

We have an additional trial in progress to evaluate mixtures of grasses including creeping bent, Kentucky bluegrass, fine fescue, Colonial bent and Perennial ryegrass, for fairway usage. Performance of these mixtures is being evaluated both with and without fungicides.

Seed of several dozen of the R. I. bentgrass selections were sent to Dr. Milton Engelke and Dr. Ron Ensign for additional stress evaluations.

RUTGERS UNIVERSITY - Dr. C. Reed Funk
Principal Investigator

Breeding and Evaluation of Kentucky
Bluegrass, Tall Fescue, and Perennial
Ryegrass for Golf

1986 Grant - \$5000 [ongoing support
since 1961]

The New Jersey Agricultural Experiment Station of Rutgers University continues to devote considerable resources to the Turfgrass Breeding Project adding to the support that we are receiving from the United States Golf Association and other sources. This support enables us to make significant improvements in stress tolerance, turf performance, and pest resistance in Kentucky bluegrass, perennial ryegrass, tall fescue, and fine fescues. In addition, we are training a number of students in the fields of turfgrass science and plant breeding. We are also making contributions to basic research.

The effects of endophytic fungi on turf performance and pest resistance in perennial ryegrass, tall fescue, hard fescue, chewing fescue, strong creeping red fescue and blue fescue are continuing. Germplasm collections are being screened for new sources of potentially useful endophytes in other turfgrass species.

TEXAS A&M UNIVERSITY - Dr. James B. Beard
Principal Investigator

Plant Stress Mechanisms

1986 Grant \$73,000 [fourth year
of support]

1. Visual assessment via the high canopy resistance - low leaf area concept offers a rapid, economical approach for screening large numbers of mowed bermudagrass or mowed zoysiagrass plantings under field conditions for low water use rates.
2. A procedure for incorporating radioactive ^{14}C into turfs and then assaying shoot and root sections for radioactivity has been successfully developed and tested for use in rooting studies.