<u>2017 – Tifton – Partnership Between UGA and GGEF to Develop Environmentally Sustainable, High</u> <u>Quality Turfgrasses Through On-Site Golf Course Research Trials</u>

History

We began testing new hybrid bermudagrasses and zoysiagrasses, during 2012, as a way for me to develop relationships with golf course superintendents who had collaborated with the Tifton program in the past. Since then, we have had research trials at the Atlanta Athletic Club, Atlanta Country Club, Big Canoe Golf Course, Country Club of Columbus, East Lake Golf Club, Ford Plantation, Landings Club, Sea Island Golf Club, University of Georgia Golf Course, and Valdosta Country Club. In addition to the 5 ongoing trials planted during 2016 or before, we established new tests at Big Canoe Golf Course and at East Lake Golf Club during 2017.

GGEF Sponsored Students

Mr. Jonathon Fox had a productive year. He is currently in the second year of his M.S. research project studying the development of shade tolerant turfgrasses. He and his team won the graduate student division of UGA FABricate competition, and he individually won 1st Place in the graduate student poster competition at the national Crop Science Society meetings. Mr. Tyler DaSilva is the GGEF sponsored undergraduate student. This is his final semester at ABAC where he will earn a B.A.S. in Turfgrass & Golf Course Management. He has accepted a position in Jacksonville, FL at Queen's Harbour Yacht and Country Club. Both students have been instrumental in propagating plant materials for the GGEF sponsored research trials, as well as for those planted at the UGA Tifton Campus, University of Tennessee – Knoxville, Independence Golf Club in Virginia, and TPC Sawgrass in Florida.



Country Club of Columbus

William Smith renovated the old research green prior to planting on July 15th, 2015. All three bermudagrasses (TifEagle, 12-TG-101, and 12-TG-143) established very quickly. A picture of the green during October 2017 is below, as well as a summary of the 9 stimp measurements taken to-date.

C.C. of Columbus (9 Stimp Measurements)			
(2015 – 20	17)	Fastest Date	Overall Avg.
Bermuda	TifEagle	12.0'	9.6'
	12-TG-101	12.1'	9.8′
	12-TG-143	11.7′	9.4'
	TifEagle Green	12.0′	10.0'

Landings Club

Chris Steigelman renovated a portion of the old practice green prior to planting on July 21st, 2015. All three bermudagrasses (12-TG-39, 12-TG-101, and 12-TG-143) established very quickly. A picture of the green during the fall of 2016 is below, as well as a summary of the 7 stimp measurements taken to-date.

The Landings Club (7 Stimp Weasurements)				
(2015 – 2017))	Fastest Date	Overall Avg.	
	TifEagle	11.3'	9.6'	
	TifGrand	12.5'	8.9'	
	12-TG-39	11.4'	9.7′	
Bermuda	12-TG-101	12.2'	9.7'	
	12-TG-143	10.5'	9.5′	
	11-T-358	11.8′	10.0'	
	11-T-861	12.4'	9.6′	
Paspalum	SeaStar	10.8'	8.7'	

Valdosta Country Club

Barry Bennett renovated the old practice green prior to planting on May 25th, 2016. Tom Howard and Randall Bice managed the green for most of 2016 and 2017. All five bermudagrasses (Tifdwarf, TifEagle, 12-TG-39, 12-TG-101, and 12-TG-143) established fairly quickly. A picture of the green during July of 2017 is below, as well as a summary of the 7 stimp measurements taken to-date.

Valdosta C.C. (7 Stimp Measurements)		
17)	Fastest Date	Overall Avg.
Tifdwarf	10.4'	8.5'
TifEagle	10.3'	8.9'
12-TG-39	10.7'	9.1'
12-TG-101	9.4'	8.9'
12 TC 142	10.0/	9.0'
	17) Tifdwarf TifEagle 12-TG-39 12-TG-101	17)Fastest DateTifdwarf10.4'TifEagle10.3'12-TG-3910.7'

Atlanta Country Club

Mark Esoda constructed a new research green adjacent to his bentgrass research green prior to planting on June 16th, 2016. All three bermudagrasses (TifEagle, 12-TG-101, and 12-TG-143) established quickly, but six large trees surrounding the green were removed September 6th, 2016 because the green was only getting 2 hours of sunlight. A picture of the green during June of 2017 is below, as well as a summary of the 5 stimp measurements taken to-date.

Atlanta Country Club (5 Stimp Measurements)			
(2016 – 20	17)	Fastest Date	Overall Avg.
Bermuda	TifEagle	8.5'	7.4'
	12-TG-101	9.0'	7.5′
	12-TG-143	8.3'	7.5′
Bent	A-1	9.2'	9.2'

Big Canoe Golf Course

Lydell Mack converted a bentgrass nursery green to a research plot during 2017. This test site is divided in two equal areas, one treated as a "no-till" soil profile and the other "cored-out" and refilled with a new green's mix. Two bermudagrasses (TifEagle and 12-TG-101) and two zoysiagrasses (Diamond and M-85) were planted in long strip-plots that span across both soil profiles on May 25th, 2017. There were significantly more, and better TifEagle and Diamond sprigs which resulted in quick establishment of these two varieties. Additional 12-TG-101 sprigs were planted on June 13th, 2017 to supplement the plot, but M-85 remained thin due to the low initial sprigging rate, resulting in a slower establishment over the course of the year. Preliminary stimp ratings were made for all grasses during 2017. The most important information to be gleaned from this trial will be the long-term survival potential of each genotype over several winters when covered, and where left unprotected during the winters.



East Lake Golf Club

Ralph Kepple renovated a shady area where he had been testing the persistence of TifGrand, TifTuf, and JaMur. This location has a continuum of moderate to heavy shade cast by several large and many small trees. Three experimental bermudagrasses and four experimental zoysiagrasses identified as shade-tolerant by Mr. Jonathon Fox's M.S. research under 73% shade cloths were planted at East Lake on July 28th, 2017. Differential rooting, vertical growth, and winter dormancy has been observed to-date. Work will continue over the next several years to determine long-term persistence of these bermduagrasses and zoysiagrasses in a shaded, golf rough environment.

