Somaclonal Variation of Creeping Bentgrass Cultivars under Salinity Stress. (C05liu174748-Oral)

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Abstract:

Salinity stress negatively impacts turfgrass quality throughout the world. Creeping bentgrass is the most popular putting green turfgrass and very often salinity becomes a serious limiting factor, particularly along coast areas, or with high salt content irrigation water sources. This study was designed to test the impact of salinity to two creeping bentgrass cultivars 'Penncross', a relative salinity sensitive cultivar and 'Seaside II', a relatively salinity tolerant cultivar using a tissue culture method. The two cultivars were seeded in growing media with NaCl in concentrations of 0, 25, 50, and 100 mM. The differences were found in callus formation, praline content, and electrolyte leakages. 'Seaside II' exhibited a higher concentration of praline, less electrolyte leakage, and more callus formation under salinity stress in comparison with 'Penncross'. Haibo Liu, 864-656-6367, haibol@clemson.edu

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