Pest Risk Analysis Tool
Pest-initiated PRAs

This user guide focuses on the workflow for compiling pest-initiated PRAs. Additional documents cover general aspects of using the tool ('Getting started'), logging in and conducting pathway-initiated PRAs.

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Introduction

The PRA Tool currently has two workflows for conducting a PRA: **By Pathway** or **By Pest**:

A pathway-initiated PRA is focused on a single pathway which may have multiple pests associated with it. This type commonly arises from a request to import a new plant commodity or a commodity from a new country of origin.

A pest-initiated PRA is focused on a particular pest that may have multiple pathways of entry. This type may arise from a new information about the pest, a pest alert, interception or the results of a horizon scanning exercise.

This user guide describes the process for conducting a **pest-initiated PRA** in the CABI PRA Tool.

The tool is structured around the three stages of Pest Risk Analysis

Stage 1: Initiation – documenting the reason for the PRA;

Stage 2: Risk assessment - determining the likelihood of entry (via all potential pathways), establishment, spread and potential consequences of the pest in order to decide whether phytosanitary measures are required;

Stage 3: Risk management - selecting the appropriate management options to reduce the risks identified in Stage 2.

For further guidance on the PRA process please refer to the International Standards for Phytosanitary Measures developed by IPPC, in particular ISPM 2 and ISPM 11 at https://www.ippc.int/en/core-activities/standards-setting/ispms/

Initiation

Details of the PRA are entered on this page. The information added to these fields is used to search the Compendium (CPC) data to link to the relevant datasheet.

Search for a pest: start typing to search the CPC for a species name. This will enable the tool to link to the pest datasheet

Initiation: By Pest

Pest name *

Search the Crop Protection Compendium to link to a pest datasheet. Or if you cannot find the pest in the search dropdown you can add a new pest

| Search for a pest | 🔍 | | Or add a new pest name | | Add |

If the species name does not appear in the dropdown, it is not in the CPC. After checking the name is correct, use **Add a new pest name** which is a free-text field

Is this a demo or test PRA? * ⓘ

| Yes | No |

Country/area at risk *

Select country/area ⌄

Suggested title for PRA (this can be edited) *

<Pest name> In <country/area>

Demo mode is for demonstration and learning purposes. Select this option if you do not want the pest information you add to this session to be used in later PRAs

PRA start date   **PRA due date**

📅   📅

PRA area

An officially defined country or part of a country for which the pest risk analysis is being conducted. Define as precisely as possible.

(3000 characters left)

Define scope of PRA

This can include information on:
- Reason(s) why the PRA is required
- Details of the pathway
- Mode(s) of transport

(3000 characters left)

Reason for PRA

Select reason for PRA

Do previous PRAs exist for this pest?

| Yes | No |

Do previous PRAs exist for this pest? Selecting 'Yes' will open up two additional text boxes:
Details of previous PRAs for the pest in the PRA area
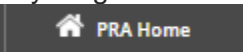Details of other relevant PRAs for the pest

🔺 References

Expand the **References** box to add citations. This text box will be accessible throughout the tool and can be edited and added to at any point. References are included in the PRA report

| Save | Next |

*Pest name, demo vs live, country/area at risk and title are compulsory fields.

Next   Links to **Categorization**, the next step in the PRA.

Navigation in the tool

The Home page can be accessed at any stage of the PRA process via the **breadcrumb trail** at the top of the page or by selecting [🏠 PRA Home] in the top left-hand corner on the tool. It is recommended that you use these options rather than the back arrow on your browser because this is ensures that the system closes the windows properly.

The tool is designed around **four tabs that you can access at any point** in the PRA process:

- Categorization
- Risk assessment
- Risk management
- PRA summary

1. Categorization	2. Risk assessment	3. Risk management	4. PRA summary
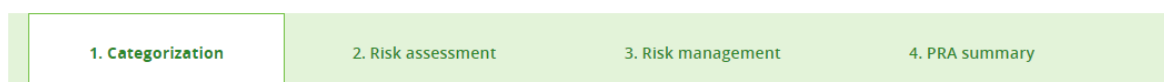
Categorization

Categorization is a rapid assessment of the pest's potential for establishment and impact to determine whether the pest potentially requires phytosanitary measures:

- If the pest does not meet the basic criteria of a quarantine pest, the PRA process can stop.

- If the pest does meet the criteria of a quarantine pest, or in the absence of sufficient information, the uncertainties should be identified and the PRA process should continue to the detailed risk assessment stage.

> A quarantine pest is defined as: A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled (FAO, 2019 ISPM 5).

Buttons have been provided in some sections to import some general pest information directly from the Compendium datasheet into the PRA in a concise format.

Import from CPC

Risk assessment

Risk assessment is composed of five tabs:
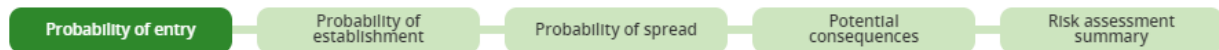
The first four tabs link to forms with a set of questions. Text can be added below each question. Guidance is provided for some questions under **Factors to consider**. Access to the datasheet is provided but additional resources will usually need to be consulted to complete the risk assessment.

The full citations of sources cited in the PRA should be added to the **References** section at the bottom of each page. There is a single references section for the whole PRA. This can be expanded/collapsed by clicking on the green arrow. You need to click on the **Edit References** button to enter text. This is to ensure only one user at a time is editing this section when working in 'Team View'. If it is locked for editing, please save your references in another document and return later.

Next to each question, there are two dropdown lists: **Rating** and **Confidence level**. These are selected manually to allow you to assign a summary rating and confidence level for each of the four steps (probability of entry, probability of establishment, probability of spread and potential consequences) in the risk assessment.

Ratings available are:	**Confidence levels available are:**
Not assessed	Not assessed
Negligible	Low
Low	Medium
Medium	High
High	

At the bottom of each tab, these dropdown options are provided for you to conclude the probability of entry, establishment, spread and potential consequences:

The summary rating and confidence level from each tab are carried forward in the PRA to the final risk assessment tab which is the **Risk assessment summary**, so it is important to complete these as fully as possible. There is no automated summary, it is up to you as the risk assessor to make the conclusions and explain any uncertainty that arises from conflicting or incomplete information.

  Saves and remains on the risk assessment page. If your internet connection is unstable, it is recommended that you go to the bottom of the page and 'Save' at frequent intervals

  Saves and moves onto the next stage of the risk assessment

Probability of entry

Potential pathways for introduction can be selected and assessed as part of the risk assessment process.

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There are a four risk assessment questions addressing probability of entry which can be answered for each pathway selected. Each pathway is assessed individually to determine whether risk management is required if it is concluded that the pest is indeed a quarantine pest in the other steps of the risk assessment.

The conclusion for a single pathway ('plants for planting') is shown in the figure below. If the answer to the question '**Does this pathway require management measures?**' is 'No', the pathway will not be considered further in this PRA.

Summary

Add summary rating

Medium ▾

Add summary confidence level

Low ▾

Add a summary note

↶ ↷ | **B** *I* | 🔗 ⌗

Plant importation is generally seen as the main pathway aiding the spread of *R. ferrugineus*. However, there is considerable uncertainty amongst experts about the relative importance of plants for planting as a pathway compared to local spread (EPPO, 2020a).

There have also been further minor pathways discussed in the past:

Esteban-Duran *et al.* (1998) suggested that *R. ferrugineus* is among the pests that could potentially be introduced to Spain and other countries of the European Union through imported vegetables (CABI, 2020).

The importation of palm frond greenery as cut flowers is an unlikely pathway for the movement and entry of red palm weevil. Eggs may be deposited in the proximal end of the frond where young larvae feed before moving into the main part of the palm (Faleiro 2006; Salama *et al.* 2009). However, young *R. ferrugineus* in cut fronds are unlikely to be able to complete development before the frond dries to an unsuitable level, and are also unlikely to move to find a suitable host due to their limited mobility (Bertone, *et al.* 2010).

There do not seem to be any proven cases where the species has been able to invade as a stowaway not associated with palm trees. However, there have been five interceptions of unidentified *Rhynchophorus* spp. from baggage and cargo at US ports (PestID, 2009). Two

Do you consider this pathway a major or a minor pathway?

⦿ Major   ○ Minor

Does this pathway require management measures?

⦿ Yes   ○ No

Cancel   Save

The 'Probability of entry' tab shows an overview of all the pathways that have been selected for this pest.

Risk assessment summary

The 'Risk assessment summary' page contains a table with the summary ratings and confidence levels selected for probability of entry, probability of establishment, probability of spread and potential consequences.

Edit   Select to return to the risk assessment and edit the relevant tab.

Based on the information included in the risk assessment, the decision should be made as to whether the pest requires phytosanitary measures. This completes the risk assessment stage:

Does the pest require phytosanitary measures?

○ Yes   ○ No

Yes – the option to continue to risk management will appear

No – the PRA can end

Exporting a Word risk assessment form to edit offline

Once a PRA has been created online in the tool, and the potential pathways of entry have been selected, an MS Word version of the risk assessment form can be exported from the 'Probability of entry' tab.

This is useful if you do not want to use the internet the entire time and means you can also involve others who do not have access to the tool to contribute to the risk assessment. The export can be created at any time and can include partially edited sections but note that **importing the Word form back into the online tool will overwrite any content that exists in the PRA**. A special file is created with the pest name and it is this same file that must be re-imported into the tool, it cannot be copied to create a form for a different pest.

The Word form includes the PRA initiation details and existing references which are uneditable but the risk assessment text boxes, risk ratings, confidence levels and additional references fields are the same as in the tool. If it is concluded that phytosanitary measures are required for the pest, the risk management form can also be completed. The exported Word form supports tracked changes if this functionality is important to you.

A PDF of the datasheet can also be downloaded from the top menu to use offline.

This export/import functionality is intended for those who can complete the PRA online in the tool to benefit from the PRA report and archive. If it is not intended to complete the PRA online, you could use the PRA report download and complete it in Word.

Risk management

The risk management form lists all pathways that were identified as requiring phytosanitary measures at the 'Probability of entry' step. Although the text boxes appear small here and headings are not provided, there is no limit to the content and subheadings that can be added to the text boxes. It may be useful to refer to the options used in the pathway-initiated PRA workflow for pre-border headings relating to plant commodities.

To **select a post-border phytosanitary measure**, click on the check box and add details in the text box underneath. If you do not select with a tick, the notes will not be carried forward to the 'Pest risk analysis summary'.

Pest risk analysis summary

This tab provides a summary of the risk assessment ratings and the management options selected for each pathway that represents a risk, plus any general measures. Management options can be edited by returning to the 'Pest risk management' tab.

Text boxes are provided to conclude the PRA which includes the **Summary** for the phytosanitary measures that have been selected to provide an appropriate level of protection for the PRA area and a place to note **Next steps** and **Contact details**.

PRA notes

Summary

A lot of research has recently become available on the biology of the red palm weevil (*Rhynchophorus ferrugineus*), including the prevention of its introduction, containment and control. Some of this work is still ongoing, and a range of suggested control measures still require further trials before they can become more widely available. However, the information already available (including from PRAs that already exist for this species) is sufficient to make informed assessments with high confidence levels for most parts of this PRA. The information below gives a summary assessment of the PRA on *R. ferrugineus*:

The species is highly invasive and has recently expanded beyond its natural range from southern and southeast Asia westwards, over vast areas of the Middle East and the Mediterranean basin.

Although it has been recorded from Mauritania, natural direct dispersal from this country is unlikely short term, but still plausible over time.

Currently, the only major and likely pathway of introduction of *R. ferrugineus* is through the import of palm trees with a stem diameter >5 cm.

If the species were to be accidentally introduced to Ghana, the likelihood of establishment and rapid spread throughout the country is high. This is mainly based on

Last modified on 14/06/2021

[Edit]

Next steps

Peer review.

Last modified on 14/06/2021

[Edit]

Contact Details

CABI PRA Team (PRA@cabi.org)

[Edit]

Change PRA status to complete?

○ Yes   ● No

The PRA can be finalized by clicking on the **'Change PRA status to complete'** button.

The PRA will then show as 'complete' in your 'Recent PRAs' and 'Previous PRAs' on the Home page. You can still go back and edit the PRA at any time by clicking on the PRA.

PRA report

The report output can be generated at any stage of the PRA process.

The report will initially be generated as an HTML document but can be exported as a Word document by selecting the download button:

Actions 🖨 📥
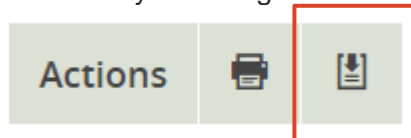
For further information and news, please visit the Help page or contact PRA@cabi.org.