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RESEARCH NOTE

Nematodes Associated with Coconut (Cocos nucifera L.) In Sri Lanka

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Very little information was available on the presence and distribution of pathogenic nematodes associated with coconut in Sri Lanka. To investigate the occurrence and distribution of plant parasitic nematodes in coconut plantations a survey was conducted in 1979 and 1980 in 12 districts. A total of 89 coconut plantations were visited and sampled in the districts of Ambalantota, Anuradhapura, Kegalle, Kurunegala, Matale, Matara, Chilaw, Nuwara-Eliya, Polonnaruwa, Puttalam, Ratnapura and Vavuniya.

Samples of roots and the soil around the root system were taken. Samples of stems were also drawn whenever a nematode infestation was suspected. The samples were placed in polythene bags until they were processed in the laboratory. Nematode extraction was carried out on sub samples of 500 ml aliquots obtained after thorough mixing of the soil samples and maceration of the root and stem samples. The soil nematodes were extracted by the "Cobb wet seive" technique, and stem and root nematodes were extracted by the incubation method.

Although the roots and stems showed symptoms such as discoloration, necrosis and abundance of rootlets, nematodes were not found within any of the plant samples. The most common plant parasitic nematodes extracted from the soil samples were *Xiphinema basiri* Siddiqi *X. insigne* Loos, *X. diffusum* Lamberti et Bleve Zachcheo, *Xiphinema* sp,. *Paralongidorus* sp., *Hoplolaimus* sp. and *Rotylenchulus* sp. In two plantations at Mirigama and Giridara which were in the stage of decline, the rhizosphere showed very high popu:-lations of *X. insigne* and *X. basiri*, respectively. However, no plant parasitic nematodes were detected inside the plant parts.

Xiphinema species are known to be ectoparasites. Further studies are however necessary to determine their pathogeniceity in coconut and the economic threshold levels.