

C. Ramesh
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**Record of *Radopholus similis* (Cobb, 1893)
Thorne, 1949 and other plant parasitic
nematodes from coconut palm,
Cocos nucifera L.**

Positive results obtained in soil transmission trials of the root (wilt) disease of coconut⁴ led to the suspicion of plant parasitic nematodes as possible agents of its spread and consequent initiation of investigations on nematodes of coconut at the Central Coconut Research Station, Kayangulam. Nadakal⁵ has given an exhaustive review of literature on nematodes of coconut, which is rather meagre. The occurrence of *Rotylenchus* sp.² and *Rhadinaphelenchus cocophilus*⁹ in association with 'red ring disease' of coconut in Trinidad and the suspected association of *Rotylenchulus* sp.¹⁰ with 'lethal yellowing' of coconut in Florida, besides the record of free living cephalobid *Metacrobeles* in Tongo³ and rhabditid *Panagrolaimus* in Kerala⁶ are the few important observations in this direction. Present study revealed the presence of fifteen different genera of plant parasitic nematodes in association with coconut palm. Incidence of *Radopholus similis* within the fleshy tips of tender roots of coconut (*Cocos nucifera* L.) is new record for the rather wide host range of this endoparasite, as listed by Christie.¹ Nair

*et al.*⁸ recorded it from this state on banana, causing rotting roots and withering leaves and bunch. Coconut roots were washed under running water to remove all soil particles adhering to them and their outer thin skin was removed. They were then cut into small pieces and kept immersed in water in glass trough overnight. Large number of these burrowing nematodes were then observed in the water.

Among others noticed in the rhizosphere of coconut (modified Baermann funnel technique), presence of *Xiphinema* (2 spp.) and *Longidorus*, the latter found in comparatively larger number, is of special significance because of the suspected virus origin of the root (wilt) disease of the palm.⁷ Other vagrant forms isolated are the species of *Tylenchorhynchus*, *Hoplolaimus*, *Helicotylenchus*, *Dolichodorus*, *Pratylenchus*, *Rotylenchus*, *Criconema*, *Hemicyclophora*, *Hemicriconemoides*, *Criconemoides*, *Paratylenchus* and larvae of *Meloidogyne*. The host-parasite relationship of these species, their role, if any, as primary parasites effecting any serious damage or as disease incitants letting in secondary pathogens and transmission trials with virus-transmitting forms are problems now being attended to.

K. MATHEN
CHANDY KURIAN
S. B. LAL

Central Coconut Research Station,
Kayangulam, Kerala.
Recd. 23 February, 1968.

- ¹ J. R. Christie, Plant Nematodes, 1959, pp. 104-107 (University of Florida).
- ² D. W. Fenwick and S. Maharaj, *Nature*, **185**, 259, 1960.
- ³ P. A. A. Loof, *Nematologica*, **7**, 114, 1962.
- ⁴ K. P. V. Menon and P. Shanta, *Curr. Sci.*, **31**, 153-154, 1962.
- ⁵ A. M. Nadakal, *J. Sci. & Ind. Res.*, **24**, 128-135, 1965.
- ⁶ *Ibid.* *Science & Culture*, **31**, 157-158, 1965.
- ⁷ A. N. Nagaraj and K. P. V. Menon, *The Indian Coconut J.*, **9**, 161-165, 1956.
- ⁸ M. R. G. K. Nair, N. M. Das and M. R. Menon, *The Indian J. Ent.*, **28**(4), 553-554, 1966.
- ⁹ W. Nowell, *W. Ind. Bull.*, **17**, 203, 1920.
- ¹⁰ M. Ollagnier and G. Weststeign, *The Indian Coconut J.*, **16**, 30, 1963.

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