

THE SPIDERMITE *TETRANYCHUS FIJIENSIS* HIRST
ON THE BETELNUT PALM

BY

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Three species of phytophagous mites are among the pests of betelnuts (also known as the arecanut palm) that infect their leaves. These are *Oligonychus indicus* Hirst (PUTTARUDRIAM and CHANNA-BASAVANNA, 1956), *Oligonychus biharensis* Hirst (PUTTARUDRIAM and CHANNA-BASAVANNA, 1959) and *Raoiella indica* Hirst (CHANNA-BASAVANNA and PUTTARUDRIAM, 1957). During 1974, a fourth species was found feeding on the lowersides of areca leaves. The symptoms of infestation appear as yellow speckles on leaves, and later, they coalesce to give the whole leaf an yellow colour. The pest is observed throughout the year with maximum population during summer (March to early June) and minimum during the rainy season (June to August). This mite has been identified as *Tetranychus fijiensis* Hirst (Acarina : Tetranychidae) by the Commonwealth Institute of Entomology, London.

The adult mites are orange red in colour. The eggs and other stages of this mite are seen inside webs spun by adult mites. The eggs are light purple to purple in colour. The incubation period is completed in 4.0-4.5 days. The freshly emerged larvae are pale yellow in colour. After they begin feeding, their sides became green. The larval period lasts 43-68 hr which includes a quiescent stage of 11-20 hr. The protonymphal and deutonymphal periods occupy 47-52 hr (quiescent period 4-19 hr) and 47-72 hr (quiescent period 13-23 hr), respectively. The duration of the immature stages is 9.9-12.1 days. This species also shows arrhenotokous parthenogenesis.

This mite is generally found in association with a predator complex that consists of a coccinellid *Stethorus* sp., a phytoseiid mite, a cecidomyiid, and a staphylinid beetle. These predators are found feeding on the other tetranychid mites of betelnut palm also.

T. fijiensis has been reported to occur on citrus, coconut, *Scaevola* palm (now *Phytosperma sensus lato*) and *Dieffenbachia* (an ornamental plant) in Fiji, India, and the Philippines (RIMANDO, 1962). In India, it has been observed on coconut and orange (PRASAD, 1974). This is the first record of this mite on the betelnut palm *Areca catechu* L.

SUMMARY

Tetranychus fijiensis Hirst is recorded as a new species infecting the betelnut palm *Areca catechu* L.

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RESUMÉ

Tetranychus fijiensis Hirst est signalé pour la première fois sur la noix de betel, *Areca catechu* L.

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