

Dying back of twigs from tip downwards and defoliation of the young branches resulting in loss of vigour, general health and production of a tree were the chief symptoms of the disease. There was a tendency towards partial recovery followed by secondary growth consisting of weak shoots with small leaves (figure 1) or masking of the symptoms but late in the season it brought back the original symptoms. Defoliation was associated with die-back of young twigs and this extended to the whole branch resulting ultimately in the death of the tree.

The pathogenicity of the isolate was confirmed by various inoculation experiments (figure 2).

The identification of the fungus has been confirmed by the Division of Mycology, IARI, New Delhi. A survey of literature revealed that the disease has not been reported earlier from India.

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CHEMICAL CONTROL OF *DENDROPHTHOE FALCATA* ON TEAK THROUGH TRUNK INJECTION: A PRELIMINARY FIELD STUDY

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CONTROL of woody angiospermic parasites on trees through infusion of chemicals and hormones has been attempted in India and abroad¹⁻³. But these efforts did not make much headway because of lack of proper selective chemical(s) and an appropriate method of application. Keeping in view the problem of application technique, we developed a cheap tree injection technique for infusing water soluble chemicals in trees⁴. Using this infusion technique we tested the efficacy of a number of weedicides for selective killing of the parasite, *Dendrophthoe falcata* var. *pubescens* Hook. f. which is one of the most destructive parasite on teak (*Tectona grandis* L.f.).

As there is no standardised laboratory testing technique the experiment was carried out in a 32 year-old teak plantation. For screening of the weedicides, we directly injected aqueous solution of the chemicals in different concentrations to the trees in the morning. Among the weedicides tried, Sencor (Metribuzin) supplied by Bayer India Ltd, gave encouraging results when 600 ml aqueous solution of 0.25% a.i. (lowest concentration) was infused.

Two weeks after the treatment, the parasite showed heavy defoliation followed by drying back of the twigs. After two months parasites on these trees were dead and dried completely. No harmful effect was observed on the host tree even one year after the treatment.

Copper sulphate and 2,4-D compounds reported as effective earlier¹⁻³, did not show any selectivity in our experiments. All of them were found harmful to the parasite, immediately after the application and to the host in the long run. Further experiments to find out the required dose depending upon the age and size of the tree and proper time of infusion of the chemical are in progress in pilot scale field trial.

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1. Brown, A. G. and Greenham, C. G., *Aust. J. Exptl. Agril. Animal Husbandry.*, 1965, 5,305.
2. Kadambi, K., *Indian For.*, 1954, 80, 493.
3. Seth, J. N., *Hort. Advance.*, 1957, 1,79.
4. Ghosh, S. K. and Balasundaran M., *Curr. Sci.*, 1980, 49, 827.

A NEW FRUIT ROT OF *CARISSA*

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A SEVERE fruit rot of *Carissa carandas* L. popularly known as 'Karaunda' has been observed in the fruit market at Orai (Bundelkhand), during a survey of pre and post harvest diseases of fruit crops. The pathogen was identified as *Pestalotiopsis versicolor* (Speg.) Steyaert (IMI No. 163832). Reisolations always yielded the same fungus confirming to Koch's postulates.

The disease started on the fruits from the point of injury on the surface. In the initial stage, the spots were light brown if developed on the pink skin, while those appearing on the yellow skin, caused discolouration. The spots increased rapidly either in circular or irregular manner. As the disease progressed, the diseased portion became wrinkled and turned dark brown in colour. Black, minute, single or gregarious acervuli with viscid spore masses appeared on the diseased tissues. In the later stages wrinkling became more prominent and ultimately the whole fruit rotted within 10 days. The flesh of the infected fruits appeared dark brown in colour, when the fruit was cut open. This constitutes the first record of fruit rot of *C. carandas* by *P. versicolor* from India.

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