

OTHER HOST RECORDS OF *RADOPHOLUS SIMILIS*

BY

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Host-range of the burrowing nematode, *Radopholus similis* (Cobb, 1893) Thorne, 1949 infesting coconut palm in South India was reported earlier (Koshy & Sosamma, 1975; Sosamma & Koshy 1977). Eighteen plant species were screened for infestation with *R. similis* in 10 cm earthen pots during August 1978 and 1979. The inoculum level used was 500 active specimens (females and larvae) suspended in 10 ml of water. Observations were recorded after 4 months. Among the 18 plant species tested, nine were recorded as hosts. Except for *Erythrina lithosperma* and *Daucus carota* all are new host records for *R. similis* (Table I).

TABLE I

*Status of plants tested as hosts of R. similis*

Family	Genus, species	Common name	Host status
Anonaceae	* <i>Polyalthia longifolia</i> Bonth.	Indian fir	H
Portulacaceae	* <i>Talinum cuneifolium</i> Wild		H
Vitaceae	<i>Cissus quadrangularis</i> L.	'Changalaparanda'	NH
Anacardiaceae	<i>Anacardium occidentale</i> L.	Cashew tree	NH
Leguminosae	<i>Erythrina indica</i> Lam.	Coral tree	H
"	<i>E. lithosperma</i> Blume		H
Myrtaceae	<i>Eugenia jambos</i> L.	Rose apple	NH
Umbelliferae	<i>Daucus carota</i> L.	Carrot	H
Solanaceae	<i>Datura fastuosa</i> L.	Hind	NH
Piperaceae	* <i>Piper betle</i> L.	Betel pepper	H
Lauraceae	<i>Cinnamomum zeylanicum</i> Blume	'Vazhana'	NH
Scitamineae	* <i>Curcuma amada</i> Roxb	Mango ginger	H
"	* <i>Kaempferia galanga</i> L.	'Kacholam'	H
"	<i>Ravenala madagascarensis</i> Gmel	Travellers tree	NH
Palmeae	<i>Chrysalidocarpus lutescens</i> H. Wendl.		NH
"	<i>Licuala grandis</i> H. Wendl.		NH
"	<i>Livistona</i> sp.		NH
"	* <i>Rhaphis excelsa</i>		H

H—host

NH—non host

\*—new host records

## REFERENCES

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- SOSAMMA, V.K. and KOSHY, P.K. (1977). Additional hosts of the burrowing nematode, *Radopholus similis* (Cobb, 1893) Thorne, 1949 infesting coconut palm in South India. *Plant Dis. Repr.* **61** : 760-761.

## EFFECTIVE DURATION OF SOME PROVEN NEMATICIDES IN CONTROL OF ROOT-KNOT DISEASE IN BIDI TOBACCO NURSERY

BY

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Reports are variable with regard to the duration of effectiveness of nematicides in controlling root-knot disease, it is apparent that some nematicides do provide protection. The authors have encountered difficulties in raising disease free seedlings of tobacco during the full range of the nursery period (about 3 months). It was hence thought desirable to determine the duration of effectiveness of certain selected nematicides in control of root-knot disease in nursery.

A microplot experiment was conducted at the Bidi Tobacco Research Station, Anand during 1977-78 and 1978-79. Different nematicides used were: aldicarb, carbofuran, ethoprophos and fensulfthion each at 4 kg a.i./ha, metham-sodium at 80 l a.i./ha., DD soil fumigant at 500 l/ha, DBCP surface application at 15 l and 30 l a.i./ha and deep application (30 cm deep) at 15 l a.i./ha. An untreated check was also maintained.

These treatments were replicated six times in a randomized block design. The seed germination (Var. G.T. 4) was recorded in all six replications 15 days after sowing. Transplants were pulled out as and when ready and recorded. Finally, remaining seedlings were counted to work out total seedling population in each treatment. For disease index, the seedlings were graded using the scale of 0 to 5 and disease index was worked out as follows.

$$\text{Disease Index} = \frac{\text{Total numerical rating}}{\text{Total number of seedlings examined}}$$

The results (Table 1) indicated that seed germination was significantly higher in beds treated with DBCP @ 15 l a.i./ha (surface) than in beds treated with carbofuran, DBCP (deep), fensulfthion and untreated check. However, it was at par with aldicarb, DBCP @ 30 l a.i./ha (surface), DD, ethoprophos and metham-sodium.

Number of transplants was maximum in case of beds receiving DD @ 500 l/ha. Beds fumigated with DBCP @ 30 l a.i./ha (surface) were next in order. It was minimum in aldicarb