<u>2018 – Tifton – Partnership Between UGA and GGEF to Develop Environmentally Sustainable, High</u> <u>Quality Turfgrasses Through On-Site Golf Course Research Trials</u>

History

During 2012 we began testing new hybrid bermudagrasses and zoysiagrasses 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 7 ongoing trials planted during 2016 or before, we established new tests at Adena Golf & Country Club and The Streamsong Resort in Florida during 2018.

GGEF Sponsored Students

Mr. Jonathon Fox successfully defended his M.S. thesis "Methods for Analyzing Shade Tolerance in Warm Season Turfgrasses" this fall and is now contemplating a leap into the work force versus continued education. During the fall of 2017 he individually won 1st Place in the graduate student poster competition at the national Crop Science Society meetings. Mr. Tyler DaSilva was the GGEF sponsored undergraduate student through graduation in the spring of 2018, and is now an assistant golf course manager at Queen's Harbour Yacht and Country Club. Mr. Cooper Thornton is currently pursuing a B.S. in Environmental Horticulture on the Turfgrass & Golf Course Management track. These 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 and at Pike Creek Turf.



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 2018 is below, as well as a summary of the 12 stimp measurements taken to-date.

C.C. of Columbus (12 Stimp Measurements)				
(2015 – 20	18)	Fastest Date	Overall Avg.	
	12-TG-101	12.1'	9.9'	
	TifEagle	12.0'	9.7′	
Bermuda	12-TG-143	11.7′	9.5′	
	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 2018 is below, as well as a summary of the 9 stimp measurements taken to-date.

The Landing					
(2015 – 2018)		Fastest Date	Overall Avg.		
	TifEagle	11.3′	9.8′		
	12-TG-101	12.2'	9.7′		
Bermuda	12-TG-39	11.4'	9.7′		
	12-TG-143	10.5'	9.5'	and the second se	
	TifGrand	12.5′	8.8'		
Paspalum	SeaStar	10.8'	9.0'		A Revenue and
				ALC: NOT THE OWNER OF	

Valdosta Country Club

Barry Bennett renovated the old practice green prior to planting on May 25th, 2016. Tom Howard and Randall Bice have been managing the green for the last two years. All five bermudagrasses (Tifdwarf, TifEagle, 12-TG-39, 12-TG-101, and 12-TG-143) established fairly quickly. A picture of the green during September of 2018 is below, as well as a summary of the 8 stimp measurements taken to-date.

Valdosta	C.C. (8 Stim		A A A			
(2016 – 20	18)	Fastest Date	Overall Avg.	 1		
Bermuda	TifEagle	11.5'	9.0'			
	12-TG-143	10.8′	9.0'			
	12-TG-39	10.7'	9.0'			
	12-TG-101	9.9'	9.0'	•		
	Tifdwarf	10.4'	8.4'			

Atlanta Country Club

Mark Esoda constructed a new research green adjacent to his bentgrass research green prior to planting on June 16th, 2016. Scott Lambert and James Rauhuff have been managing the green for the last year. 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 August of 2018 is below, as well as a summary of the 8 stimp measurements taken to-date.

Atlanta Country Club (8 Stimp Measurements)			
(2016 – 2018)		Fastest Date	Overall Avg.
	12-TG-101	11.4'	8.3'
Bermuda	12-TG-143	10.9'	8.2'
	TifEagle	10.9'	7.9′
Bent	A-1	10.0'	9.3′

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. Pictures of the green during 2018 are below, as well as a summary of the 3 stimp measurements taken to-date. 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.

Big Canoe Golf Course (3 Stimp Measurement)			
(2017 – 2018) Fastest Date Overall Avg.			
New	12-TG-101	8.9'	8.5'
	TifEagle	9.3'	8.4'
Rootzone	M-85	8.6'	8.3'
	Diamond	8.9'	7.6'
	12-TG-101	9.3′	8.2'
NL	TifEagle	8.9'	8.2'
NO-1111	Diamond	8.2'	7.4'
	M-85	8.1'	7.3'
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TPC Sawgrass

Jeff Plotts constructed a large research site during the summer of 2017. Our experimental bermudagrass (12-TG-101) is being compared to four bermudagrass (TifEagle, Sunday, Imperial, and G12) and three zoysiagrass (Primo, Prizm, and DALZ1308) cultivars. A picture of the plots during March October 2018 is below, as well as a summary of the first stimp measurements taken to-date.

TPC Sawgra	ss (1 Stimp N	/leasuremen	t)	
(2017 – 2018)		Stimp	Overall Avg.	
Bermuda	Imperial	9.5′	-	he is
	12-TG-101	8.8'	-	
	G12	8.8'	-	
	TifEagle	8.7′	-	
	Sunday	7.7′	-	
Zoysia	Prizm	8.6'	-	
	Primo	8.2'	-	and the second second
	Tambika	7.3′	-	

Adena Golf & Country Club

Asa High renovated a portion of the old TifEagle nursery green prior to planting in May of 2018. Two experimental bermudagrasses from UGA (11-T-56 and 12-TG-101) and four from UF were establishing very quickly, but unfortunately the Golf & Country Club was unexpectedly closed during June of 2018 and the experiment was lost. Pictures of the green at planting and in June are below.



Streamsong Golf Resort

Rusty Mercer constructed a new research site during 2018 to compare MiniVerde, TifEagle, Mach1, and the UGA experimental variety 12-TG-101. Sprigs were planted during September of 2018 and have been establishing very quickly. The goals of this research site are to test adaptation to the long-season growing environments and very intense topdressing and growth regulator management. Pictures of the green during planting and six weeks later are below.



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. Two of the three bermudagrasses, and one of the four zoysiagrasses failed by the fall of 2018. Work will continue over the next several years to determine long-term persistence of the surviving bermduagrass and zoysiagrasses in this shaded, golf rough environment.

