First Report of *Ophiosphaerella agrostis* Infecting Creeping Bentgrass in Canada. J. E. Kaminski, Department of Plant Science, University of Connecticut, Storrs 06269; and T. Hsiang, Department of Environmental Biology, University of Guelph, Ontario, Canada, N1G 2W1. Plant Dis. 90:1114, 2006; published on-line as DOI: 10.1094/PD-90-1114B. Accepted for publication 19 May 2006.

Dead spot, also known as bentgrass dead spot or bermudagrass dead spot, is a relatively new disease of golf course putting greens and is caused by the pathogen *Ophiosphaerella agrostis* (1). The disease first was reported on a creeping bentgrass (*Agrostis stolonifera*) putting green in Maryland (2) and since has been identified on putting greens of creeping bentgrass and hybrid bermudagrass (*Cynodon dactylon* × *C. transvaalensis*) in the eastern and southern United States (3,4). In June 2004, disease symptoms resembling dead spot were observed on a golf course in southern Ontario. Small (<3 cm) spots first appeared approximately 14 months after establishment of the sand-based, creeping bentgrass putting greens. The disease became more severe during the summer months and patches increased in size to as much as 5 to 8 cm in diameter. Dead spot infection centers remained visible throughout the winter months and the disease again became active during the spring of 2005. Bentgrass tissues growing adjacent to the periphery of active infection centers were orange-red to reddish-brown. Although dark brown ectotrophic hyphae were observed on bentgrass stolons, none were found on the roots. Few new infection centers occurred in 2005 and pseudothecia embedded within necrotic tissue only were observed in small numbers. No mature ascospores were observed when samples were collected during September 2005. A single fungal morphotype consistently was isolated from leaves and stolons with a rose-quartz color when grown for several days on potato dextrose agar. To demonstrate pathogenicity, ‘L-93’ creeping bentgrass seedlings were grown for 28 days in 10-cm-diameter pots containing an autoclaved greens-mix with a mechanical analysis of 94% sand, 5% silt, and 1% clay. Inoculum was prepared by placing mycelia from a hyphal-tipped isolate on an autoclaved mix of seed of tall fescue (*Festuca arundinacea*) and wheat (*Triticum aestivum*) bran (50% [vol/vol]), and grown at 24°C for 14 days. The inoculum (5 g) was embedded a few milliliters into the sand in the center of each pot (n = 5), and uninoculated inoculum served as the untreated control. Pots were placed in enclosed plastic containers and incubated at room temperature (13 to 26°C) under natural light (replication 1) or under 14 h of light per day from fluorescent lights (replication 2). After 7 days, tissue along the periphery of each inoculation point became covered in a pink mycelium, and newly infected leaves appeared tan or brownish-red. Most plants were dead after 22 to 28 days of incubation. Reisolation of the pathogen from necrotic leaves produced fungal colonies similar in color, morphology, and growth rate to the original isolates. Few pseudothecia developed on infected tissue but were present in large numbers on infected tall fescue seed. Bitunicate asci containing spirally twisted filiform ascospores were observed. Light brown ascospores (n = 50) were 7 to 15 septate and measured 1.9 to 3.6 µm × 60.7 to 147.9 µm. On the basis of field symptoms, morphological characteristics, and pathogenicity tests, the pathogen was identified as *O. agrostis*. To our knowledge, this is the first report of dead spot on creeping bentgrass in Canada and of *O. agrostis* outside the United States.