



Conversion to Creeping Bentgrass Fairways With Overseeding and Plant Growth Regulator Applications

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The conversion of annual bluegrass fairways to creeping bentgrass is a perennial interest of golf course managers throughout the cool-season region. The benefits of creeping bentgrass are its lower fertility, water and pesticide requirements, improved recuperative potential, darker green color and a non-diminishing ground cover in the mid-summer. A study was initiated at the Hancock Turfgrass Research Center to determine the effectiveness of overseeding with creeping bentgrass into an annual bluegrass fairway combined with various plant growth regulator (PGR) applications for conversion to the more desirable species. By slowing the growth of the annual bluegrass with PGR's the germinating bentgrass should gain a strong competitive advantage.

An annual bluegrass fairway was established from seed in 1992. The area received 0.7 lbs. N 1000ft⁻² (Urea) on June 8, 1993 and 1.0 lbs. N 1000ft⁻² (22-0-22) on July 15, 1993. CUTLESS 50W treatments were applied on July 8, 1993 (0.5 and 0.75 lbs. ai A⁻¹) 2 weeks before seeding. Since CUTLESS can be absorbed by roots, the seeding date was 2 weeks after the CUTLESS was applied to prevent seedling growth retardation. The creeping bentgrass "Putter" seed was spread at 1 lb. 1000ft⁻² on July 22, 1993 by both a Ryan Mataway slit seeder, and separately with a drop spreader immediately following dethatching with a Ryan Ren-o-thin. After seeding the area was rolled with a Jacobson Tri-plex with roller attachments. EMBARK 4S and PRIMO 1EC were applied 1 day after seeding at 0.25, 0.50, 1.0 and 2.0 lbs. ai A⁻¹ for EMBARK and 0.07, 0.14, 0.21, and 0.28 lbs. ai A⁻¹ for PRIMO. Plots were not irrigated until 24 hours following the PGR applications. Since EMBARK and PRIMO are foliarly absorbed by grass plants, seed germination and growth should not have been affected by the PGR applications. Creeping bentgrass typically takes 7-14 days to germinate. The study received 0.12 inches of irrigation daily throughout the remainder of the germination period. At the time of seeding the CUTLESS 50W applications had noticeable injury on the annual bluegrass as evidenced by reduced growth and a lighter green color.

Due to the late seeding date, no data were available when this report was prepared. Results will be discussed at the Field Day.