A Method for Determining Lateral Shear Strength in Turf. (C05-gaussoin161408-Poster)

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Abstract:

Lateral shear strength (LSS) is a measurement of the natural turf surface's capacity to resist the stress and shearing of vertical and horizontal force applied by a participant during athletic competition, recreational play and other activities routinely conducted on turfgrass. The Federation Internationale de Football Association (FIFA) describes measurement criteria and standards for traction, deformation and slippage which are components of LSS. The devices used by FIFA are relatively expensive and time consuming. A singular method to asses LSS in the field would be valuable to sports turf researchers and possibly managers. Research was conducted at four universities in the USA and a research site near Melbourne, AU to evaluate the Turfgrass Shear Tester (TST) under development by Dr. Baden Clegg (drclegg@iinet.net.au). Data was collected from the NTEP Kentucky bluegrass plots at each location in the US and a perennial ryegrass trial in AU. Preliminary data indicate the TST effectively separated cultivars based on LSS. Additional data will be presented concerning the relationship between LSS and density, sod strength and other

appropriate measurements.

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