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Distribution and incidence of root-knot nematodes, *Meloidogyne* species associated with selected leafy-vegetable species in Matara District

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Distribution and prevalence of root-knot nematodes, *Meloidogyne* spp., associated with four leafy vegetable species, i.e., "Gotukola" (*Centella asiatica*), "Kangkung" (*Ipomea aquatica*), "Mugunuwenna" (*Alternanthera sessilis*) and "Thampala" (*Amaranthus oleraceus*) grown at 15 localities in Matara district were determined by means of a survey during June 2005 - April 2007. At each locality, fifty individual root systems from fifty individual plants were inspected for the presence of root-galls based on the visual symptoms or at random. Out of these root systems, at least ten infested root systems were assessed for the percentage root system galled. *Meloidogyne* species were identified up to the species level using perineal pattern morphology of mature females.

Meloidogyne incidence was detected only on three leafy-vegetable species, i.e., "Kangkung", "Mugunuwenna" and "Thampala". No *Meloidogyne* infestations were found associated with "Gotukola" at any of the field surveyed. In contrast, about 60% of "Mugunuwenna" and "Thampala" and, 40% of "Kangkung" fields sampled showed *Meloidogyne* infestations. Three *Meloidogyne* species were found, i.e., *M. arenaria, M. incognita* and *M. javanica. Meloidogyne incognita* was identified as the most distributed and prevalent species associated with these leafy-vegetable species tested at all the locations. Often, these nematode species occurred in mixed populations in root systems. However, in some occasions, *M. incognita* occurred as the pure population. Incidence of *M. javanica* was not detected in Mugunuwenna. High percentage root galling was detected on Mugunuwenna indicating potential interference with the shoot growth.

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