

PLANT PARASITIC NEMATODES OF TROPICAL FRUITS WITH EMPHASIS ON BANANA IN MALAYSIA

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Introduction

Plant parasitic nematode is the least known pest in the agriculture crops in Malaysia. Biodiversity in the population of the nematodes in the root rhizospheres often pose problems in instituting an effective control for optimum crop yield. Host specificity among nematode species can manifest different pathogenic reactions on the same crop species. Several species can concurrently be present in the root rhizosphere. Similarly species that are considered economically less important on banana in Africa can be pathogenic to the banana crop in Malaysia.

Materials and Methods

Soil and root samples were collected from the root zone food, ornamentals plants were collected from the various parts of Peninsular Malaysia. The nematodes were extracted, processed for permanent slides and Scanning Electron Microscopic observation. Base on the morphometrics, the plant parasitic nematodes were identified to the species level.

Results and Discussion

1). Eleven species of *Xiphinema* were identified from the root rhizosphere of the crops, of which two are new species, identified as *X.winotoi* and *X.campaki*. Detail descriptions of

the species are described in Razak and Loof (1998). 2) Four species of *Meloidogyne* have been identified and found to be associated with the growth decline of the plants associated with. On banana, the use of untreated soil in raising the seedlings in the nursery resulted in the widespread presence of *M. javanica* in the roots of the plants in the field. Likewise lax enforcement of the quarantine law at the point of entry resulted in the importation of *M.graminis* (Razak and Bojang, 1998) to the country, which had associated with non-uniform coverage of the greens in the golf courses of at least two golf courses in the country. The species had only been reported on the golf courses in the southern part of the United States. Many of the padi growing areas in the country had been infested by *M.graminicola* (Kruger and Razak, 1998). The identification of other nematode species are currently being carried out.

Conclusions

Species of nematode associated with the local agriculture crops is presently far from sufficient. Thus the implementation of the quarantine regulations has often been challenged by importers of plant materials from other countries. There is a need for a list of nematode species that are already present in the country.

References

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