Multispectral Approaches to Irrigation Scheduling and Moisture Stress Monitoring. (C05-carrow151156-Oral)

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Abstract:

In a study conducted at Griffin,GA under a rainout shelter, 12 turfgrasses were subjected to three dry-down periods to induce drought stress. The grasses included bermudagrasses (4 cultivars); seashore paspalum (3); tall fescue (3); zoysiagrass (1); and St. Augustinegrass (1). Reflectance data were obtained using narrow-band (390-110nm) and wide-band (8 bands including 1200 and 1480nm water bands) multispectral units as well as canopy temperature and visual quality and leaf firing data. Soil moisture extraction in 10mm zones was determined to a depth of 70mm. Models were developed for each grass using both narrow-band and wide-band approaches to predict the onset of drought stress. Results for bermudagrasses will be discussed.

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