NEPPO
منظمة وقاية النباتات للشرق الأدنى
Near East Plant Protection Organization

Africa Phytosanitary Programme

(APP) Phase 2 · Train-the-Trainer workshop

23–27 June 2025 · Mpumalanga, South Africa

Rhynchophorus ferrugineus (Red Palm Weevil)

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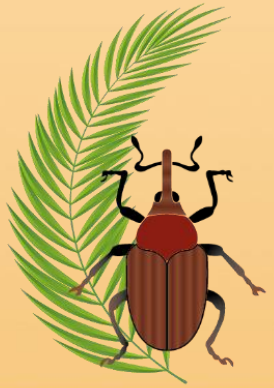


Le charançon rouge du palmier, *Rhynchophorus ferrugineus* (Olivier, 1790)

❖Un ravageur **envahissant**

❖Il a causé des dommages dévastateurs à plus de 40 espèces de palmiers dans le monde, y compris des espèces de **palmiers économiquement importantes** telles que le **palmier dattier**, le cocotier et le palmier ornemental.

❖C'est l'une des espèces les plus redoutables de la région méditerranéenne

❖Le CRP a été signalé au **Moyen-Orient** au milieu des années 1980 et se propage maintenant à presque tout le **Proche-Orient**, à l'**Afrique du Nord** et aux **pays méditerranéens**.

Le CRP est probablement introduit dans la NENA région sur du **matériel de plantation infesté**.

❖Le CRP a été détecté dans:

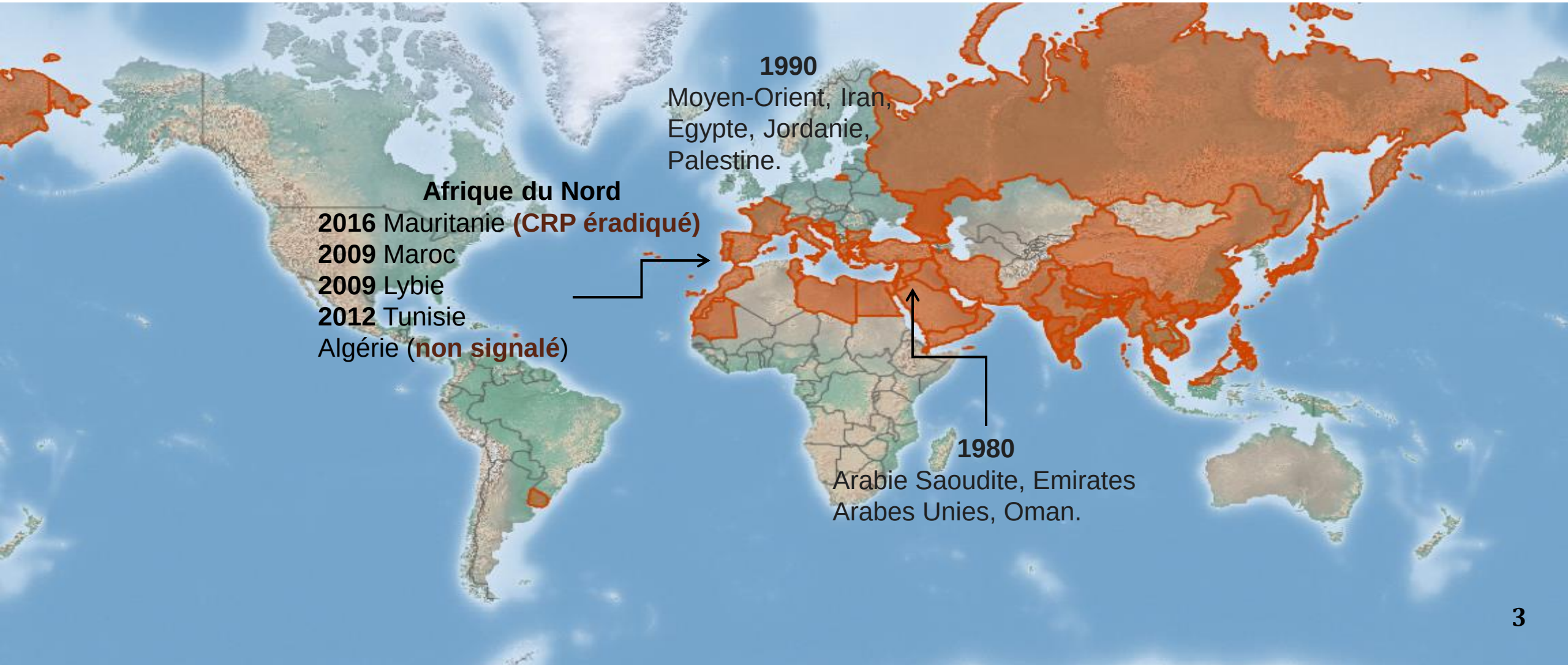
✓des jardins ou des parcs publics sur des palmiers ornementaux et d'autres;

✓des pépinières;

✓des plantations de palmiers dattiers.

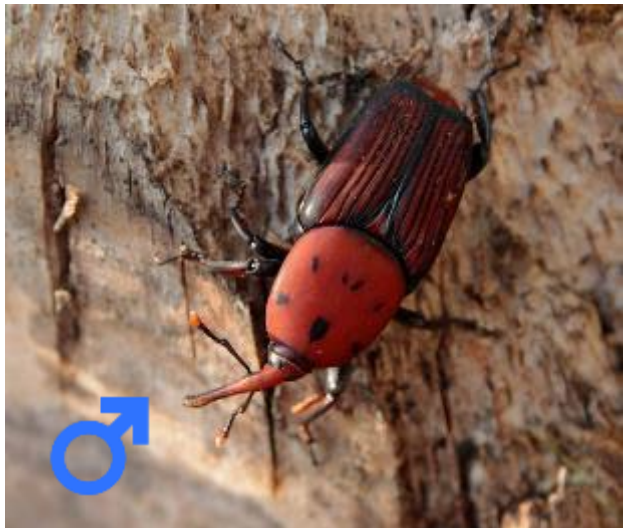
Répartition géographique dans la région du Proche-Orient et Afrique du Nord

- **Originaire des îles de l'Indonésie et des côtes de l'Inde méridionale,**
- **c'est une espèce typiquement diffuse en Asie du sud orientale**



Le charançon rouge du palmier, *Rhynchophorus ferrugineus* (Olivier, 1790)

Description



Adulte

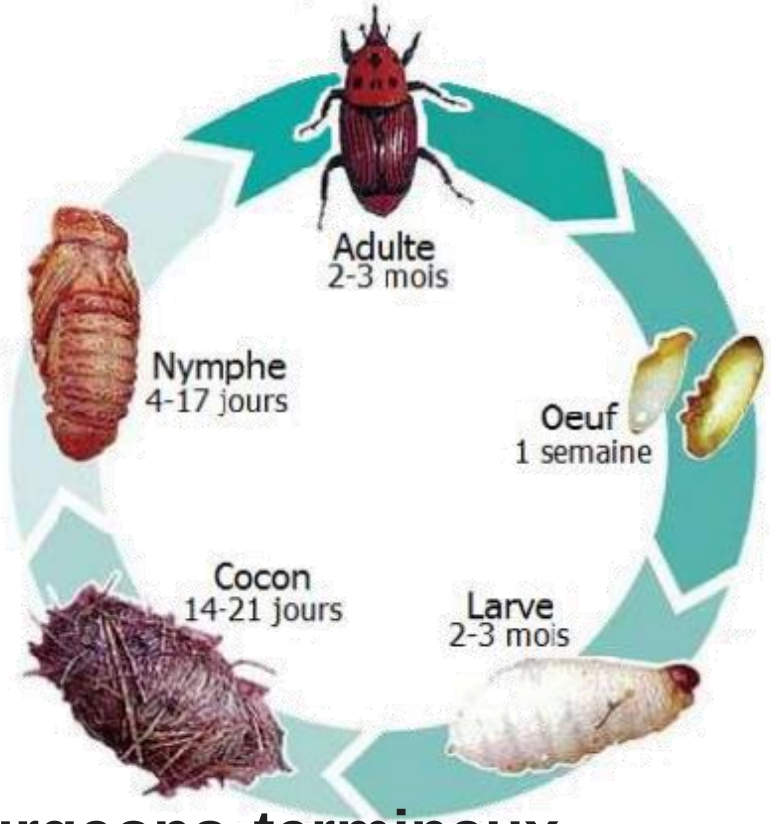
Rhynchophorus ferrugineus est un grand charançon rouge d'environ 3 à 3,5 cm de long.

Larve

Les larves **brun crème** sont dodues avec une capsule céphalique brun foncé.

Le charançon rouge du palmier, *Rhynchophorus ferrugineus* (Olivier, 1790)

Le cycle de vie total dure environ 3 à 4 mois



- La femelle pond environ **200 œufs** :
  - Sur les nouvelles pousses,
  - Dans la couronne du palmier,
  - à la base des jeunes feuilles,
  - dans des lésions ouvertes sur la plante.

- L'œuf éclot en une larve blanche sans pattes.

- **La larve se nourrit des fibres molles et des bourgeons terminaux, creusant des tunnels à travers les tissus internes de l'arbre pendant environ un mois.**

- À la nymphose, la larve quittera l'arbre et formera un cocon construit de fibres de palmier sèches dans une litière de feuilles à la base de l'arbre.

Plantes hôtes

Le charançon rouge du palmier s'attaque à plus de 40 espèces de palmier, dont les plus sensibles sont:

Canary Island date palm

Date palm

African oil palm

Chinese fan palm

Queen palm

Fishtail palm

Cuban royal palm

Coconut palm

Dommages & symptômes

❖Les dommages causés par le CRP précoce du palmier peuvent être difficiles à repérer

❖Étant donné que les larves de charançon rouge du palmier passent une grande partie de leur vie à l'intérieur des tissus d'un palmier, c'est généralement grâce à la **découverte de tunnels** ou d'**excréments** (copeaux de bois) sur la couronne du point de croissance central du palmier que l'on peut détecter la présence du charançon.

❖Au fur et à mesure que l'infestation progresse, les symptômes deviennent plus perceptibles. Les nouvelles feuilles (frondes) ne poussent pas correctement. Au lieu de cela, la nouvelle croissance mourra, suivie de feuilles en décomposition qui s'affaissent et apparaissent jaunes et brunes.

Symptômes sur *Phoenix canariensis*

Phoenix canariensis
Arbre Sain

Différents stades s'infestation

1er stade

2ème stade

3ème stade

4ème stade

Symptômes sur *Phoenix dactylifera*

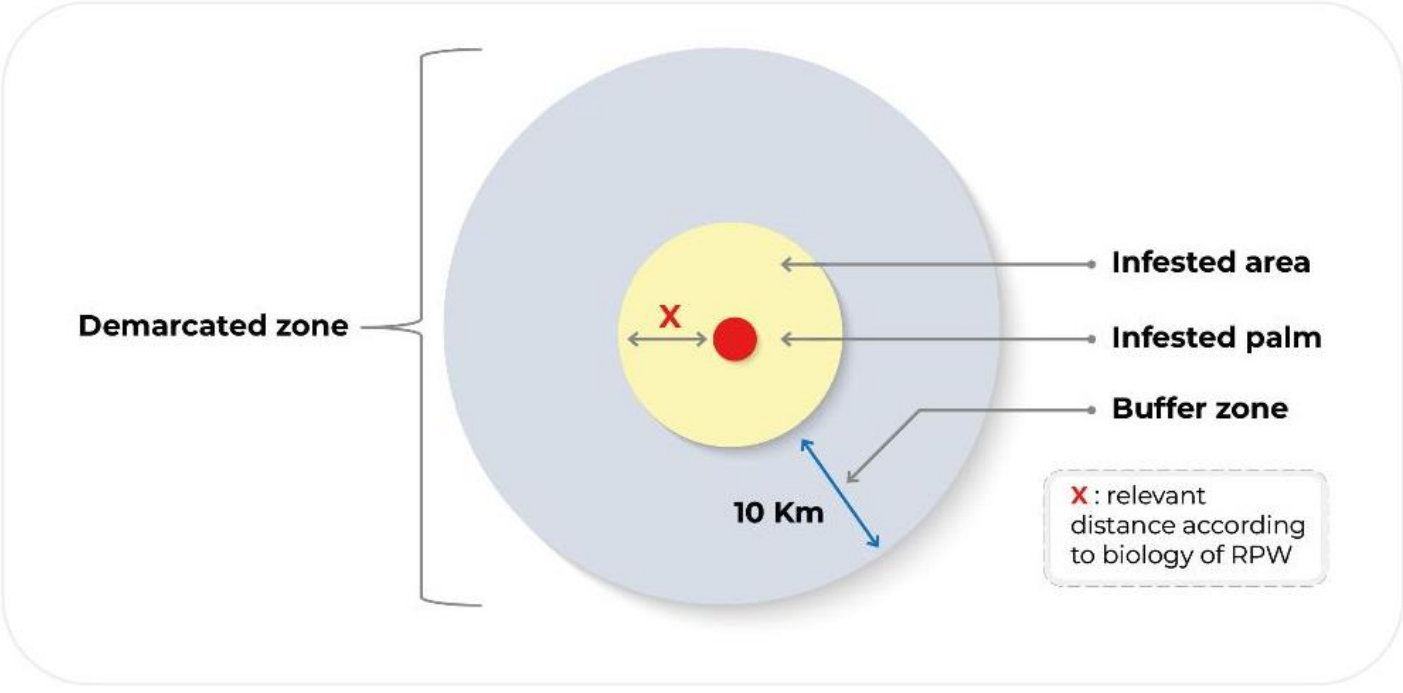
La lutte contre le charançon rouge

Au moment de la détection du charançon

Textes législatifs

1. Signalement de la présence du charançon
2. Création d'une zone exempt du charançon
3. Prohibition de déplacement des plants des zones infestées vers les zones saines

Pest free area: zones exemptes du charançon



Organisation des Nations Unies
pour l'alimentation
et l'agriculture

Convention Internationale
pour la Protection
des Végétaux

NIMP 4

FRA

NORMES INTERNATIONALES POUR LES MESURES PHYTOSANITAIRES 4

Exigences pour l'établissement de zones exemptes

La lutte contre le charançon rouge

Actuellement, les méthodes de **lutte biologique** contre le CRP ne sont pas efficaces.

La lutte contre le charançon rouge du palmier (CRP) implique:

✓L'utilisation d'**insecticides systémiques** par injection dans le tronc ou par des applications au sol. Cette méthode n'est efficace que si elle est appliquée à titre préventif.

✓L'utilisation des pièges de masse avec des phéromones d'agrégation dans les bosquets commerciaux.

✓Le déchiquetage et la combustion du matériel infesté pour arrêter la propagation du ravageur.

La lutte contre le charançon rouge

Lutte dans les zones infestées

1. Surveillance des palmiers sains et détection précoce des palmiers infectés

➔**Intervention rapide**

2. Pulvérisation d'insecticides

3. Endothérapie

4. Cisaillement apical des palmiers infectés à des stades avancés

5. Pièges à phéromone

Formation & sensibilization

الجمهورية التونسية

وزارة الفلاحة و الموارد المائية

والصيد البحري

دليل الإجراءات الخاص بمتابعة ومكافحة

سوسة النخيل الحمراء

Protocole de lutte contre le charançon rouge

des palmiers

(*Rhynchophorus ferrugineus*)

Direction Générale de la Santé Végétale et du Contrôle des Intrants Agricoles

S.D du Contrôle Phytosanitaire au Points d'Entrées

Préparé par: Imed Jaouadi - Mohamed Chaouachi - Hichem Asses - Oussama Salhi - Houssem Eddin Ajlani

الإدارة العامة للصحة النباتية ومراقبة المدخلات الفلاحية

الإدارة الفرعية للرقابة الصحية النباتية عند نقاط العبور

إعداد: عماد جوادي - محمد الشواشي - هشام عساس - أسامة صالحي - حسام الدين عجلاني

2019

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Role of NEPPO?

Encouraging international & regional cooperation to support plant protection and enhance capabilities

» The Near East Plant Protection Organization (NEPPO) is an intergovernmental organization responsible for international cooperation in plant protection in the Near East and North Africa region

» The NEPPO is a platform for **member countries** to develop and implement a **regional strategy** and **standards of plant protection**.

» **Pest control in sound ways**

» **Prevent the entry & spread of pests**

» **Faciliting & encouraging regional & international trade exchange**

Goals

- ✓ Understand and implement **international standards** for phytosanitary measures.
- ✓ **Facilitating** commercial **exchanges** by making available legal texts related to phytosanitary measures.
- ✓ **Enabling countries** to take necessary measures to prevent the entry of new pests, destroy them, or limit their damage (the importance of early detection.
- ✓ Promoting the **use of safe**, **effective** and **modern pest control** methods (IPM control), to reduce the negative impact on humans, plants and the environment, especially on water resources.
- ✓ **Cooperation** and **coordination** to enhance phytosanitary measures and support efforts to prevent the introduction or spread of pests.
- ✓ Establishing regional **phytosanitary measures standards**.
- ✓ Assess **pest risks** and develop scientific measures.

Establishment of an Agreement between the NEPPO and FAO on the eradication of the red palm weevil in the Near East and North Africa region

Food and Agriculture Organization of the United Nations

NEPPO
منظمة وقاية النباتات للشرق الأدنى
Near East Plant Protection Organization

1. **Red palm weevil: an invasive pest** that poses a major threat to plant health and severely damages more than **40** palm species globally
2. **It was reported in the Middle East in the mid-eighties of the twentieth century.**
3. **It later spread to almost all countries of North Africa and the Near East.**
4. **The Near East and North Africa region has entered into infected agricultural material.**

Develop **regional protocols to** strengthen phytosanitary measures and border control protocols against the red palm weevil, in line with International Phytosanitary Measures (ISPMs).

Develop a protocol for available, effective and inexpensive treatments of date palm seedlings and ornamental to combat the red palm weevil

1. Certification Scheme for Propagating Materials of Date Palm (*Phoenix dactylifera*)
2. Pest free area protocol for RPW *Rhynchophorus ferrugineus,*
3. Guidelines for phytosanitary measures to prevent the spread of RPW *Rhynchophorus ferrugineus*
4. A regional protocol for available and cost-effective treatments of date palm offshoots and ornamentals at border against RPW *Rhynchophorus ferrugineus,*

Regional workshop on Production, Conservation & Utilization of Certified Propagative Materials of Fruit Trees in NENA Countries". Rabat, Morocco from 14-16 November **2023**.

The NEPPO-FAO Regional Meeting on "Strategies for Prevention, Early Detection and Control of Red Plam Weevil" from 24 to 25 June 2024 in Hammamet -Tunisia., Hammamet, Tunisia: 24-25 June **2024**.

Guidelines

i. Rules for the certification of date palm propagative material
ii. A regional standard for harmonized phytosanitary measures within the region (at borders and inspection on the territory)
iii. A regional standard protocol for available and cost-effective treatments of offshoots and ornamentals (at border)
iv. RPW Free Area Protocol.

1. Certified palm date propagation material

❖Plant certification programs aim to produce and distribute high-quality planting materials that are free from systemic diseases and pests.

❖Certification programs establish eligibility rules for nurseries, growers, and other plant suppliers.

❖Certified date palm plants guarantee varietal authenticity (true-to-type) and phytosanitary status

❖Certified date palm plants is key to the success of the date palm grove (date palm orchard).

❖It contributes highly to:

✓Improving both the productivity and the quality of the dates produced,

✓Increasing the farmers' incomes.

1. Certification Scheme for Propagating Materials of Date Palm (*Phoenix dactylifera*)

For the production of certified date palm propagating materials, the following steps should be taken.

STARTING MATERIAL
-New bred varieties
-Varieties of common knowledge (groves)

BASIC MATERIAL
OCA authorized nurseries

OFFICIAL COMPETENT AUTHORITY (OCA) CONTROLS
- Control of origin of offshoots;
- Control of traceability system;
- Control of varieties and lot isolation;
- Control pf phytosanitary status and technical quality;
- Estimation of number of offshoots plants produced.

CERTIFIED MATERIAL
OCA authorized nurseries for producing offshoots plants

IN-VITRO PROPAGATION
OCA AUTHORIZED LABORATORIES

CERTIFIED MATERIAL
OCA authorized nurseries for producing vitroplants

CERTIFIED OFFSHOOTS PLANTS
OCA labelling

CERTIFIED VITROPLANTS
OCA labelling

FARMERS GROWERS (GROVES)

OFFICIAL COMPETENT AUTHORITY (OCA) CONTROLS
- Control at fruiting stage for varietal indentity;
-Control of phytosanitary status;
-GIS identification and trees coding;
- Supervising and labelling of offshoots picked

OFFICIAL COMPETENT AUTHORITY (OCA) CONTROLS
-Control before installation for soil analysis and isolatiion;
- Control of the origin of starting material;
- Control at fruiting stage for varietal indentity;
-Control of phytosanitary status;
- Control of traceabilty system;
-GIS identification and trees coding;
- Estimation of potential number of offshoots;
- Supervising and labelling of offshoots picked

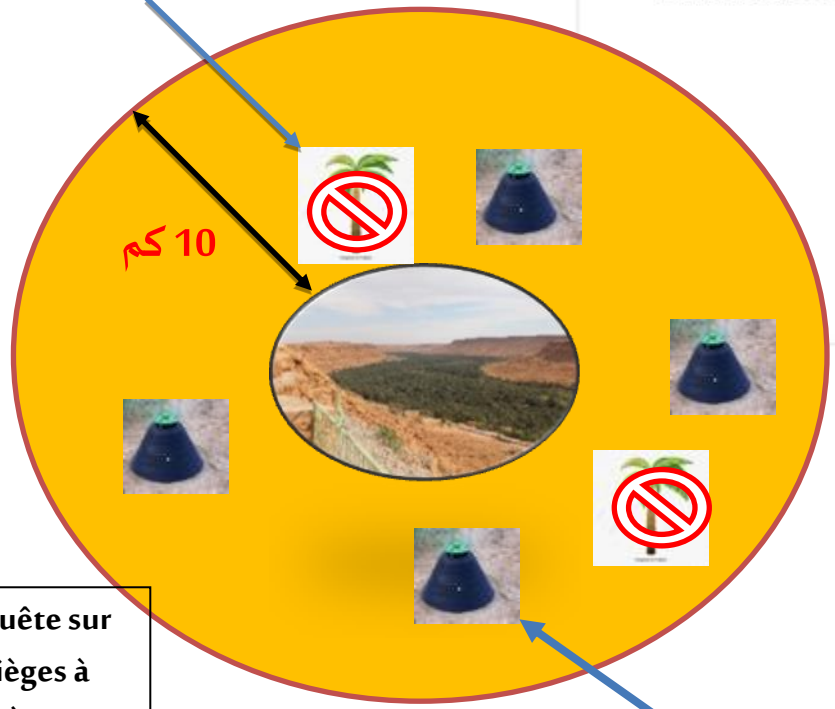
OFFICIAL COMPETENT AUTHORITY (OCA) CONTROLS
- Control of origin of offshoots (or infloresence) introduced;
- Control of traceability system;
- Control of the quality of strains
- Control of varieties and lot isolation;
- Estimation of number of planlets produced.

OFFICIAL COMPETENT AUTHORITY (OCA) CONTROLS
- Control of origin of plantlets;
- Control of traceability system;
- Control of varieties and lot isolation;
- Control of phytosanitary status and technical quality
- Estimation of number of vitroplants produced.

OCA and EXTENSION SERVICES
verification of variety identity

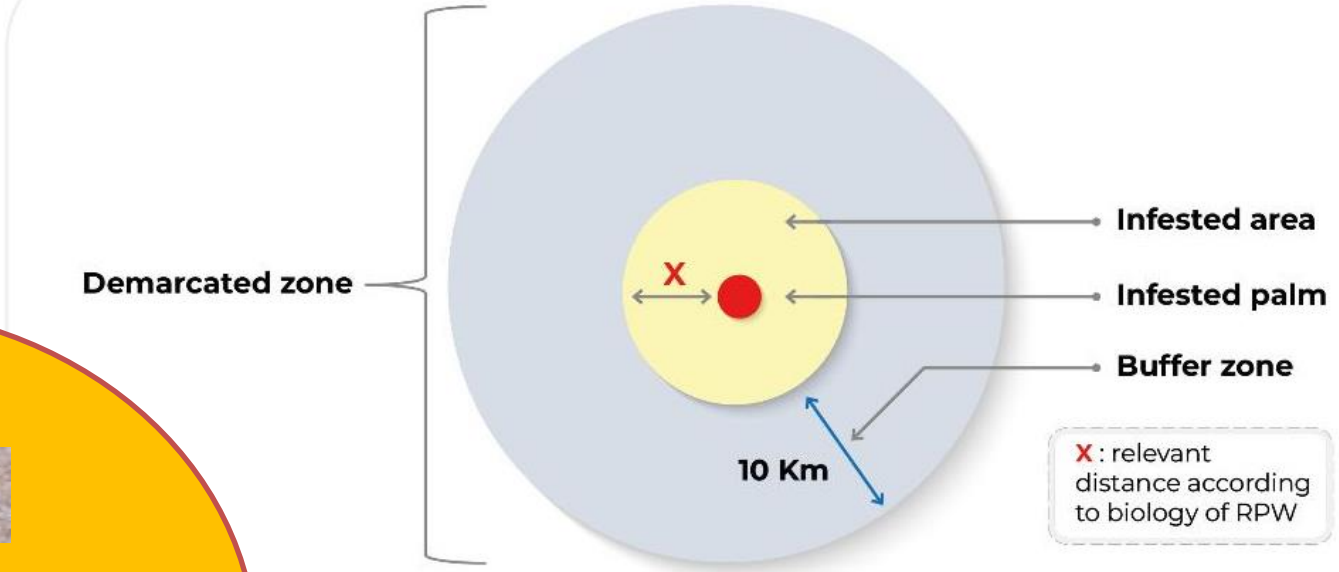
2. Pest free area of RPW

Pas de plantes hôtes (palmier dattier, cocotier, palmier de Canary et toute autre espèce de palmier)



Programme d'enquête sur la détection des pièges à phéromones (1/ha)

Absence de palmiers infestés ou de charançons rouges dans les pièges au cours des trois dernières années

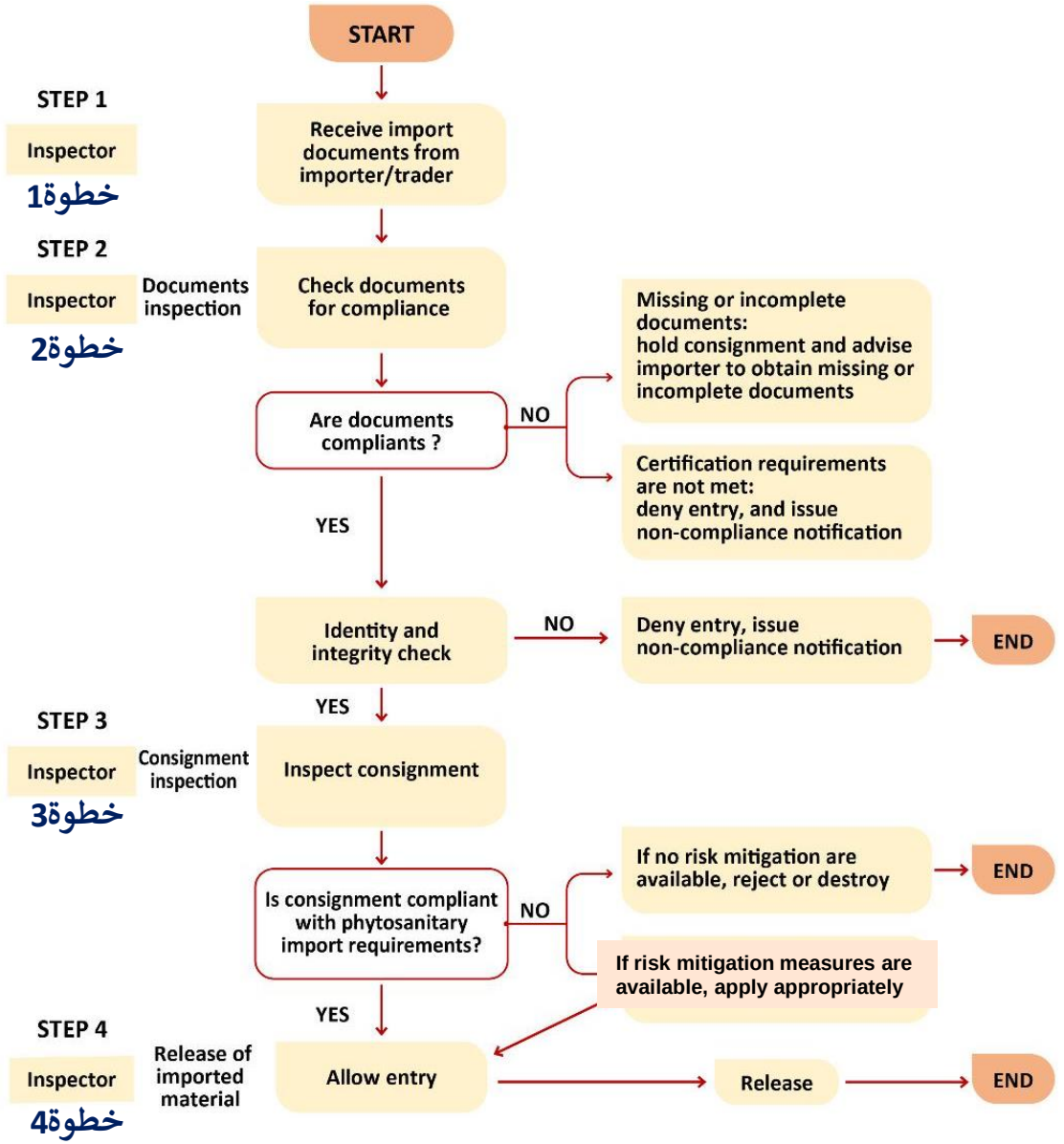


50 km

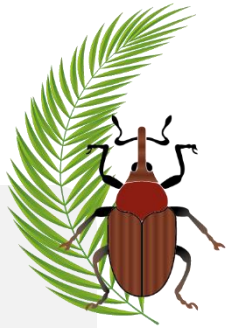
3. Guidelines for phytosanitary measures to prevent the spread of RPW *Rhynchophorus ferrugineus*

- ✓Plants for planting are considered as presenting a **higher risk** of pest introduction than other regulated articles;
- ✓Specific guidance on pest risk management is therefore needed to help address this higher pest risk (**ISPM 36**).

Le contrôle se fait sur 4 étapes



4. Protocol for available and cost-effective treatments of date palm offshoots and ornamentals at border against Red Palm Weevil



NEPPO established this regional protocol in line with International Standards for Phytosanitary Measures (ISPM) specifically ISPM 5, ISPM 14 and ISPM 28.

❖This regional protocol aimed at providing guidance for available and cost-effective treatments at borders of offshoots and ornamentals traded by NEPPO member countries against RPW.

❖It is intended to be used by National Plant Protection Organizations (NPPOs), in their capacity as bodies responsible for the official control of regulated pests.

Facilitate fair and organized trade of the commodities to and within the NENA region

Prevent the introduction and the spread of Red Palm weevil associated with date palm or ornamental palm plants for planting imported into NEPPO countries

Phytosanitary treatment is a useful measure to reduce the risk of introduction and spread of regulated pests through the international movement of commodities or regulated articles.

General requirements

Phytosanitary treatments of date palm offshoots and ornamentals palms against Red Palm Weevil at borders should fulfil the following requirement (ISPM 28):

- **be effective in killing the pest;**
- **be well documented to show that the efficacy data has been generated using appropriate scientific procedures;**
- **be feasible and applicable for use in international trade;**
- **not be phytotoxic or have other adverse effects.**

Research findings

For date palm trees

✓ **Saudi Arabia**

(Al-Shawaf A.M. & al, 2013) has revealed the effectiveness of Fipronil for the date palm offshoots treatment. It was recommended to dip date palm offshoots in 0.004% Fipronil for 30 min before transporting to ensure complete mortality of the hidden larval stages.

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Research findings

For ornamental palm trees

✓ **Spain: Ornemental (Canary palms)**

In Spain the research work aimed to determine the possibility of using aluminum phosphide in palms as a safe quarantine treatment against RPW. Results suggest that a dose of 1.14 g aluminum phosphide for 3 days is enough to kill all stages of *R. ferrugineus* in an infested palm tree (Llácer E. & Jacas J. A., 2010).

This technique can be used to treat offshoots when applying quarantine

Thank you

Train-the-Trainer workshop

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