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## First Report of Columbia Root-Knot Nematode (*Meloidogyne chitwoodi*) in Potato in Turkey

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# plant disease

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## First Report of Columbia Root-Knot Nematode (*Meloidogyne chitwoodi*) in Potato in Turkey

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Columbia root-knot nematode, *Meloidogyne chitwoodi* Golden et al., was identified from potatoes, *Solanum tuberosum* L., collected from Nigde Province, Turkey in September 2006. Seed potatoes are the most likely source for this introduction. The nematode is currently found to be infecting potatoes grown in the Netherlands, Portugal, Belgium, Germany, the United States, Mexico, South Africa, and Argentina. *M. chitwoodi* acquired a quarantine status in Europe (1) because of its potential to become established worldwide and its high damage probability. Some countries prohibit import of both seed and table stock potatoes originating in states known to harbor *M. chitwoodi*. Lesions on the potatoes had discrete brown coloration with white central spots in the outer 1 cm of the tuber flesh. Female nematode densities averaged 3 to 5 per cm<sup>2</sup> of a potato section beneath the lesions. Nematodes were morphologically identified as *M. chitwoodi* based on the perineal pattern of mature females and the tail shape of juveniles. Using PCR-restriction fragment length polymorphism of the 18S region (3) and the mtDNA COII-16S rRNA region (2) and intergenic spacer region between the 5S and 18S genes (4), individual juveniles were identified as *M. chitwoodi* based on their restriction fragment patterns. To our knowledge, this is the first report of Columbia root-knot nematode infecting potatoes in Turkey. The distribution of this nematode in potato fields throughout Turkey should be determined.

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