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### OIL-PALM (*ELAEIS GUINEENSIS* JACQ.), A NATURAL HOST OF ROOT (WILT) DISEASE PATHOGEN OF COCONUT

ONE year old seedlings of oil-palm (*Elaeis guineensis* Jacq.) were planted in the research farm of this station where the incidence of root (wilt) disease is very high to observe their reaction to the disease. The seedlings were recently reported to colonise the lace wing bug (*Stephanitis typicus* Dist.), the vector of the root (wilt) disease of coconut.<sup>1</sup> A large number of seedlings began to exhibit pronounced flaccidity of leaflets resembling that of root (wilt) infected coconut trees during the course of this year. Observations on symptoms and diagnostic tests on the cowpea indicator host were carried out with the seedlings. The details are presented.

Oil-palm seedlings were raised from seeds variety Deli × P received from the Chemara Plantations, Layang Layang, Malaya, in 1963. Fifty-nine seedlings were transplanted in the research farm with root (wilt) diseased coconut trees all round in 1964. Twenty-nine seedlings had already exhibited symptoms of flaccidity and drooping of leaflets (Fig. 1) by 1969. The leaves of the affected palms were slightly paler than normal. Infection trials with all the 59 seedlings were carried out on cowpea (*Vigna sinensis* Endl.) indicator host for the root (wilt) disease pathogen of coconuts.<sup>2</sup> Adults of *S. typicus* were used for transmission tests by feeding for 24 hours on young green leaves of test material and then liberating them on healthy test plants. Diagnostic symptoms of necrosis and distortion of the first trifoliate leaves were produced with 14 palms out of 29 showing symptoms of disease. It was also observed that a large number of oil-palm seedlings got diseased at or about the commencement of flowering.

The symptoms of flaccidity and drooping of leaflets in oil-palm seedlings together with slight paling, transmission of the disease through *S. typicus* and production of diagnostic symptom on cowpea seedlings are indicative of root (wilt) disease of coconuts infecting the oil-palms in nature.



FIG. 1. Single leaf of healthy (left) and diseased (right) oil-palm.

The susceptibility of the oil-palm to the root (wilt) disease of coconut in nature is of a special significance since it is being introduced in Kerala as a promising commercial crop.

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2. Shanta, P. and Menon, K. P. V., *Virology*, 1960, 12, 307.