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Reprinted from "Curr. Sci.", April 20, 1970, 39, No. 8, 188-189

P. O. Kadu,
Kasaragod (India)

RP-343

DISTRIBUTION OF ROOT (WILT) PATHOGEN IN DEVELOPING SEED COCONUTS

A SAP transmissible virus was reported to be associated with the root (wilt) disease—a serious menace of coconut in Kerala.¹ The disease was also found to be transmitted by an insect vector *Stephanitis typicus* Distant² and through soil.³ Cowpea (*Vigna sinensis* Endl.) was used as the indicator host for transmission studies.⁴ During the course of further investigations, the pathogen was also detected from the pollen of diseased palms. The possibility of the occurrence of the pathogen in the different parts of developing nut was therefore investigated and the results are presented in this note.

Twenty-four coconut trees in early and advanced stages of disease were selected for the study. Nuts under different stages of development were collected from these palms and mechanical inoculations with various parts, viz., husk, kernel and embryo were carried out on 8-day old cowpea (*Vigna sinensis* Endl.) seedlings, grown in insect-proof screen house. Inoculated seedlings were incubated at 75° F. for 24 to 48 hours to ensure good infection. Samples of nuts from twelve trees in advanced stage of infection consistently gave positive

infection, whereas those collected from the twelve palms in the early stages of disease did not. Similar tests with parts of nuts collected from comparable number of healthy trees gave no infection at all. In subsequent trials, positive results were also obtained with different parts of sprouting nuts collected from highly diseased palms—plumule, kernel and haustorium, when tested on cowpea seedlings.

Occurrence of the wilt pathogen in different parts of developing nuts is interesting and the possibility of the pathogen being carried to the young growing shoot is being studied.

Central Coconut Res. Station,
Kayangulam,
Kerala, November 29, 1969.

N. GOPINATHAN PILLAY,
P. SHANTA,
S. B. LAL.

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