



Photo by T. Middlesteadt

Weed-free period for over-seeded bermudagrass

In the transition zone, bermudagrass is over-seeded with perennial ryegrass to improve winter aesthetics on golf courses. However, perennial ryegrass competitively injures bermudagrass. It has been suggested that healthy bermudagrass needs 100 days of weed-free growth, yet research has not tested this claim. Our objective is to measure how duration of perennial ryegrass competition influences bermudagrass health. Studies were conducted on Patriot and Midiron bermudagrass at Virginia Tech. Revolver (foramsulfuron) at 17 ounces/acre (1.2 liters/hectare) was applied weekly for 24 weeks from April 4 to Aug. 29, 2006. Perennial ryegrass left to compete with bermudagrass beyond July 25 (<68 weed-free days) reduced bermudagrass visual cover 10% to 20% in Patriot and 13% to 35% in Midiron. Greater reduction of cover in Midiron indicates 100 days of growth is a safe assumption for less-competitive cultivars, but may be conservative for cultivars like Patriot. — Tyler Middlesteadt and Shawn Askew, Ph.D. (saskew@vt.edu), Virginia Tech University

deep vertical mowing had significantly better fall color and turfgrass quality compared to all other treatments. The results indicate that the management practices in this study did not immediately affect SDS severity, but deep vertical mowing can promote greater plant health when entering the fall transition period. — D. Hunter Perry and Maria Tomaso-Peterson, Ph.D. (mariat@pss.msstate.edu), Mississippi State University

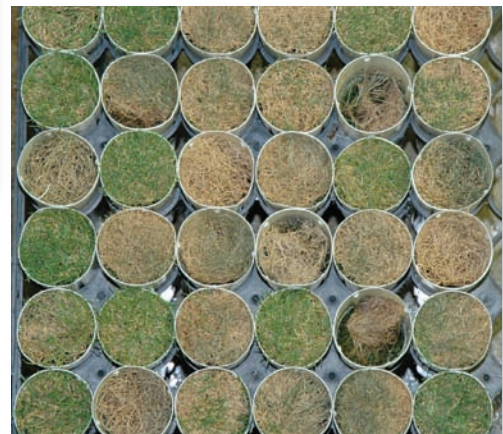


Photo by J. Kerns

Optimal temperature for *Pythium* infection

Pythium root dysfunction symptoms are most common in summer heat and drought stress. Our observations indicate that *Pythium volutum*, a causal agent of pythium root dysfunction, is most active in fall and spring. Soil temperature thresholds for this pathogen must be determined for accurate timing of preventive fungicide applications. Creeping bentgrass plants were inoculated with one of five *P. volutum* isolates and transferred to growth chambers at constant temperatures of 54 F, 61 F, 68 F, 75 F, 82 F or 90 F (12 C, 16 C, 20 C, 24 C, 28 C or 32 C) (12-hour day/night cycles). After four weeks, chamber temperatures were increased to 90 F/79 F (32 C/26 C) day/night to induce foliar symptoms. *Pythium* root dysfunction foliar symptoms developed in the 54 F, 61 F, 68 F and 75 F inoculation temperature treatments. Disease severity was greatest in plants grown at 61 F after inoculation. These results show that *P. volutum* is most active at fall and spring temperatures in North Carolina. — James Kerns, Ph.D. (jpk@plantpath.wisc.edu), University of Wisconsin-Madison and Lane Tredway, Ph.D., North Carolina State University

Managing SDS of bermudagrass

Spring dead spot (SDS) caused by *Ophiophaea korrae* is the most destructive disease of bermudagrass. SDS may occur when cold temperatures induce a winter dormancy period in bermudagrass. The objective of this study was to evaluate the effects on SDS severity on a Tifway bermudagrass fairway of: core aeration (with or without topdressing); deep vertical mowing; and applications of manganese, sulfur or myclobutanil fungicide and a control. In April 2006, there were no significant differences in SDS severity among treatments. Bermudagrass subjected to



Photo by H. Perry

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