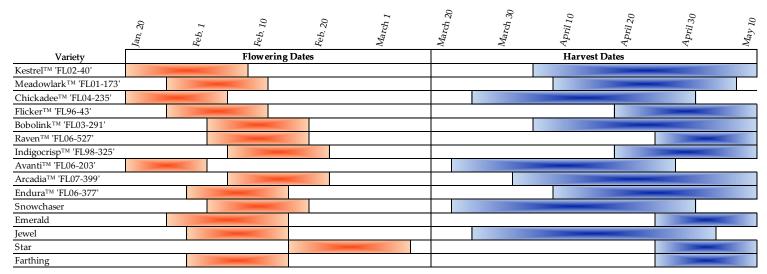
Endura<sup>TM</sup> 'FL06-377' (U.S. Patent Pending) is a mid-to-late maturing variety best adapted to production regions similar to central Florida. Plants perform well under both evergreen and hydrogen cyanamide management systems. Plants produce large, firm berries that have an excellent, persistent blue color. Plants return high season-long yields, and have consistently outperformed the current evergreen variety standard in central Florida.

The UF/IFAS blueberry breeding program aims to produce cultivars with a low chill requirement, early fruit maturity, disease tolerance, and high yield of quality fruit. Blueberries in Florida must have a low chill requirement and early fruit maturity to expand and maintain production in warmer climates. Disease tolerance is necessary to withstand fungal, bacterial, and viral pathogens. The program also breeds for important fruit qualities, such as a small, dry stem scar; firm texture; proper sugar-to-acid balance; large size; and a light blue color. Recent highlights of the UF/IFAS program include Indigocrisp™ 'FL98-325' (USPP26,523), a cultivar with a unique crisp texture that performs well in machine-harvesting for the fresh market, and Meadowlark™ 'FL01-173' (USPP21,553), the first UF/IFAS cultivar that includes sparkleberry, a Florida native adapted to soils that cannot support highbush blueberries.

Moving forward, the UF/IFAS blueberry breeding program will continue researching cultivars that help Florida growers more efficiently and economically produce blueberries. One key will be breeding low-chill blueberries that can grow in a complete evergreen production system, expanding the range of Florida blueberry production. Other desirable traits include increasing pH and drought tolerance, developing machine-harvest capable cultivars, thus reducing labor costs, and producing cultivars with crisp texture and better flavor. The program is also beginning to use marker-assisted breeding, which uses DNA fingerprinting of cultivars to identify plant qualities during propagation. The search is under way for molecular markers associated with low-chill genetics, flavor components, and fruit texture, all characteristics that could be used to select desirable plants for field testing before fruiting.

**Historical Releases:** Bluegem (1970) Sharpblue (1975) Misty (1990) Southmoon—US PP9,834 (1995) Star — US PP10,675 (1995) Bluecrisp—US PP11,033 (1997) Santa Fe—US PP10,788 (1997) Jewel—US PP11,807 (1998) Sapphire—US PP11,829 (1998) Emerald – US PP12,165 (1999) Millennia—US PP12,816 (2000) Windsor—US PP12,783 (2000) Sebring—US PP13,683 (2001) Southern Belle—US PP13,931 (2001) Floridarose – US PP14,485 (2002) Abundance—US PP16,476 (2003) Springhigh—US PP16,404 (2003) Springwide—US PP16,333 (2003) Snowchaser—US PP19,503 (2006) Primadonna—US PP20,181 (2006) Sweetcrisp—US PP20,027 (2006) Scintilla—US PP19,233 (2007) Farthing—US PP19,341 (2007) FLX-1 (San Joaquin)—US PP19,342 (2007)

In the future, the program expects to adopt molecular-marking assisted breeding strategies for the most important traits under selection. This will allow the program to be more efficient in identifying cultivars for Florida blueberry production. More efficient core breeding strategies will create opportunities to explore new avenues, such as ornamental blueberry cultivars for the landscape; wide crosses with additional native Vaccinium sources to diversify blueberry germplasm; and traits that may add value in the market, such as unique colors, flavors, and textures.



Note: Flowering Dates and Harvest Dates are based on trials in and around Gainesville, Florida, USA. These dates and other variety characteristics may differ based on growing location, climate, horticultural practices, and other variables.

