## IMPROVING CREEPING BENTGRASS FAIRWAY PERFORMANCE WITH MAGNUS<sup>TM</sup>

This field experiment, located at the W.H. Daniel Turfgrass Research and Diagnostic Center, was conducted by Cale Bigelow and Adam Moeller. Treatments were made to a three year-old mixed creeping bentgrass/annual bluegrass stand grown on a Starks-Fincastle silt-loam with a pH of 7.2 and 1.6% organic matter.

SURFACTANT

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Magnus was applied at the end of June and repeat applications were made every 28 days at the rate of 4 oz. per 1000 sq. ft. All applications were made in the morning then irrigated that evening with approximately 0.25 inches of water.

Turfgrass quality (TQ) was assessed throughout the study using a 0-10 scale with 0=brown dead turf and 10=optimum greenness, density and uniformity. A rating ≥7 was acceptable. Canopy greenness was

quantified using a FieldScout CM-1000 reflectance meter. Soil water content in the upper 2 inches was measured with a Pogo Soil Moisture Sensor from Stevens Water Monitoring Systems, Inc.

In summary, turfgrass quality values ranged from 3.5 to 9.0 throughout the study which varied by treatment. Magnus was superior to the untreated check with study average TQ values of 8.3 and 7.1 respectively. Also, regarding water content, some treatment separation occurred, and Magnus was superior to the untreated check on August 11th and 31st. The study showed that there were benefits to applying a soil surfactant such as Magnus for improving creeping bentgrass TQ, especially during severe summer stress.

## EFFECT OF SOIL SURFACTANTS ON CREEPING BENTGRASS PERFORMANCE Purdue University



BENEFITS OF USING MAGNUS

Improved turf quality

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- Increased volumetric water content
- Decreased localized dry spot (LDS)
- Delayed irrigation after application

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