

USGA GREEN SECTION RESEARCH PROGRAM

ANNUAL REPORT

DECEMBER 2, 2016

PROJECT TITLE:

On-Site Testing of Grasses for Overseeding of Bermudagrass Fairways  
USGA ID#: 2016-24-574

PROJECT LEADER

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START DATE

2016

PROJECT DURATION

Three years

TOTAL FUNDING

\$90,000

SUMMARY TEXT

Even though golf course overseeding usage is declining, resort courses and some private and public facilities will continue the practice into the future. Therefore, this project was developed to address issues related to overseeding of bermudagrass fairways. A focus of this project is the use of saline/low quality water or sites that reduce water use by irrigating with lower evapotranspiration (ET) replacement rates.

An advisory committee consisting of representatives from the USGA, NTEP, universities and seed companies selected ten golf courses, in key areas of the southern and southwestern U.S. to evaluate this trial. The advisory committee recommended that not only single cultivars, but also blends and mixtures of various species could be included in the trial. Therefore, twenty-

two entries were submitted that consist of ten ryegrass blends, nine single perennial ryegrass cultivars, one intermediate ryegrass, one annual ryegrass and one *poa trivialis*. Three standard entries were also added to the trial (one each of perennial ryegrass, intermediate ryegrass and *poa trivialis*).

Trial locations were selected in important use areas and/or locations with challenging environments/unique characteristics. Unfortunately, a central California golf course that was chosen rescinded its participation just prior to establishment. As we were unable to locate a suitable replacement course in California, the following is a list of nine selected trial locations established in fall 2016:

Golf Course	Location	Cooperator	University
Jekyll Island Golf Club #	Jekyll Island, GA	Dr. Clint Waltz	Georgia
Lonnie Poole @ NC State #	Raleigh, NC	Dr. Grady Miller	N.C. State
The Rawls @ Texas Tech #	Lubbock, TX	Dr. Joey Young	Texas Tech
Lakeside #	Stillwater, OK	Dr. Charles Fontanier	Oklahoma State
New Mexico State Univ. #	Las Cruces, NM	Dr. Bernd Leinauer	New Mexico State
Tucson Country Club ^	Tucson, AZ	Dr. David Kopec	Arizona
Lost Key ^	Pensacola, FL	Dr. Bryan Unruh	Florida
Texas A&M Univ. Campus ^	College Station, TX	Dr. Casey Reynolds	Texas A&M
Mississippi State Univ.	Starkville, MS	Dr. Wayne Philley	Mississippi State

# Uses reduced water rates via ET replacement

^ Utilizes saline irrigation water

Entries were established in 100 sq. foot plots, replicated three times where fairway traffic is evident, but also outside of landing zones. In fall 2016, trials are rated for establishment rate, color and quality. Winter ratings will focus on percent cover of overseeding grass, color, quality, texture and growth rate. Spring and summer 2017 ratings also consist of color, quality, texture and growth rate, with additional ratings of density and percent green cover of bermuda and overseeding grass during the transition back to 100% bermuda. In fall 2017, each trial location will be reseeded with the same entries at the same physical location, with the same data collection protocols as in 2016.

Year one data will be published on the NTEP web site (and via CD) in late summer 2017, with year two data being published in late summer 2018. Data is for use by cooperators, extension personnel, seed companies and golf course superintendents in making recommendations or purchasing decisions.

## SUMMARY POINTS

- This trial focuses on cultivar, blend and mixture performance of twenty-five entries, primarily under reduced (ET based) water rates or the use of saline (low quality) irrigation water.
- Nine golf course sites, chosen based on geographic location and maintenance characteristics, were established in fall 2016 via large plots on fairways.
- Data collection of establishment, color, quality, texture, growth rate and transition commenced in fall 2016 and will continue through spring 2017.
- Plots will be reestablished in fall 2017, in the same physical location and with the same entries, for year two of data collection.
- Year one data will be available via NTEP in late summer 2017, with year two data availability in late summer 2018.

