

INTRODUCTION

From pristine golf courses to home lawns, Florida has nearly 4 million acres of maintained turfgrass with an estimated total economic output of \$7.82 billion annually. Florida is ranked first nationally in sod production, employment in the sod industry, number of golf courses, and employment within the golf sector (>50,000 jobs). Florida's lawncare and landscape-maintenance industry ranks second in the nation, after California's. It is a priority to develop cultivars that are tolerant to disease, insects, nematodes, shade, drought, heat, and traffic wear, and also meets Florida's current water-use and nutrient-application regulations.

FROM THE BEGINNING

Throughout its history, UF/IFAS has been involved with the release of 17 cultivars of six different turfgrass species. The formal UF/IFAS turfgrass breeding program was developed in the 1950s when researchers began breeding for turfgrass quality and resistance to biotic stresses such as insects, nematodes, and diseases, and abiotic stresses such as drought, shade, heat, and nutrient availability. In the 1960s and '70s, 'Floritam' was co-developed with Texas A&M University and remains the most popular St. Augustinegrass cultivar, accounting for 69 percent of Florida's sod production.

In 1997, the UF/IFAS warm-season turfgrass breeding program moved to the Everglades Research and Education Center in Belle Glade. Throughout the next decade, researchers released cultivars such as 'Aloha', a seashore paspalum recommended for golf courses and sports fields; 'BA-417', the only centipedegrass developed and intended for use in South Florida; 'BA-189', a zoysiagrass for landscape settings; Toccoa Green® 'BA-305', a zoysiagrass for high-maintenance turf areas; and Captiva® 'NUF-76', a dwarf St. Augustinegrass with improved tolerance to southern chinch bugs.

TODAY AND TOMORROW

The UF/IFAS turfgrass breeding programs are focused on improving turfgrass quality and developing tolerance to several biotic and abiotic stresses. The biotic-stress programs are examining responses to sting nematodes, large patch disease, dollar spot, chinch bugs, and hunting billbugs. The abiotic-stress programs are testing the shade and drought responses of zoysiagrass, St. Augustinegrass, and bermudagrass; identifying lines that can persist under long-term shade; and identifying lines that will hold color and quality in dry conditions. Key to the success of these evaluations is involvement from other University of Florida turfgrass scientists who are experts in management/physiology, diseases, insects, and nematodes. The success of this involvement has resulted in the release of three new zoysiagrass cultivars and a new St. Augustinegrass cultivar in 2018, and an additional release of a new zoysiagrass cultivar in early 2019.

The turf-type bahiagrass program aims to enhance turf quality of bahiagrass using traditional and mutagenic breeding approaches. Making up 24 percent of the sod produced in Florida, this low-input turfgrass is used along highways and in reduced-value landscapes because it tolerates heat, drought, and marginal soil while resisting insects and disease. Researchers are evaluating genetically improved bahiagrass plants in controlled environments to identify lines with improved turf quality.

An important component of the turfgrass breeding program is engaging sod producers and golf-course superintendents prior to cultivar release, ensuring that cultivars meet production and performance standards.

Involving multiple scientists in a team approach will result in more successful cultivars with greater potential to enhance the turfgrass industry.



TURFGRASS VARIETIES RELEASED SINCE 2006

Release Date	Cultivars
Centipedegrass	
10/31/06	'BA-417' (USPP20,812)
Seashore Paspalum	
05/17/07	'Aloha' (USPP23,333)
St. Augustinegrass	
07/20/06	FloraVerde '1997-6'
07/23/07	Captiva® 'NUF-76' (USPP21,280)
01/31/18	CitraBlue™ 'FSA1602' (USPPAF)
Zoysiagrass	
05/17/07	Toccoa Green® 'BA-305' (USPP18,415)
05/17/07	'BA-189' (PP23,716)
01/31/18	'FAES 1312', 'FAES 1313', 'FAES 1319' (USPPAF)
01/15/19	'FAES 1307' (USPPAF)

HIGH IMPACT RELEASES

Floritam (1973): This improved St. Augustinegrass was released jointly by the University of Florida and Texas A&M University. 'Floritam' is the most widely produced and used St. Augustinegrass in Florida and is widely produced and used throughout the southern U.S. It has been a dominant variety for decades.

Toccoa Green® 'BA-305' (2007): This improved, fine-textured zoysiagrass produces a carpet-like, uniform canopy with reduced seed-head production, a dark leaf color, excellent shade tolerance, and a fast rate of establishment and ground coverage.

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