

RED PALM WEEVIL ORIGIN: Since 2004 the Valencia Community has been invaded by a pest called *Rhynchophorus ferrugineus*, which severely affects palm trees. This pest is classified as a quarantine pest by the existing legislation and therefore its control and eradication has been declared to be in the public interest by the Order of the Regional Ministry of Agriculture, Fisheries and Food of 24 March 2004, based on the Law on Plant Health (Ley 43/2002 de Sanidad Vegetal).

AFFECTED SPECIES: The severity with which the pest attacks palms, especially *Phoenix canariensis* and *Phoenix dactylifera* species, makes it essential to obtain the cooperation of the local population to detect the presence of this pest, and help with its eradication.

RED PALM WEEVIL IDENTIFICATION: This pest is a coleopterous, like a rusty red coloured beetle, which flies from palm to palm attracted by the smell of the pruning cuts. Once they are in the palm trees, they lay dozens of eggs on the leaves. These eggs hatch into larvae long (beige or bone white in colour, with no feet) and it burrows into the heart of the palm through the main shoot, destroying the tenderest and youngest leaves, causing its death, and subsequent collapse.



SYMPTOMS are the similar for each palm species. The most common sign that a canary palm is infested is the deterioration of leaves growing from the crown. Affected leaves are nibbled at its base and break off easily with a slight tug. Larvae are difficult to see because they are inside the palm tree; however it is easy to hear them at dusk nibbling the palms. Also the cocoons from where adults emerge can be seen on the ground or the sawdust of perforations. The date palm differs as it is attacked in its most tender part, usually in the shoots up to the trunk of the mother plant.



INSECTICIDE TREATMENTS: The active ingredients listed in the table below are currently a permitted treatment for use against *Rhynchophorus ferrugineus*.

ACTIVE MATTER	CULTIVATION OF ORNAMENTAL PALMS	PARKS AND GARDENS	DOMESTIC OUTDOOR GARDENING
Clorpirifos 48%	YES	NO	YES
Fosmet 50%	YES	NO	NO
Imidacloprid 20%	YES	YES	YES
Tiametoxam 25%	YES	YES*	YES

* Authorised its use on trunk injection.

The application of plant health products should be carried out as per the instructions and warnings on labels. Time to carry out treatments should coincide with the insect activity. In the coldest months (December, January and February) treatments can be more spaced out. The insect starts its activity in April and its reproduction period occurs in June and November. The application of the product should be carried out on the bud and upper trunk, penetrating well into the bud with plenty of insecticide to allow penetration into the interior galleries where the insect has burrowed into the palm.



BIOLOGICAL TREATMENTS:

Steinernema carpocapsae is a nematode that has been very effective in controlling the red palm weevil both preventively and curatively.

TREATMENT	TIME OF YEAR
1- <i>Steinernema carpocapsae</i>	First week of March
2- <i>Steinernema carpocapsae</i>	First week of May
3- IMIDACLOPRID 20%	Second week of June
4- <i>Steinernema carpocapsae</i>	First week of August
5- IMIDACLOPRID 20%	First week of October

TREATMENTS SCHEDULE: There is no general rule to set

specific dates for the treatments, although, taking into account the period of greatest insect activity, we recommend the following schedule.

RECOMMENDATIONS ON PRUNING: It is very dangerous for the palms pruning them or carrying out any kind of cleaning to them, especially in the established protection area. These individuals are particularly susceptible to RED PALM WEEVIL attacks after the pruning or cleaning. It is recommended that, as far as possible, do NOT prune these specimens.

Pruning season: December, January and February, avoiding severe pruning. On those dates an insecticide treatment should be duly applied, or pruned areas should be covered with mastic or healing paste.

If pruning is carried out outside the advisory months or in the period of greatest insect activity, then an application of mastic or insecticide treatment must be used afterwards. Severe pruning should be avoided.

AFFECTED PALM TREES: There is a "Protocol of collaboration" between individuals and the Regional Ministry of Agriculture, Fisheries and Food to remove palms affected by the red palm weevil ("Protocolo de Colaboración con Particulares para la Retirada de Palmeras Afectadas por Picudo Rojo").

In order to expedite the removal of palms affected by de *Rhynchophorus*

ferrugineus in the Valencia Community, the owners of the palms must take care to ensure that the pollarding of the affected palms is in accordance with the protocol mentioned below, including utilising Technical Support from TRAGSA for the “Campaign of Monitoring *Rhynchophorus ferrugineus* and Removal of Affected Palms Removal Campaign” for the removal and transport of the affected palms to the crushing plant. To this end, taking into consideration the biological characteristics and the behaviour of the pest, it is necessary to ensure proper coordination in these works in order to reduce any risk, between the time of felling the palms and transporting them to the crushing plant. Where it suspected that a palm could be infected by the pest, then the next protocol must be adopted:

PROTOCOL OF ACTION FOR INDIVIDUALS:

1. Notify the proper authority 3 weeks in advance, before the commencement of any work. Notify TRAGSA of the next information:
 - Date booked for felling
 - Address, height and number of palms to be removed
 - Contact phone number
2. The application of a plant health products treatment before the felling.
3. The maximum length of any trunk to be transported and crushed will be 2.5 metres. If the height of the palm exceeds that length it must be cut up into sections. Trunks must be left as close as possible to the road in order to be loaded with a crane.
4. The parts of the palm affected by the pest must be covered with a plastic to prevent its spread.
5. Trunks must be left gathered together and stacked to facilitate its loading.
6. Under no circumstances will the root ball be removed.

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THANK YOU FOR YOUR CALLABORATION



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PROTOCOL OF ACTION AND RECOMMENDATIONS FOR THE TREATMENT OF PALM TREES INFECTED BY THE RED PALM WEEVIL

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