On-site Testing of Grasses for Overseeding of Bermudagrass Fairways

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Objectives:

1. To determine the best cultivars, blends, mixtures, and species for fairway overseeding. We want to obtain specific information on establishment, color, density, spring transition, response to poor quality irrigation water, disease and other problems. Our project is unique in being the only coordinated overseeding trial, national in scope, covering broad geographic areas with extensive data collection.

Start Date: 2005
Project Duration: two years
Total Funding: $40,000

This is our second national on-site fairway overseeding trial, the first being conducted in fall, 1999 through spring, 2001. This next trial is needed as new grasses, including intermediate and annual ryegrasses, have been developed recently that may be useful in overseeding. These new grasses may reduce the spring transition problems that are a top concern of golf course superintendents. In addition, poor quality irrigation water in some areas is causing unique disease problems and other problems for overseeding.

We plan to address these issues, as well as the traditional needs including identifying grasses that provide exceptional playing surfaces with less pesticides, fertilizer, and water. This project will evaluate new cultivars on bermudagrass fairways at golf courses in the southern and western U.S. This on-site testing program will provide scientific information of a more applied nature about cultivars for overseeding.

Trial sites are located on golf courses near a land grant university with a turfgrass research program or in a major metropolitan area which is readily accessible to a university turfgrass scientist. Twelve evaluation trial sites have been chosen. Trials are positioned strategically in the following areas: southern California, Arizona, Houston, TX, Mississippi, central Florida, Florida Gulf Coast, Myrtle Beach, SC, Virginia, North Carolina, Atlanta, GA, New Mexico, and Oklahoma.

The twelve trial locations were seeded in September or October, 2005 with the twenty-seven submitted entries and four standards. No establishment problems with any particular entry have been noted.

Four locations have been visited to date, Las Cruces, NM (January 10), Indian Wells, CA (January 17), Pinehurst, NC (May 6) and Oklahoma City, OK (May 24). Data have been collected for fall, 2004 through summer, 2005 from all twelve sites and analyzed separately (by location, not pooled). The data tables can be found on the NTEP web site at http://www.ntep.org/data/os04/os02_05-10/os04_05-10prelim.pdf.

Overall impressions from the first year data indicate that the perennial ryegrasses as a group, either as single cultivars or in blends, still deliver the best quality throughout the season. Their spring transition tendencies seem to be the most predictable.

Poa trivialis *entries are lighter green in color, slower to establish and do not transition as smoothly as ryegrass.*

Intermediate ryegrasses can perform statistically equal to most of the perennial ryegrasses, however their quality ratings are lower than many of the perennials, and they do not appear to transition in spring any easier than perennial ryegrasses *Poa trivialis* entries are lighter green in color, slower to establish, and do not transition as smoothly as ryegrass.

Overseeding trials are being conducted on golf courses where they will receive "real world" traffic stresses.

Summary Points

- This project is evaluating new cultivars on bermudagrass fairways at golf courses in the southern and western U.S.
- Trials are positioned strategically in the following areas: southern California, Arizona, Houston, TX, Mississippi, central Florida, Florida Gulf Coast, Myrtle Beach, SC, Virginia, North Carolina, Atlanta, GA, New Mexico and Oklahoma.
- Perennial ryegrasses as a group, either as single cultivars or in blends, still deliver the best quality throughout the season.
- *Poa trivialis* entries are lighter green in color, slower to establish, and do not transition as smoothly as ryegrass.