

Report Reference No.: GUY 01/02

Updated Report of red palm mite (*Raoiella indica*) in Guyana

1.0 Taxonomy notes:

(CABI 2015) *R. indica* was first described in the district of Coimbatore (India) by Hirst in 1924 on coconut leaflets [*Cocos nucifera*]. A comprehensive taxonomic review of the genus and species was carried out by Mesa et al. (2009), which lists all suspected junior synonyms of *R. indica*, including *Raoiella camur* (Chaudhri and Akbar), *Raoiella empedos* (Chaudhri and Akbar), *Raoiella obelias* (Hasan and Akbar), *Raoiella pandanae* (Mohanasundaram), *Raoiella phoenica* (Meyer) and *Raoiella rahii* (Akbar and Chaudhri). The review also highlighted synonymy with *Rarosiella cocosae* found on coconut in the Philippines. The review by Mesa et al. (2009) also lists the re-descriptions by several authors.

2.0 Identity of the pest

Raoiella indica

3.0 Report Status

This is a final report

4.0 Hosts or articles concerned

Plant Hosts: Coconuts (*Cocos nucifera*) and other ornamental palms
Heliconias
Banana and plantains (*Musa spp*)

Articles: Crafts made of palm leaves
Pointer brooms

5.0 Status of pest (under ISPM 8)

The pest is found to be Present: under official control.

6.0 Geographical distribution

The red palm mite is a serious quarantine pest of palms and suckers in the Caribbean. It was first discovered on the islands on Wakenaam, Essequibo River Guyana. Since the initial find, detection survey found the pest to be present in six of the ten administrative Regions of Guyana.

The mite is easily distributed through air currents and transport of infested plants and plant parts (including crafts and brooms), from one area to another.

7.0 Short description and summary

R. indica is a tiny bright coloured species of mite causing damages to palms (including dry and water coconut; and ornamentals), bananas (*Musa sp.*), and Heliconias. Affected plants exhibited extensive yellowing of the leaf tissues; and in coconuts symptoms are shown mainly in the lower third region.

Internal quarantine measures have since commenced on Wakenaam & Leguan and all known hosts of the pest are being treated or fumigated before leaving the islands. Biological assay studies have revealed two principal natural enemies: the green lacewing (*Ceraeochrysa spp*) and the predatory mite (*Amblyseius spp*). There is currently mass multiplication of the *Amblyseius spp* for release in the fields.

8.0 Nature of immediate or potential danger

The economic impact is multidimensional as a result of the numerous uses of the plants, in particular, the palms. If this pest becomes uncontrollable it could result in production losses and socioeconomic problems. Guyana is a major exporter of dry coconuts, water coconuts and copra. *C. nucifera* plays an integral role in subsistence agriculture in many coastal areas; the trees require minimal inputs and yet provide food, fuel and shelter as well as much needed income.

Additionally, sale of ornamental palms and craft made of palm leaves is a major economic activity for many residents on both islands. The palms also aid in preventing coastal erosion, and is highly demanded by homeowners and businesses nationally to enhance the aesthetics of their environment.