

# SHORT COMMUNICATION

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## First Report of a *Tylenchulus* sp. on Peach in Alabama, Arkansas, Georgia, and South Carolina

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**Abstract:** A *Tylenchulus* sp. found in a Georgia peach orchard parasitized peach roots in the greenhouse. Citrus roots were not parasitized, indicating that the nematode was not the citrus nematode. Morphologically similar populations were found in one peach orchard in Alabama, two orchards in Arkansas, and one in South Carolina. Males were present in the Alabama populations and one of the Arkansas populations. A population was also found in an area of mixed hardwood and pine in Arkansas. The populations are morphologically different from the citrus nematode *Tylenchulus semipenetrans*.

**Key words:** Alabama, Arkansas, citrus nematode, Georgia, peach, South Carolina, *Tylenchulus*.

The citrus nematode, *Tylenchulus semipenetrans* Cobb, 1913, has been reported on *Citrus* in all major citrus growing regions of the world (1). In the United States the nematode has been reported in Alabama, Arizona, California, Florida, Hawaii, Louisiana, and Texas. The host range of the citrus nematode and its biotypes includes *Andropogon rhizomatus* Swallen, *Diospyros lotus* L., *Mikania batatifolin* DC., *Olea europea* L., *Panicum* sp., *Syringa vulgaris* L., *Vitis vinifera* L., and several species and cultivars of *Citrus* and other members of the Rutaceae. The biology, host range, and distribution of this nematode were reviewed by Tarjan and O'Bannon (2). Recently Inserra et al. (1) found *Andropogon virginicus* L., *Fraxinus caroliniana* Mill., and *Baccharis halimifolia* L. infested by a *Tylenchulus* sp. that was different in morphology from the one on *Citrus*.

A *Tylenchulus* sp. was found in a peach (*Prunus persica* (L.) Batsch.) orchard near Centerville, Georgia, while assaying and comparing nematode populations from

trees exhibiting wilting and nonwilting symptoms. Subsequently *Tylenchulus* sp. females and juveniles were found under two trees adjacent to the original site. Additional infestations were found during routine nematode population monitoring of experiments: one on the USDA ARS Southeastern Fruit and Tree Nut Research Laboratory, Byron, Georgia, and one on the Sand Hills Experiment Station, Pontiac, South Carolina. Males were not found.

*Tylenchulus* sp. females were found in a peach orchard in Alabama. Later a few males were found and the population was tentatively identified as *T. semipenetrans*.

A *Tylenchulus* sp. was detected in Arkansas at three locations: one in woods on the Stanley Farm, Scott County; one in a peach orchard on the Arkansas Fruit Substation, Johnson County; and the third, containing numerous males, in a peach orchard in Independence County. The population from Independence County was distinct from *T. semipenetrans* in tail shape of both male and female and in female stylet length.

In Georgia, pots of steam-pasteurized soil from infested orchards inoculated with picked juveniles and pots of nonsterilized soil from the same infested orchard were planted to grapefruit (*Citrus paradisi* Macf.), lemon (*Citrus limon* Burns F.), orange (*Citrus sinensis* (L.) Osh.), and peach (*Prunus persica* (L.) Batsch.). *Citrus* seed were also

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planted in a greenhouse soil mix (soil : sand : peat moss, 1:1:1 v/v) infested with picked specimens and with infested roots. Roots of test plants were removed and examined for *Tylenchulus* sp. females after 4–6 months, soil was processed by sugar-flotation-centrifugation, and nematode populations were determined. No infection of peach or *Citrus* roots occurred when picked specimens were used as inoculum. Peach roots, however, were infected when planted into unsterilized soil from the infested site. There were no *Tylenchulus* sp. recovered from soil except in pots of unsterilized soil planted to peach.

The *Tylenchulus* population from the peach orchard in Independence County will be further studied for identity, host range, and pathogenicity to peach. This is the first report of a *Tylenchulus* sp. on peach and of a *Tylenchulus* sp. in Arkansas, Georgia, and South Carolina.

#### LITERATURE CITED

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