

**Preliminary survey of root parasitic nematodes of rice (*Oryza sativa*) in Gampaha district and possible alternative hosts of rice root-knot nematode (*Meloidogyne graminicola*)**

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A preliminary survey was carried out in Gampaha district to find out distribution of root parasitic nematodes of rice during March 2003 and December 2003. Alternative hosts for *Meloidogyne graminicola* also were identified during the study period.

Eight sampling sites in Gampaha district were selected for the survey that included four sub sites in each site. From one sub site three paddy fields were chosen. Each paddy field represented with three randomly selected rice plants. For sampling, 30 g of roots from each rice plant and 100 g of soil around the plant was taken. Soil and root samples were extracted for nematodes separately.

For identification of alternative hosts of *Meloidogyne graminicola*, eight species of vegetable and cereal crops that are been used for rotation programme in the district and five species of weeds were selected.

*Hirschmanniella oryzae*, *Helicotylenchus crenacauda* and *Meloidogyne graminicola* were identified in root samples but in soil samples parasitic nematodes were not detected. Log values of the nematode population densities were analyzed using one-way ANOVA test and pair wise comparisons by Tukey's test. *H. oryzae* was the most abundant species among sub sites and this species was found from all the sites. *Meloidogyne graminicola* was equally distributed only found among five study sites. *Helicotylenchus crenacauda* was low in number and found only from one site. Two vegetable crops as *Hibiscus esculentus* and *Trichosanthes anguina* were subjected to gall formation by *Meloidogyne graminicola* and hence cannot be used for crop rotation programme. Two weeds *Cyperus rotundus* and *Bajiri* (S) were identified as major alternative hosts of *Meloidogyne graminicola*.

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