PURDUE STUDIES ANNUAL BLUEGRASS CONTROL

By William Tudor

Creeping bentgrass greens often are invaded by annual bluegrass. Management tools have potential to minimize annual bluegrass encroachment, but their interactions are not well understood. These include root-absorbed plant growth regulators such as flurprimido1 (Cutless), fertility source (46-0-0 vs. 20-20-20), nitrogen application rate (0.15 vs. 0.30 lbs. N/1000 ft²) and soil surfactants.

This three-year field study evaluated the effects of twice monthly applications of the aforementioned products and treatment combinations. Treatments were applied during active growth to a native-soil research green with approximately 30 percent annual bluegrass. The most effective annual bluegrass reductions occurred wherever flurprimido1 was applied. When it wasn’t applied, a fertilizer source and rate effect were measured. Annual bluegrass decreased roughly 25 percent when 46-0-0 was applied at either rate. By contrast, applying 20-20-20 fertilizer increased annual bluegrass 84 percent at the high application rate.

This study demonstrates the potential for flurprimido1 to reduce amounts of annual bluegrass and the potential influence of fertilizer source and rate on annual bluegrass invasion.

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“DEMAND FROM GOLFERS FOR A MORE COMPETITIVE PLAYING SURFACE, COUPLED WITH MERCURY-BASED PESTICIDE RESTRICTIONS, HAS MADE BENTGRASS PUTTING GREENS IDEAL HABITATS FOR MOSS.”

J. Scott McElroy, Ph.D., and Steven Borst, Ph.D.
(see full story on page 39)