

OCCURRENCE OF ROOT-KNOT NEMATODE *MELOIDOGYNE INCOGNITA* AS A PEST OF RUBBER (*HEVEA BRASILIENSIS*) SEEDLINGS

Incidence of root-knot nematode (*Meloidogyne incognita*) has not been serious in rubber (*Hevea brasiliensis*). However, occurrence of root-knot nematode has been reported from Malaysia (Rao, 1965), India (Raveendran and Nadackal, 1975; Rajendran and Jayarathnam, 1977), Vietnam (Erashenko *et al.*, 1985) and Brazil (Lordello *et al.*, 1989). Rao (1965) also reported the incidence of root lesion nematodes *Pratylenchus coffeae* on rubber in Indonesia. Incidence of *M. incognita* on leguminous cover crops grown in association with rubber has been reported from India (Mammen, 1973). Thankamony *et al.* (1989) observed differences among five leguminous covers in respect to their reaction to infestation. The attack noticed in rubber so far was in isolated plants and was of no significance. But recently, the attack of this nematode has been noticed in a patch of area each in Kadackamon and Perumpulickal nurseries (Kerala, India) of the Rubber Board, indicating its slow establishment and potential threat to rubber seedlings. Root-knot nematode infested rubber seedlings had conspicuous swellings on the lateral roots or root-lets. (Fig. 1). A fairly large number of seedlings exhibited symptoms of wilting and dwarfing as well as discolouration and shedding of leaves. Severe attack led to mortality of the seedlings. The galls on severely infested rootlets were 1 to 4 mm in diameter and contained 2 to 4 adult females.

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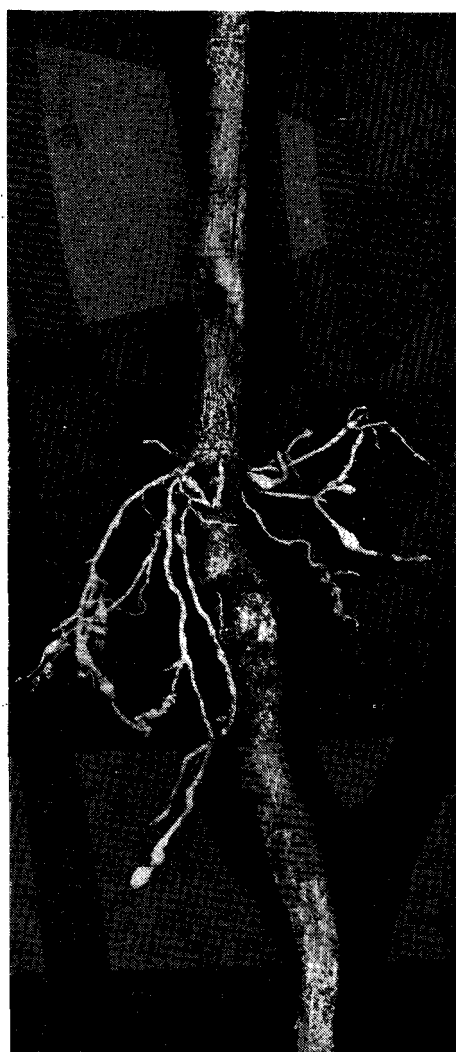


Fig. 1. Root-knot nematode infested rubber seedling (7 months old)

REFERENCES

- Erashenko, A. S., Nguen Ngok T'yau, Naguen Vu Tkhan' and Doan Kan' (1985). Parasitic plant nematodes of North Vietnam. (Ed. Krall', E.L.). Nauka, Leningradskoe otdelenie, Leningrad.
- Lordello, A.I.L., Lordello, R.R.A. and Cardoso, M. (1989). Pest resistance of young rubber (*Hevea*) trees to *Meloidogyne incognita* races and *Meloidogyne javanica*. *Nematologia Brasileria*, **13**: 189-193.
- Mammen, K.V. (1973). *Meloidogyne incognita* infesting the cover crops of rubber in Kerala. *Current Science*, **42**(18): 659.
- Rajendran, T. P. and Jayarathnam, K. (1977). On the occurrence and effect of nematode infestation in rubber plantations. *Indian Journal of Nematology*, **7** (1): 82-83.
- Rao, B. S. (1965). *Pests of Hevea Plantations in Malaya*. Rubber Research Institute, Kuala Lumpur, Malaya.
- Raveendran V, and Nadackal, A.M. (1975). An additional list of plants infected by the root-knot nematode, *Meloidogyne incognita* (Kofoed & White, 1919) Chitwood, 1949 in Kerala. *Indian Journal of Nematology*, **5** (1): 126-127.
- Thankamony, S., Nehru, C.R. and Jayarathnam, K. (1989). Preliminary observations on reaction of leguminous cover crops to root-knot nematode. *Indian Journal of Natural Rubber Research*, **2** (1): 68-69.

C. R. Nehru

S. Thankamony

K. Jayarathnam

Rubber Research Institute of India
Kottayam-686009. India

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