

Mini data sheet on *Raoiella indica*

Added in 2006 - Deleted in 2010

Reasons for deletion:

Raoiella indica was deleted in 2010 as a British-Dutch-Belgian PRA and an EPPO PRA respectively concluded that it was not a risk for the EPPO region.

Raoiella indica (Acari: Tenuipalpidae) - red palm mite

Why	Dr Etienne (INRA, Guadeloupe) reported to the EPPO Secretariat the recent introduction of <i>Raoiella indica</i> in Martinique. In particular, this mite species is considered as a pest of numerous palm species and therefore may represent a threat to nurseries producing ornamental palms and to date palm crops in the EPPO region.
Where	<p>EPPO region: Egypt, Israel (although reported on date palms in the early 1980s, no specimen could be collected in 2007), Russia (single doubtful record dated 1979).</p> <p>Africa: Egypt, Mauritius, Réunion, Sudan.</p> <p>Asia: India, Iran, Israel, Oman, Pakistan, Philippines, Sri Lanka, United Arab Emirates.</p> <p>North America: USA (Florida, first found in 2007).</p> <p>Caribbean: Dominica, Dominican Republic, Guadeloupe, Martinique (first reported in 2004; indoors on the ornamental palm species <i>Veitchia merrillii</i>, and outdoors on <i>Cocos nucifera</i>), Puerto Rico, Saint Lucia, Trinidad and Tobago (Trinidad island), US Virgin Islands (St Thomas). More data is needed on the geographical distribution.</p>
On which plants	<i>R. indica</i> can attack several palm species, in particular: <i>Cocos nucifera</i> , <i>Phoenix dactylifera</i> , <i>Areca catechu</i> , and ornamental species such as <i>Dictyosperma album</i> , <i>Syagrus ramanzoffiana</i> , <i>Veitchia merrillii</i> . It has recently been found in the Caribbean damaging <i>Musa</i> species (<i>M. balbisiana</i> , <i>M. acuminata</i> , <i>Musa x paradisiaca</i>). There are also records on <i>Ocimum basilicum</i> . More studies would be needed on its host range, as it appears to be able to feed on many different types of plants.
Damage	<i>R. indica</i> is usually found on the under side of the leaves. Affected palm plants can show from scattered yellow spots on both surfaces of the leaflets to a strong yellowish discoloration of the entire leaflet. For example, severely attacked coconut trees show entirely yellow leaves, particularly on the lower third part of the plant. On banana and plantain, lower leaves turn yellow with small patchy-green yellow areas. All active stages of this mite are dark red in colour, with black markings. Adult females are oval (up to 0.32 mm long x 0.22 mm large). <i>R. indica</i> is considered as an important pest of coconut and <i>Areca catechu</i> in India, and of <i>Phoenix dactylifera</i> in Egypt and Sudan. It is reported as feeding and damaging <i>Musa</i> spp. in Saint Lucia and Dominica.
Dissemination Pathway	Wind currents and trade of infested plants can ensure mite dispersal. Plants for planting, cut branches of host plants.
Possible risks	Palm species such as <i>P. dactylifera</i> are important for fruit production in North Africa. Ornamental palms are widely grown around the Mediterranean Basin, and are increasingly traded and used indoors in northern countries. <i>Musa</i> is grown in limited parts of the EPPO region, but is there a valuable crop. Control measures may be available (for example, chemical efficacy is studied in India, several predator species are reported from the literature), but mite control is likely to be difficult in practice, especially on large plants. In the Americas, <i>P. indica</i> is clearly considered as a new invasive pest which threatens ornamental palms, coconut and banana plantations. For the Euro-Mediterranean region, more data would be needed on the situation in Egypt and Israel, as there is no clear indication from the literature that it is very damaging there and that it is currently disseminating. However, it seems desirable to avoid any further spread

Source(s)

of *P. indica*, particularly on plants for planting, as this pest could cause problems to date palm production and ornamental palm nurseries.

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Personal communication with Dr E. Palevsky, ARO, Israel (2008-02-14).

INTERNET

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ICARDA website. Crop Protection and IPM. Pests of the date palm (*Phoenix dactylifera*) by M Saeed Gassouma. <http://www.icarda.org/APRP/Datepalm/Topics/Pest/Pestright.htm>

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Press Release of 2007-12-05. Red palm mite infestation identified in palm gardens. http://www.doacs.state.fl.us/press/2007/12052007_2.html

NAPPO Phytosanitary Alert System - Official Pest Reports (2007-12-14) Detections of Red Palm Mite (*Raoiella indica*) in Palm Beach County, Florida - United States. <http://www.pestalert.org/oprDetail.cfm?oprID=302>

USDA-ARS website. *Raoiella indica* Hirst (Acari: Tenuipalpidae): An island-hopping mite pest in the Caribbean by Kane EC, Ochoa R, Mathurin G, Erbe EF. <http://www.sel.barc.usda.gov/acari/PDF/TrinidadHandout.pdf>

Kane EC, Ochoa R (2006) Detection and Identification of the red palm mite *Raoiella indica* Hirst (Acari: Tenuipalpidae) <http://www.sel.barc.usda.gov/acari/PDF/indicaGuide.pdf>

A tiny menace island-hops the Caribbean. <http://www.ars.usda.gov/is/AR/archive/may07/island0507.htm?pf=1>

EPPO RS 2006/009, 2006/186, 2007/187, 2008/004

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