Using salinity gradient irrigation to evaluate the impact of water quality, turf variety and overseeding practices on turfgrass performance. (C05-stowell193903-Oral)

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Abstract:

The interactions among water quality, overseeding and renovation procedures were evaluated to determine their effects on the quality of Tifway 2 bermudagrass and Sea Isle I paspalum. Using a gradient irrigation system, replicated plots have been irrigated since September, 2000 with one of three water sources that range in EC from 0.84 dS/m to 2.97 dS/m. A negative correlation between soil EC and overseeded turf quality was observed, with soil ECs below 3.0 dS/m supporting the highest quality turf in the initial weeks of establishment. Poor winter color retention in non-overseeded turf led to unacceptable quality for 11 weeks (Tifway 2) and for 14 weeks (Sea Isle I). In contrast, the quality of non-overseeded Sea Isle I was superior to that of Tifway 2 during the late spring and summer months. Overseeded turf performed well throughout the 22 week winter season for Tifway 2 and for 19 out of 22 weeks for Sea Isle I. Heavy renovation procedures were required for optimum quality of overseeded turf in Sea Isle 1, but both heavy and light renovations supported high quality turf inTifway 2. The effect of the above treatments on the 2002 summertime transition will also be discussed.

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