

GCSAA Foundation Funds New Research

(Editor's Note: The following article appeared in GCSAA's *Newsline*. Please note that MGCSA supported a research study on topdressing and water injury.)

Chapter cooperative research received strong support as The GCSAA Foundation's Board of Trustees approved the research committee's funding recommendations. Seven of the eight new projects were submitted under the Chapter Cooperative Research Program, which illustrates the importance the committee places in this area.

The GCSAA Foundation is currently supporting 22 research projects, most of which are in partnership with other allied associations and affiliated chapters. The following are brief descriptions of the recently approved projects:

Evaluation of novel herbicides to control *Poa annua* and *Poa trivialis* in creeping bentgrass (one year; \$5,000 Foundation support; Midwest Association of GCS; Bruce Branham, Ph.D.; University of Illinois). The researchers will test 11 sulfonylurea herbicides for efficacy in the selective control of *Poa annua* and *Poa trivialis* in Kentucky bluegrass and creeping bentgrass.

New technology for insecticidal nematodes that attack white grubs (three years; \$30,000 Foundation support; Long Island GCSA; Randy Gaugler, Ph.D.; Rutgers University). This research will seek low-cost methods of localized mass production of the nematode *Heerohabditis bacteriophora* as a biological control of white grubs.

Late fall sand topdressing: water retention and influences on winter injury (three years; \$18,925 Foundation support; Minnesota GCSA; Don H. Taylor, Ph.D.; University of Wisconsin). The researchers will perform a study on golf courses to determine if the sand



causes or prevents winter injury, and to consider the effect of sand particle size and shape on any injury.

Microbial ecology of sand-based putting greens and its impact on the management of take-all patch caused by *Gaeumannomyces graminis* var. *avenae* (three years; \$6,000 Foundation support; Northern Ohio GCSA; Michael J. Boehm, Ph.D.; Ohio State University). Researchers will analyze over time the microbe populations of golf greens of two root zone mixes and study artificial infestations of take-all patch in various root zone mixes.

Determining best management practices to convert a putting green from Penncross to a new variety (three years; \$21,000 Foundation support; North Carolina State University). This project will evaluate several overseeding programs of new cultivars into Penncross to see which procedure offers the least troublesome conversion.

Establishment and persistence of perennial ryegrass fairways in central Illinois (three years; \$5,325 Foundation support; Central Illinois GCSA; Bruce Branham, Ph.D.; University of Illinois). This research

will evaluate 30 perennial ryegrass varieties, 20 creeping bentgrasses and 20 Kentucky bluegrasses for their performances on golf course fairways in Illinois.

An evaluation of native Midwestern plants for use in golf course landscape (three years; \$7,500 Foundation support; Midwest Association of GCS; Tom Voight, Ph.D.; University of Illinois). On three golf courses near Chicago, the investigators will evaluate grass and broadleaf species performance, collect information for a reference book on native plants and explore native plant management options.

Environmental and physiological factors influencing bentgrass summer decline — National Research Program (pending revision and approval; three years; \$48,000 Foundation support; Bingru Huang, Ph.D.; Kansas State University). Researchers will examine the role played by creeping bentgrass root systems in summer bentgrass decline. Genetic variations, cultural practices, environmental factors and physiological mechanisms would come under scrutiny as investigators study root activity during summer stress.