

**Nematodes associated with banana (*Musa spp*) cultivations in selected sites in Gampaha district in Sri Lanka**

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Species of plant root nematodes associated with banana plant and their abundance in the selected locations within Gampaha district, Sri Lanka was studied in this research study. Two types of banana fields were mainly considered. One type of that was banana field at home backyards and the other type was banana fields at roadsides which are not maintained by any person. In addition to those, a banana plantation which is commercially maintained was also studied. Meanwhile five sampling fields within Veyangoda area were studied during the study period to study the temporal variation of soil nematodes. Farmers are unable to identify nematodes and their damage. Survey on plant nematodes is important to inform farmers for good yield.

The identified root parasitic nematodes were *Helicotylenchus multicinctus*, *Radopholus similis* and *Hoplalaimus* sp. No significant difference was identified in their abundance within the banana fields at home backyards and the banana fields at roadsides. The abundance of the free living species was higher in the banana fields at home back yards than that of banana fields at roadsides.

According to statistical analysis, abundance of *H. multicinctus* is significantly higher than *R. similis* in the same habitat. Abundance of total parasitic nematodes and the abundance of free living species within the same habitat were significantly different. *Hoplalaimus* sp. is concerned as a minor pest on banana. And the recorded abundance of *Hoplalaimus* sp. and their damage was negligible.

Banana root nematodes were not found within the commercially maintained banana plantation. And no relationship was found between the abundance of banana root nematodes and the physico-chemical parameters of soil. Only the abundance of *R. similis* showed a considerable temporal variation during the study period. Abundance of *R. similis* was significantly decreased in dry weather conditions and the low moisture content in the associated soil.