Possible Relationship between a Virus Disease of *Strachytarpheta indica* Vahl. and the Coconut Root (wilt)

Wilson and Sathiarajan[11] reported a new disease on *Strachytarpheta indica* Vahl. prevalent in certain localities of Trivandrum (Kerala). The symptoms as reported by the above authors consist of conspicuous irregular chlorotic areas on the leaf. The laminae of young leaves of diseased plants are reduced in size and are distorted tending to be linear. The regions in between the lateral veins are usually puckered or blistered, and the leaf margins often irregularly roll upwards. With the progress of the disease, the leaves become more stunted and distorted, some turning filiform. Wilson and Sathiarajan claim to have transmitted the disease on to healthy plants by inarch grafting. After 3-4 weeks of grafting, the new shoots formed on the healthy plants developed typical symptoms of the disease, thereby demonstrating that the disease is transmissible by grafting, thus proving its viral nature.

The authors mentioned that there was no record of such a disease on *Strachytarpheta indica*. However, in the Philippines, *Strachytarpheta jamaicensis* Vahl. has been suspected to be one of the alternate hosts for the coconut Cadang-Cadang disease (Calica[1]). This weed is severely diseased wherever it occurs under the Cadang-Cadang affected palms, although its occurrence is not as frequent as *Elephantopus mollis* or *Pseudoelephantopus spicatus* which are suspected to be better reservoirs of the disease. The main symptoms manifested by the affected plants are stunted growth, development of yellow mottling and marked distortion of affected leaves. Sometimes enations occur on the nether surface of the leaves. In the Southern and Western Provinces of Ceylon, a new coconut withering disease whose aetiology is not known manifests itself sporadically. While surveying the affected regions in 1962, I did come across *Strachytarpheta*, sp. in Ceylon, but without any disease symptoms (Davis[2,3]).

The new disease on *Strachytarpheta indica* noticed in Trivandrum may have some relationship with the major coconut Root (wilt) disease of Kerala which has just been established to be of virus origin (Menon[4], Menon and Shanta[5], Nagaraj and Menon[6], Shanta and Menon[9] and Shanta *et al*[10]. Trivandrum is not far away from the Root (wilt) disease belt of Kerala and is likely that a survey of *S. indica* plants in the latter area may reveal the prevalence of the diseased plants of both (coconut and *Strachytarpheta*) growing side by side. Since *S. jamaicensis* is suspected to be a carrier of the Cadang-Cadang disease, it may be worth the while to test *S. indica* as a possible alternate host for the Root (wilt) disease. Further, the areca palms in Central Kerala suffer from a serious malady, the Yellow Leaf Disease, which is also suspected to be of virus origin (Radha Menon[7,8]). As the arecanut disease is prevalent in centres very close to Trivandrum, the role of *S. indica* in working out the aetiology of the ravaging disease of the areca palms more fully is also worth exploring.

T. A. DAVIS

Crop Science Unit,
Indian Statistical Institute,
Calcutta-35.
16-11-1965

1 C. A. Calica, *Rept., FAO Working Party on Coconut, Trivandrum*, **1**, 104, 1961.
2 T. A. Davis, *Rept., FAO Working Party on Coconut, Colombo*, **2**, 283, 1964.
3 T. A. Davis, *Bull. Coconut Res. Institute of Ceylon*, **22**, 1, 1965.
4 K. P. V. Menon, *Rept., FAO Working Party on Coconut, Trivandrum*, **1**, 58, 1961.
5 K. P. V. Menon and P. Shanta, *Curr. Sci.*, **31**, 153, 1962.
6 A. N. Nagaraj and K. P. V. Menon, *Indian Cocunut J.*, **9**, 161, 1956.
7 Radha Menon, *Arecanut J.*, **11**, 12, 1960.
8 Radha Menon, *Arecanut J.*, **12**, 16, 1960.
9 P. Shanta and K. P. V. Menon, *Virology*, **12**, 309, 1960.
10 P. Shanta, K. P. V. Menon and K. Pachu Pillai, *Indian Coconut J.*, **13**, 56, 1960.
11 K. I. Wilson and P. K. Sathiarajan, *Sci. and Cult.*, **31**, 251, 1965.