



Disease Note.

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First Report of *Phytophthora medicaginis* Causing Phytophthora Root Rot on Annual *Medicago* spp. R. L. De Haan, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul 55108 . C. C. Sheaffer, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul 55108; and D. A. Samac, Department of Plant Pathology and USDA-ARS Plant Science Research Unit, University of Minnesota, St. Paul 55108. *Plant Dis.* 80:710. Accepted for publication 12 April 1996. Copyright 1996 The American Phytopathological Society. DOI: 10.1094/PD-80-0710A.

Cultivars and plant introductions of annual *Medicago* spp. seeded into a Phytophthora root rot (PRR) disease nursery in St. Paul, MN, in 1992 and 1993 were evaluated for symptoms of PRR. Plants from all cultivars and most introductions developed symptoms of PRR. Symptoms included damping-off of seedlings, plant stunting, leaf yellowing, and root necrosis. Plant mortality was 18 to 100% depending on the germ plasm. The germ plasm tested included *Medicago littoralis* Rohde ex Lois. cv. Harbinger AR, *M. polymorpha* L. cvs. Santiago and Serena, *M. rugosa* Desr. cv. Paraponto, *M. scutellata* (L.) Mill. cvs. Kelson and Sava, *M. truncatula* Gaertn. cvs. Caliph and Mogul, and plant introductions of *M. polymorpha*, *M. tornata*, and *M. truncatula*. In a greenhouse assay, 7-day-old seedlings of *M. scutellata* cv. Sava and two plant introductions of *M. polymorpha* (PI 368939, SA1327) were inoculated as described previously (1) with two strains of *Phytophthora medicaginis* (M2019 and FDI206, C. Grau, University of Wisconsin, Madison) pathogenic on alfalfa. Symptoms of PRR were rated 14 days later. Both strains caused PRR symptoms on plants from the three germ plasms and *P. medicaginis* was reisolated from diseased roots and hypocotyls. Use of annual medics in the midwestern United States as weed-suppressing smother crops, cover crops in row crop production, and for short season forage crops is currently being investigated. Annual medics are native to regions surrounding the Mediterranean Sea and commercial cultivars have been primarily selected in Australia. Therefore, most germ plasm has not been exposed to many of the pathogens prevalent in the Midwest. Selection and use of disease-resistant germ plasm will be important for successful use of annual medics in midwestern agroecosystems

Reference: (1)J. A. G Irwin et al. *Phytopathology* 69:1051, 1979.

