

Title: Bermudagrass Breeding and Genetics (2006-18-326)

Project Leader(s): Brian Schwartz

Affiliation: The University of Georgia

Objectives:

1. To evaluate the performance of new bermudagrass and zoysiagrass hybrids under actual golf course putting greens management.

Start Date: 1999

Project Duration: Ongoing

Total Funding: \$160,000

We began the first phase of this research plan in 2012 as a way for me to develop relationships with golf course superintendents who had collaborated with the Tifton program in the past. Everyone who volunteered to participate took on the burden of building or renovating old practice greens for me to test the hypotheses of whether or not new bermudagrass hybrids, i.e., ones that are not ‘Tifgreen’ mutants, or if needle-like zoysiagrasses could be managed successfully. What we have learned to-date is that just because a grass has deeper roots, a thin mat-layer, and outperforms Tifdwarf, MiniVerde, Champion, and TifEagle on the research station does not mean that they will find a place on the golf course. The take-home message from the first few years of these trials has helped shape my strategy for breeding new putting greens grasses. Simply, a plant with smaller, upright leaves does not necessarily correlate with a faster, better putting surface.

Summary Points:

1. Prior to 2015: Ken Mangum fumigated the research green at the Atlanta Athletic Club with Basamid prior to planting on June 5th, 2012. The bermudagrasses established very quickly, but the zoysiagrasses took over one year to fully grow-in. A picture of the green and a summary of the stimp readings are below.



Atlanta Athletic Club (12 Stimp Measurements)			
(2012 – 2014)		May 2 nd , 2013	Overall Avg.
Bermuda	Champion	11.4'	10.1'
	08-T-18	9.9'	8.4'
Zoysia	Diamond	-	8.3'
	L1F	8.9'	8.2'
	10-TZ-74	-	8.2'
	FAES 1301	7.8'	7.4'
Paspalum	1743	8.3'	7.9'

2. 2015: Trials were planted during 2015 at the Country Club of Columbus, The Landings, and the Atlanta Athletic Club. Also, Scott Griffith built a 1,500 ft² research green with drainage at the University of Georgia Golf Course with partial funding from the USGA grant given to the UGA Tifton Breeding Program prior to planting 10-TZ-74 zoysiagrass sod on July 29th, 2015. The sod rooted relatively quickly and has been topdressed regularly since planting so that stimp meter evaluation can begin during 2016 at putting greens HOC. Pictures of the green at planting and during the fall 2015 are below.



3. Future Work: We have plans to establish new tests at the Valdosta Country Club and the Atlanta Country Club during 2016.