Traffic Effects on Bentgrasses Grown as Putting Green Turf. (C05-murphy104246-Poster)

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Abstract:

Improved bentgrass cultivars that have greater shoot density and finer leaf texture have been released for use as golf course turfs during the past decade. The objective of this research was to identify bentgrass cultivars that exhibit an ability to resist annual bluegrass invasion under traffic stress. A field experiment was initiated on a sandy loam, which used a two factor split plot design with 4 replications. The traffic factor (non-traffic, wear, compaction, and wear plus compaction) was arranged as main plots. The 15 subplot treatments were cultivars of creeping (Agrostis stolonifera L.) or velvet bentgrass (A. canina L). The turf was maintained as a putting green turf under a 3 mm cutting height. Plots were evaluated for turf quality, density, and bentgrass population. A significant increase in annual bluegrass invasion was observed in the traffic treatments compared to non-trafficked treatment. Cultivars that produced denser, higher quality turf exhibited good to excellent tolerance to both wear and compaction

and suppressed annual bluegrass invasion. Velvet bentgrass has considerably better tolerance of traffic stresses than previously reported.

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