

RESEARCH NOTE

FIRST REPORT OF *Meloidogyne incognita*, A CAUSATIVE AGENT OF ROOT KNOT DISEASE IN GOTUKOLA (*Centella asiatica* L.) IN SRI LANKA

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The leafy vegetable Gotukola (*Centella asiatica* L.) of the family Umbelliferae (Apiaceae) is grown in many parts of Sri Lanka. Commercial cultivation of Gotukola on a large scale is done at several places including Attanagalla, Danowita, Pasyala, Chilaw, Maha Iluppallama, Ampara, Horana, Marassana and Kadugannawa.

We have previously reported that Gotukola infected by *Meloidogyne* spp. resulted in a considerable yield loss (Wijekoon *et al.*, 2001). In this study, an attempt has been made to identify the species of *Meloidogyne*.

Gotukola plants infected with root knot disease (Fig.1) were collected from six places, namely Gannoruwa (Horticultural Crops Research and Development Institute), Attanagalle, Pasyala, Narahenpita, Piliyandala, and Onegama. Examination of the root knots revealed the characteristic pear-shaped female nematodes in the galls. They probably belong to the genus *Meloidogyne*. Identification of the species was performed by studying the female perineal patterns as described by Taylor and Netscher (1974).

The results obtained indicated that root knot nematodes extracted from Gotukola plants in Gannoruwa (Kandy District) Attanagalle, Pasyala (Gampaha District), Narahenpita, Piliyandala (Colombo District) and Onegama (Polonnaruwa District) were

M. incognita. This was clearly confirmed by the dorsal arch characteristically high and squared in shape (Jepson, 1987), which were present in there perineal patterns (Figs. 2(a) and 2(b)).

The earlier reports revealed that Gotukola in Sri Lanka was infected by *M. hapla* (Sivapalan, 1978) and *M. arenaria* (Ekanayake *et al.*, 1997). This is the first report of infection of *C. asiatica* by *M. incognita* in Sri Lanka.



Fig.1 . *C. asiatica* infected with *Meloidogyne incognita* showing symptoms in shoot (wilting and leaf yellowing) and in root (numerous galls with short and extensively branched root system).

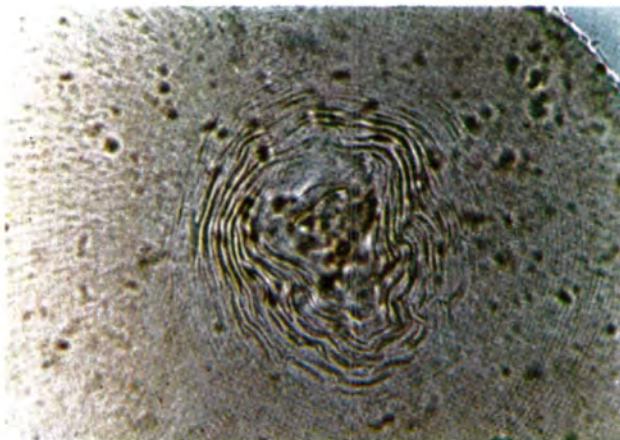


Fig. 2(a)

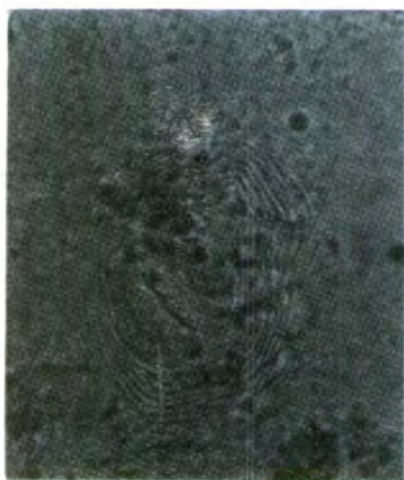


Fig. 2(b)

Figs. 2(a) and 2(b). The characteristic perineal patterns of *M. incognita* - Arch roughly oval, wavy to zig-zag, dorsal arch generally high and squared in shape.

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