

Abstract

Aims: This study was conducted to determine the effect of selected soil chemical characteristics on the occurrence of entomopathogenic nematodes (EPNs) under different land uses in Embu and Taita Districts in Kenya.

Study Design: The sampling points were systematically marked in a grid-mesh construction using GPS marking.

Place and Duration of Study: Soil sampling was done between January 2008 and May 2008 in Embu district in the highlands of Central and Taita-Taveta district in the Coastal highlands of Kenya.

Methodology: EPNs were baited from soil using *Galleria mellonella* larvae and infective juveniles identified using morphological- biometric characteristics. The nematode occurrence was evaluated through relative abundance and recovery frequency expressed as percentage from the soils.

Results: EPNs were detected in 43.3% of the samples with *Steinernema spp* being the dominant species. The occurrence of EPNs is affected by selected soil chemical properties, land use systems and heavy metals.

Conclusion: Soil fertility management practices and heavy metals influence the occurrence of EPNs and should be considered for their effective use as biological control agents.