Poa annua and Creeping Bentgrass Turf Characteristics During Field Competition. (C05-knievel095842-Poster)

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Abstract:

Poa annua is a common invasive species in bentgrass putting greens in cool temperate climates, but the dynamics and ecology of its persistence and spread is poorly understood. We compared soil and canopy parameters of 10 perennial biotypes of Poa annua inserted as 11-cm diameter plugs in established Penncross and Penn A4 creeping bentgrass turf managed as a putting green over a 3-year period. Canopy temperature and plant water stress index differed significantly between the two grass species and among Poa annua biotypes. In general, Poa annua was warmer and had a slightly higher stress index than adjacent bentgrass. The impact of bentgrass genotype was not significant and no significant interactions involving bentgrass were observed. Similarly, Fv/Fm chlorophyll fluorescence ratio varied among Poa annua biotypes, but not between bentgrass cultivars, and ratios were high for all sampling periods. The relationship between our canopy measurements and Poa annua persistence in the background of creeping bentgrass was subtle and variable for the 10 biotypes studied.

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