ASA–CSSA–SSA
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2009 International Annual Meetings
Footprints in the Landscape: Sustainability through Plant and Soil Sciences

73-8 Establishment of Warm-Season Putting Green Cultivars with Nitrogen/Potassium Fertilization Ratios.

Monday, November 2, 2009: 3:30 PM
Convention Center, Room 316, Third Floor

John H. Rowland, *Soil Water Science, Univ. of Florida, Davie, FL*

Bermudagrasses [*Cynodon dactylon* (L.) Pers. x *C. transvaalensis* Burt Davy] were primarily used on golf course greens until improved varieties of seashore paspalum (*Paspalum vaginatum* Swartz) and zoysiagrass (*Zoysia* spp.), with claims of reduced fertilizer and water usage, became available. This study was conducted to determine optimum N:K fertilization rates for establishment of selected warm-season cultivars on USGA-specified sand greens. The effects of 1.2, 2.4, 3.7, and 4.9 g N m^{-2} wk^{-1}, and 39.1 g m^{-2} polymer-coated N with 1:1, 1:2, 1:3, and 1:4 N/K ratios on 'TifDwarf' and 'TifEagle' bermudagrasses, 'SeaDwarf' seashore paspalum, and 'PristineFlora' zoysiagrass [*Zoysia japonica* Stued. by *Zoysia tenuifolia* (L.) Merr.] were evaluated. SeaDwarf and TifDwarf were fastest to establish and PristineFlora was slowest. Turfgrass cover for 2.4, 3.7, and 4.9 g N m^{-2} wk^{-1} was similar for all grasses, and additional K was not beneficial. The 2.4 g N m^{-2} wk^{-1} rate was considered optimal for all grasses, as higher N rates did not improve coverage, and increased potential for non-point source pollution.

See more of: Graduate Student Oral Competition: II