

THE DISTRIBUTION AND INTENSITY OF ATTACK OF ROOT-KNOT  
NEMATODE SPECIES (MELOIDOGYNE SPP) AMONGST CULTIVATED  
CROPS, IN THE DIFFERENT AGRO-ECOLOGICAL  
REGIONS OF SRI LANKA

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One of the important limiting factors to productivity of food and fibre crops in developing nations is the damage caused by plant parasitic nematodes, especially the root-knot nematodes, *Meloidogyne* spp. In an all-island survey for root-knot nematode infestation, which included the sampling of various field crops, vegetable, fruit and miscellaneous crops, 49 hosts were recorded for *Meloidogyne incognita*, 26 for *M. javanica*, eight for *M. arenaria* and three for *M. hapla*. In general, *M. incognita* was the dominant species in all three major ecological zones (wet, intermediate and dry zones). *M. javanica* was encountered frequently in the dry zone, less often in the intermediate and least in the wet zone. *M. arenaria* and *M. hapla* were found rarely and these were limited to the cooler regions of the wet and intermediate zones only. *M. brevicauda* was encountered in only one host (very old tea) and also only in three tea estates, all bordering the same jungle (above 1800 m).

Amongst the 20 indicator plants that were checked in the different agro-ecological zones, those that were frequently infested with these pests (more than 60% of the samples) included: beet, bitter gourd, cowpea, egg plant, green gram, okra, red pepper, spinach, tobacco and tomato. The plants that were seldom infested (less than 30% of the samples) included: plantain, potato, soya beans and yams. The crops that were most often found heavily infested included: black gram, green gram, okra, spinach and tomato. Groundnut, onion and sunnhemp were never found attacked by these pests and the susceptible hosts following these crops were found to be only mildly attacked, if not free of infestation. The latter three crops appear to hold promise in a cropping system that could be developed to minimize depredations by these pests.

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