First Report of *Meloidogyne partityla* on Pecan in New Mexico

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Abstract

For several years, decline was observed in mature pecan (*Carya illinoensis* (F.A. Wangenheim) K. Koch) trees in an orchard in Dona Ana County, New Mexico despite normal fertilization and irrigation practices. Affected trees were growing in sandy soil in two widely separated irrigation terraces and exhibited chlorosis of foliage and substantial die-back of branches in the upper canopy. Examination of feeder roots revealed the presence of numerous small galls and egg masses, with root-knot nematode females often visibly protruding from root tissue. Attempts to culture the nematode on tomato (*Lycopersicon esculentum* Mill. 'Rutgers') were unsuccessful. Females and egg masses were collected from fresh pecan roots and sent to the USDA Nematology Laboratory in Beltsville, MD, in October 2000, where specimens were identified as *Meloidogyne partityla* Kleynhans (1) based on morphological examination. This is the first report of *M. partityla* from New Mexico, and the second report of this nematode outside South Africa. Starr et al. (2) first reported *M. partityla* from pecan in the United States in 1996, after recovering the nematode from five orchards in Texas. In their study, the host range of *M. partityla* was limited to members of the Juglandaceae, which may explain the inability of the New Mexico population to reproduce on tomato. Additional information is needed regarding distribution of this nematode within pecan-growing regions throughout North America.

References: (1) K. P. N. Kleynhans. Phytophylactica 18:103, 1986. (2) J. L. Starr et al. J. Nematol. 28:565, 1996.

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