

Plant Pest information note

What is it?

Rhynchophorus ferrugineus (Red Palm Weevil) is an important pest that affects palm trees. It is native to southern Asia and Melanesia, where it is a serious pest of coconut trees. This is a regulated pest within the EU. In 1994 it was detected in Spain, it has since spread to many different areas in Europe. This pest has now spread to the Balearic Islands (2006), Canary Islands (2005), Cyprus (2006), France (2006), Greece (2006), Italy (2004) and Turkey (2007). The main palm affected is the canary date palm and date palm. This pest has yet to be found in Ireland.

How do I recognise it?

Adult Red Palm Weevils (RPW) are large beetles that can be 35-40mm in length. The weevils have a long slender rostrum (snout). This rostrum is used by the female to penetrate the palm tissue and allows her to lay her eggs. Colouration in the adult weevil is predominately reddish-brown (Fig 1.). There are two different colour types or colour morphs for RPW; adults that are predominantly reddish in colour, and the others that are dark with a red streak dorsally. The Red Palm Weevil, like other beetles, develop through complete metamorphosis, with larvae and pupae developing within the trunk and apical growth tissues of the palm meristem.

Larvae are legless grubs (Fig. 2) with the body colour uniformly pale yellow with a brown head (Fig. 2). Larvae may reach lengths greater than 50mm. Larvae feed within the soft tissues of the meristem or leaf bases creating frass filled mines. These mines enlarge and penetrate deep within the upper trunk areas as the larvae mature. Mature larvae construct a cocoon made up of palm fibres in which they pupate and occupy for approximately three to four weeks. The cocoons are located within the damaged tissue of the palm.



Fig. 1 Adult RPW (Fera)



Fig. 2 Larva of RPW (Fera)

What are its hosts?

Rhynchophorus ferrugineus feeds primarily on palms (Areaceae) and has been recorded on the following plants: **Agavaceae:** *Agave americana* (century plant). **Areaceae:** *Areca catechu* (betel nut palm), *Arenga saccharifera* (sugar palm), *A. pinnata* (sugar palm), *Borassus flabellifer* (toddy palm), *Borassus* sp. (palmyra palm), *Calamus merrillii* (rattan), *Caryota cumingii* (fishtail palm), *C. maxima* (giant mountain fishtail palm), *Cocos nucifera* (coconut), *Corypha utan* (= *C. gebanga*, *C. elata*) (gebang palm), *C. umbraculifer* (talipot palm), *Elaeis guineensis* (oil palm), *Livistona decipiens* (ribbon fan palm), *L. chinensis* (Chinese fan palm), *L. saribus* (= *Livistona cochinchinensis*) (serdang palm), *L. subglobosa*, *Metroxylon sagu* (sago palm), *Oneosperma horrida*, *O. tigillarum* (nibong palm), *Phoenix canariensis* (Canary Island date palm), *P. dactylifera* (date palm), *P. sylvestris* (Indian date palm), *Oreodoxa regia* (royal palm), *Sabal umbraculifera* (pygmy date palm), *Trachycarpus fortune* (Chusan palm) and *Washingtonia* sp. **Poaceae:** *Saccharum officinarum* (sugar cane).

What are its symptoms?

The main cause of damage is during the larval stage. The adult first bores a hole into the tree and lays 200-300 eggs. Once the larvae emerge they then bore deep into the interior of the trees feeding on the soft succulent tissues (Fig. 3). Other symptoms of this pest would be evidence of chewed foliage (Fig. 4). In some cases pupal cocoons may also be evident.



Fig. 3 Damage to the palm trunk (Fera)



Fig. 4 Foliage damage by RPW (Fera)

Why should we be worried about it?

Rhynchophorus ferrugineus is a major economic pest of coconut palm, date palm, oil palm and sago palm. It also attacks a wide range of ornamental palms. Severely attacked plants exhibit a total loss of foliage and rotting of the trunk, which eventually results in the death of the tree.

Once infested by *R. ferrugineus*, palms often collapse or die because of extensive damage to the meristematic tissue in the crown or to the vascular system of the palm stipe and/or offshoots. However, palms in the early stages of attack can recover if adequately managed.

How does the pest spread?

The main route for the spread of this pest is through trade in palms, vegetables and ornamentals arriving from infected countries

Action in the event of suspect cases:

Rhynchophorus ferrugineus is on the A2 list of quarantine pest in the EPPO region. It has not yet been detected in Ireland, as a result Ireland has been given Protected Zone status (PZ) for this pest under the European Plant Health Directive. Any suspected cases of this pest should be reported to your local plant health inspector or contact:

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Department of Agriculture, Food and the Marine,

Backweston Campus,

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