ASSOCIATION OF FUNGI WITH COCONUTS PRODUCING RUBBERY COPRA IN ROOT (WILT) AFFECTED AREAS

V.G. LILY[1] AND N.G. PILLAI[2]

Production of nuts with poor quality and copra of rubbery nature is observed in coconut palms of root (wilt) affected tracts (Pillai, et al, 1975). The incidence varies from 2 to 10% in disease affected gardens. Softening of the husk with discoloured patches on it, thinning of the husk and shell, blackening of the shell, rubbery nature of the copra with low oil content and reduction in size of the nuts are observed to be the most prominent symptoms (Fig. 1). Investigations on the nutritional aspects of the disease did not indicate sulphur deficiency (Annual Report, 1974) which was reported to be associated with occurrence of rubbery copra in Papua and New Guinea (Southern, 1969). The results of investigation on the possible association of fungi in the incidence of this phenomena is reported in this note.

Nuts were surface sterilized by direct flaming with ethanol and tissues from different parts were plated in 3% husk extract medium. This medium was found to be most suitable for isolating the organisms.

The results revealed that four fungi, *Phomopsis (Diaporthe arctii)*, *Botryosphaeria rhodina (Lasiodiplodia theobromae)*, *Acremonium recefi*, *Fusarium lavanum* and a sterile fungus were present only in the husk of diseased nuts. *Pestalotia palmarum*, *Thielaviopsis paradoxa* were common both in healthy and diseased nuts. *B. rhodina* was found to occur both in husk and also in discoloured shell of the affected nut.

B. rhodina (*Lasiodiplodia theobromae*) *Phomopsis* (*Diaporthe citri*) is reported to be pathogenic fungi (Booth, et al, 1973). *Acremonium* sp. is known to cause sugarcane wilt (Singh and Singh, 1974) and *Diaporthe citri* as pathogen to incite melanose disease in citrus fruit (Ushiyamma, 1973) wilt and death of apricot seedlings (Dzagnidze, 1974); and as causal agent for Canker of Eucalyptus in Brazil (Hodges and Reis, 1975). The significance of these fungi is yet to be established in coconut. Studies on pathogenicity of the above fungi and trials with fungicides to control the disease are in progress.

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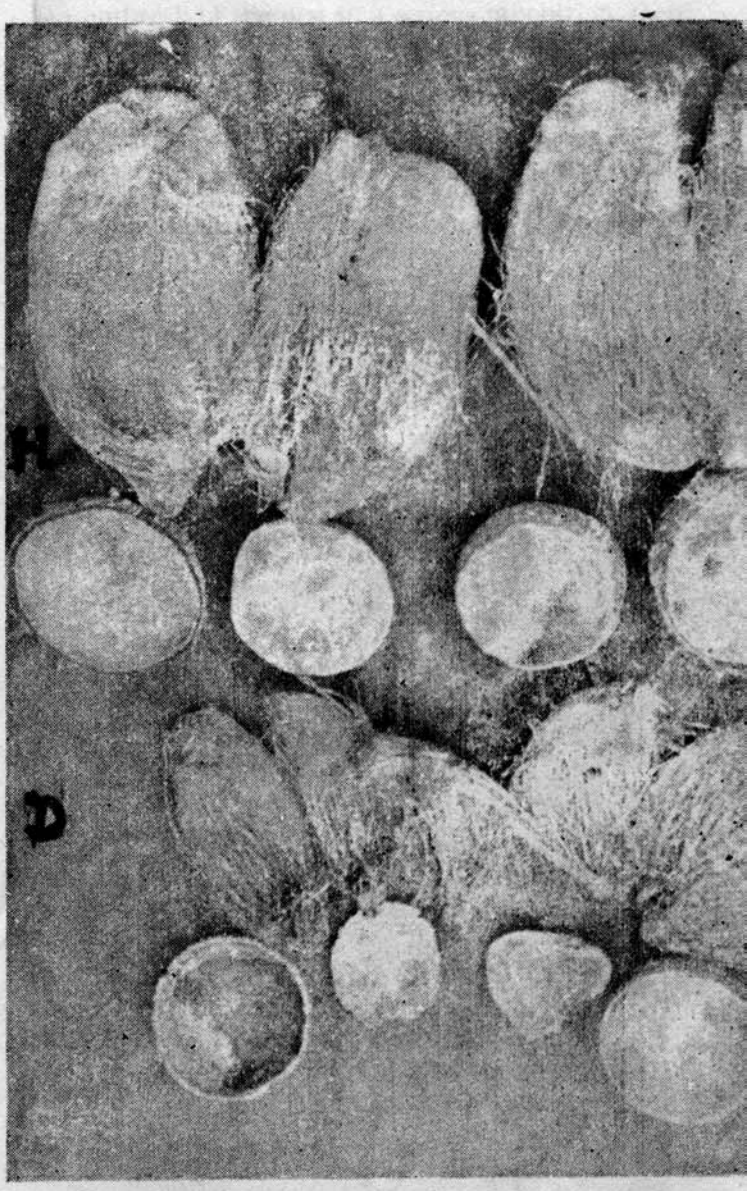

H—Healthy nut

D—Diseased nut

[1]Junior Scientist, CPCRI, Regl. Station, Kayangulam.
[2]Senior Scientist, CPCRI, Regl. Station, Kayangulam.

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