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Occurrence of potato cyst nematode *Globodera pallida* (stone 1973) in Kerala

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The occurrence of potato cyst nematodes, *Globodera rostochiensis* and *G. pallida* in India was first reported from Ootacamund, Tamil Nadu (Jones, 1961). This nematode is widely prevalent in Nilgiri (Prasad, 1986) and Kodaikanal (Thangaraju, 1983) hills in Tamil Nadu. In the Western Ghats of Kerala (Devicollam Taluk, Idukki district) areas bordering Tamil Nadu, (Pazhathotham) potato is grown to a limited extent. Drastic reduction in size of tubers and yield of potato was observed in this area. Soil samples from these fields were collected and analysed for plant parasitic nematodes. The fields were found heavily infested with potato cyst nematode (average 1 cyst/cc soil and 102 second-stage juveniles/100 cc of soil). The description and measurements of cysts and second-stage juveniles are as follows.

Globodera pallida Cysts: Glossy brown, sub-spherical with protruding neck. Vulval region fenestrated with single circumfenestrated opening, abullate. Anus situated at the apex of a 'V' shaped mark. Anal-vulval distance 55-70 μ m and cuticular ridges between anus and vulva 10-19.

Second-stage juveniles: L = μ m (464-504 μ m); stylet = 23.5 μ m (23-24 μ m); head tip to medium bulb valve = 70 μ m (64-76 μ m); tail = 57.8 μ m (55-68 μ m); hyaline tail = 26.2 μ m (25-27 μ m); tail width at anus = 13.5 μ m (12.5-16 μ m). Vermiform, tail tapering with finely rounded terminus, posterior half hyaline. Head round, offset with 4-6 annules. Stylet knobs well developed, projecting anteriorly.

Based on the morphological characteristics of cysts and second-stage juveniles, the nematode was identified as *G. pallida*.

The spread of the nematode to these new areas in Kerala may be due to transport of infested seed materials from the neighbouring Kodaikanal hills in Tamil Nadu. Strict quarantine measures are required for prevention of further spread of the nematode to nearby areas in Kerala. *Heterodera oryzae*, the rice cyst nematode was the only cyst nematode reported from Kerala on rice (Rao & Jayaprakash, 1978; and Raveendran *et al.*, 1978) and banana (Charles Venkitesan, 1984). This is the first report on the occurrence of golden nematode of potato in Kerala.

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