• RED PALM WEEVIL

(Rhynchophorus ferrugineus)

- Order: ***Coleoptera***
- Family: ***Curculionidae***
- Scientific name: ***Rhynchophorus ferrugineus*** (Olivier 1790)
- Common name: Red palm weevil or Asian palm weevil
- Origin: Southeast Asia.
- It affects a great number of PALM species, but in the Mediterranean region, primarily the **Canary palm (*Phoenix canariensis*)** and to a lesser extent the **date palm (*Phoenix dactylifera*).** The palm weevil has a preference for the male Canary palms.

It first appeared in the Iberian Peninsula in 1995, in the province of Granada, and since then it has extended to all the coastal countries of the Mediterranean causing the death of thousands of palm trees.
In the Balearic Islands, it was first detected in 2006 on the Island of Mallorca, and in 2007 it was also identified in Ibiza.

In MENORCA, it was first discovered in a palm tree in the municipality of Mahon in October of 2013. At the end of December 2013, 31 specimens had been detected, located primarily at the eastern end of the island.

Foto: Jesús Altabella. DAAM.. S.V. Generalitat de Catalunya

LEGISLATION

In accordance with that which is established in the Law for Plant Health (Law 43/2002, from the 20th of November) and the Resolution by the Department of Agriculture and Fishing on the 12th of May of 2010 that establishes measures for combating the *Rhynchophorus ferrugineus* plague:

- ✓ **It is the responsibility of all owners of palm trees to keep them in good phytosanitary health.**
- ✓ **Any stage of the life cycle of this insect must be eliminated and the affected parts of any palm trees must be removed and destroyed.**

To report a plague or request more information:

Edifici "Sa Granja"

971 35 63 17 | Ctra. des Grau, km 0,5 | Maó

www.cime.es

DL: ME-398/2014

Red palm weevil,
Rhynchophorus ferrugineus (Olivier, 1790)

¡¡¡ ATTENTION !!!

RED PALM WEEVIL PALM TREES IN MENORCA

CONSELL INSULAR DE MENORCA

DEPARTAMENT D'ECONOMIA, MEDI AMBIENT I CAÇA

DESCRIPTION AND BIOLOGY

The life cycle from egg to adult is about 3 - 4 months and 3 - 4 generations may occur in the same palm tree as long as nutrients are available, in which all stages of the insect can cohabitate. When adult beetles abandon the tree, they fly to other palm trees for colonization, preferring specimens with lesions, whether accidental or caused by pruning.

State	Size	Characteristics
Adult Beetle	2 a 5 cm	- The weevil is reddish in colour with a long prominent curved snout like a beak. - The thorax has a few dark spots and the elytra that protect the wings are of the same reddish colour with black striae.
Egg	1 - 2,5 mm	- Long and oval in shape. Glossy white.
Larva	up to 5-6 cm	- Legless. - It is yellowish-brown in colour with a brownish-red head.
Pupa	4-6 cm	- It grows in a cocoon made from palm fibres.

SYMPTOMS AND DAMAGE

Although visible symptoms of affected palm trees may not appear until months after infestation, **it is crucial to be alert to possible symptoms to assure early detection**.

Some of these symptoms are:

- **Asymmetry of the crown, wilting of the leaves and weakening of the leaf shoot.**
- **The palm tree's leaf shoot is shifted or completely missing.**
- **Perforations or wearing in leaves, especially young leaves, Palm leaves may take on shape of arrowhead.**
- **Shortening of leaves.**
- **Affected leaves come off easily and where they attach to the tree, the cavities dug out by the larvae can be observed.**
- **Remains of pupae or pupal cases among the leaves.**
- **Remains of palm leaves, fibre and pupal cases on the ground around trees.**
- **Presence of cavities when cutting into the stalk of the leaves.**
- **Strong acidic odour given off caused by the rotting of fibres.**
- **If the damage affects the shoot apex, the sole point of growth of the palm tree, death will be inevitable for this specimen. In advanced infections, total detachment of the crown will occur.**
- **Attacks at the base of the trunk may also take place in the case of the date palm.**

PREVENTION AND CONTROL OF THE PLAGUE

Pruning -> from DECEMBER to FEBRUARY

Lesions make the tree more attractive to the insect.

Pruning and other activities that may cause lesions must be carried out from December to February and be followed up by phytosanitary treatment.

Early detection of a plague avoids its spreading

- Careful vigilance of sensitive or at-risk palm trees is a vital tool in the fight against the palm weevil.
- The effectiveness of treatment is greater in less severe attacks.

PREVENTIVE PHYTOSANITARY TREATMENTS

It is of crucial to carry out preventive periodical treatments to keep palm trees from becoming infected.

Low-pressure fumigation (treatment using gravity)

- The solution should be applied from above, soaking primarily the leaf shoot and the axils of the leaves.
- At least 15 - 20 litres of solution should be used per palm tree per treatment.
- Products: insecticides must be used (chlorpyrifos, imidacloprid, etc.) or authorized biologically controlled organisms (nematodes).
- Timing: From the beginning of spring to the end of autumn.
- Frequency: At least 5 treatments per year.

Endotherapy (injection of insecticide in the trunk) with systematic products (imidacloprid, abamectin, thiamethoxam, etc.).

Pods bites

ACTIONS TO BE TAKEN UPON AFFECTED PALM TREES

The detection of any palm tree affected by the palm weevil must be immediately reported to the Agriculture Department of the CIM (Menorcan Island Council).

1. **Palm tree undergoing early attack from palm weevil.**
   - **Carry out shock treatment** following guidelines and regulations for phytosanitary treatments.
   - **Sanitation** of affected parts of the palm tree, having previously informed the CIM of the actions to carried out. Sanitation consists of eliminating the affected parts of the tree until reaching unaffected and healthy parts, hence eliminating any insect life form and avoiding further rotting of fibres.
   - Carry out a series of **therapeutic treatments**.
2. **Palm tree heavily affected by palm weevil.**
   - **Carry out shock treatment** following guidelines and regulations for phytosanitary treatments.
   - **Properly inform** the CIM prior to the destruction of affected parts, according to the established model.
   - **Destruction and transportation** of the affected remains following the established guidelines.

These treatments must be carried out by qualified professionals and must follow the instructions for safety and health corresponding to that which is established by the Royal Decree on Phytosanitary Products to assure the sustainable use of these products.

Asymmetry of the cup