

**Guidelines on Pest Risk Analysis****Lignes directrices pour l'analyse du risque phytosanitaire****PM 5/7 (1) Screening process to identify priorities for commodity PRA for plants for planting****Specific scope**

The Decision-Support Scheme is intended to be used by NPPOs to identify priorities for commodity PRAs for imports of plants for planting (except seeds) from a given origin. This is applicable for new trade and for the re-evaluation of existing trade.

**Specific approval and amendment**

First approved in 2013–09.

**Introduction**

The EPPO Study on the Risk of Imports of Plants for Planting<sup>1</sup> arises from discussions in several EPPO fora regarding the challenges posed by trade of plants for planting for the plant health system. In September 2009, the EPPO Council Colloquium considered whether the plant health systems that are in place in the EPPO region are able to deal with the challenges of increasing trade and climate change. The outcome of the Colloquium was further discussed during the Working Party on Phytosanitary Regulations in 2010. The Working Party agreed that new trade is an especially important challenge for plant health systems. In particular, it was concluded that experiences with new trade (new origins, new commodities) of plants for planting and the associated risks require a thorough analysis.

Most of the 50 EPPO member countries, including the 27 EU Member States, operate under an 'open' phytosanitary system, under which a commodity that is not specifically prohibited can be imported. The system is called 'open' because the specific risk that the commodity poses from different origins is not always assessed before entry is allowed.

It was noted that under the current 'open' system it is not possible to identify and address potential new pest risks in a timely manner. In addition, ensuring adequate inspec-

tion and proper application of regulations and taking action in cases of non-compliance is very demanding for the importing countries. There is evidence that this system is contributing to the introduction of new pests into the EPPO region and some EPPO member countries have initiated a re-evaluation of their plant health systems.

A study was undertaken on the Risk of Imports of Plants for Planting and this covers all plants for planting, except true seeds. The study consisted of an analysis of recent outbreaks that could be associated with the import of plants for planting. Criteria linked to the (potential) risks, e.g. those that seem to be consistently associated with outbreaks related to imports of plants for planting, were identified and used to develop the Decision-Support Scheme outlined in this Standard.

**Objectives of the screening process**

This Decision-Support Scheme (DSS) is intended to be used in a context of a 'reverse strategy' for new trades whereby an approval would need to be given before a commodity of plants for planting could be imported. As it is not possible to undertake commodity PRA for all potential new trades of plants for planting, the proposed screening process should allow a preliminary pragmatic and rapid identification of those that may pose the highest risks.

This DSS has been designed as a simple screening process and is not intended to be a risk analysis process. It

<sup>1</sup>Available at [http://www.eppo.int/QUARANTINE/EPPO\\_Study\\_on\\_Plants\\_for\\_planting.pdf](http://www.eppo.int/QUARANTINE/EPPO_Study_on_Plants_for_planting.pdf)

provides criteria that will allow NPPOs to identify priorities for commodity PRAs to be performed for plants for planting from given origins before importation can take place. It could also be used by NPPOs to develop lists of families/genera of given origins for which a commodity PRA is considered necessary or not necessary provided that a minimum set of criteria is fulfilled.

Re-evaluation of existing trade of plants for planting may also be needed and this DSS can also be used in this context.

NPPOs may use the DSS according to their specific needs that are related to the trade pattern of imports of plants for planting into their country. It is recommended that NPPOs subject imports of plants for planting to the process where there is limited or no experience with the commodity based on previous imports. Some indicative criteria for the identification of such trade are provided in Appendix 1.

### Decision-Support Scheme to identify and prioritize the need for a commodity PRA to import plants for planting

A summary of the DSS is presented in the form of a flow diagram (Fig. 1).

The different steps of the flow diagram as well as explanations when relevant are given below.

The process should begin with Step 1.

#### Step 1

This is an assessment of the invasiveness of the plant intended to be imported.

- *'Existing record of plant invasiveness?'*

This should be carried out by browsing scientific literature and databases on invasive plants. EPPO lists on invasive alien plants should first be considered ([http://www.eppo.int/INVASIVE\\_PLANTS/ias\\_lists.htm](http://www.eppo.int/INVASIVE_PLANTS/ias_lists.htm)).

Gordon *et al.* (2010) recommend gathering evidence from internet and primary literature by searching with the following criteria: Taxon name + 'weed', 'invas\*', 'invad\*', 'pest'. The following references are also useful:

Weber E (2003). *Invasive Plant Species of the World. A reference guide to environmental weeds.* Oxon, CABI Publishing.

Global Invasive Species Programme (GISP) database ([www.issg.org/data base/welcome/](http://www.issg.org/data_base/welcome/)).

- *EPPO Prioritization process for invasive alien plants: see EPPO Standard PM 5/6.*

#### Step 2

This step identifies if important pests are associated with the plant.

- *Documented evidence of important pests associated with the plant.*

When information on the association of pests with the genus/species intended to be imported exists (see e.g. PQR), an analysis should be made to identify those that are important and not covered by existing phytosanitary requirements in the country of import. Pests that are present in the country of import and not regulated should not be taken into account in this analysis. When pests not covered by existing requirements are identified, conducting a PRA is recommended.

#### Step 3

This step identifies if the plants are important at destination.

#### Step 4

This step identifies the need for a commodity PRA before import. The order of criteria in the flow diagram provides the NPPO with an indication of the priorities for conducting commodity PRAs (commodities for which the need of a commodity PRA is identified towards the top of Step 4 are considered to present a higher risk).

- *'Originate or grown for any period in the wild?'*

For the purpose of this Standard, wild is defined as 'any place not registered as a place of production by the NPPO'.

A place of production is defined as 'any premises or collection of fields operated as a single production or farming unit. This may include production sites which are separately managed for phytosanitary purposes' (ISPM 5 Glossary of Phytosanitary Terms). Any plant material grown for any period in the wild should be categorized as coming from the wild, e.g. a grafted plant, if either the scion or the root-stock comes from the wild. Such information can be obtained through communication with the importer and the NPPO of the exporting country.

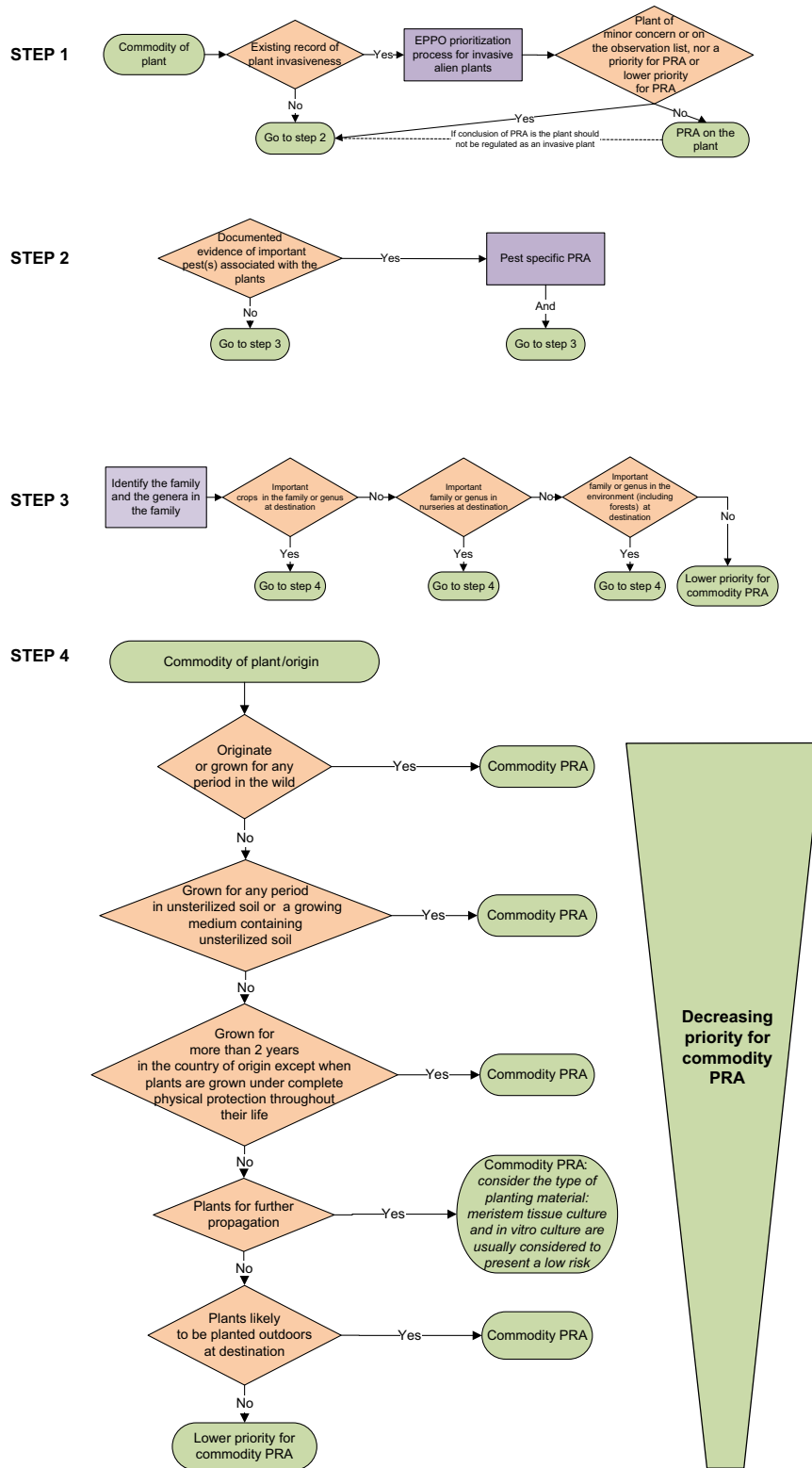
*'Grown for any period in unsterilized soil or a growing medium containing unsterilized soil?'*

There is currently no definition for soil, a draft ISPM *Movement of growing media in association with plants for planting in international trade* is in preparation and may provide an internationally agreed definition of soil attached to plants for planting. Growing medium is defined as 'Any material in which plant roots are growing or intended for that purpose' (ISPM 5).

Sterilization is defined as 'Process of applying heat (vapours, dry heat or boiling water), irradiation or chemical treatments in order to destroy micro-organisms' (ISPM 32). This will also destroy other pests such as arthropods and nematodes.

The answer to this question should be 'yes' for plants grown in unsterilized soil (or a growing medium containing unsterilized soil) even if the growing medium has at some point been removed or replaced by sterilized growing medium.

The presence of soil with the commodity increases the risk.



**Fig. 1** Flow diagram illustrating steps 1 to 4 of the screening process. *The order of criteria in step 4 may be adapted on a case-by-case basis depending on the commodity.*

Such information can be obtained through communication with the importer and the NPPO of the exporting country.

- *‘Grown for more than two years in the country of origin except when plants are grown under complete physical protection throughout their life?’*

Pest risk usually increases with plant age, as older plants have had longer exposure to potential pests. Pest risk usually increases with size because larger plants have a larger surface area exposed to pests and may also be more difficult to inspect and treat. However, age and size are not always correlated (e.g. artificial dwarfing) or pests could be associated with specific plant growth stages.

Plants which have been grown under complete physical protection throughout their life are considered to pose lower risk. Plants which are grown outdoors for less than two years are also considered to pose a lower risk than those grown for longer periods. It is generally agreed that the risk increases with the time of growing outdoors.

The threshold of two years was selected because it covers perennial plants and is based on the assumption that after two years the plants are still relatively small. However, this may need to be revised based on experience with running the DSS.

It is recognized that the EPPO Study on the Risk of Imports of Plants for Planting identified large plants as presenting a higher risk than small ones and this was identified as a primary criterion. It is considered that the criterion *‘Grown for more than two years’* will implicitly cover this primary criterion.

Complete physical protection means any protective measures which prevent the risk of entry of any arthropod pests (e.g. glasshouses with gauze in the windows). Hygiene measures have been implemented to reduce the risk of pathogens.

In vitro culture is considered to be under complete physical protection.

In the case of seedlings or cuttings the time period taken into account starts from the time of sowing or planting the cuttings. For plants derived from plants *in vitro*, the time period starts when the *in vitro* period ends.

For grafted plants the age of mother plants where cuttings or scions are taken may not be included into this period but the age of the rootstock should be taken into account.

For plants produced from bulbs and tubers, the period for producing the bulbs and tubers should also be taken into account.

Such information can be obtained through communication with the importer and the NPPO of the exporting country.

- *‘Plants likely to be planted outdoors at destination?’*

Plants intended to be planted outside at destination are considered to present a higher risk than indoor plants in terms of the transfer and spread of pests to potential host plants in the wider environment. Also, in the event of an outbreak eradication is more problematic. The risk of plants which are mainly used as pot plants (indoors) is considered

much lower. These tend to be tropical plant species and the risk that they will carry pests which could establish outdoors is generally assumed to be lower. Some of them may also be planted outdoors. In such situations, based on the scale of planting the NPPOs will have to make a case by case decision.

The final intended use of the imported commodity should be considered. For example cuttings of *Pelargonium* are usually rooted indoors but could be planted outdoors subsequently in particular in the southern part of the EPPO region. In that case, the answer would be ‘yes’ as the final product may be planted outdoors (e.g. in gardens).

Such information can be obtained through communication with the importer.

## Appendix 1: Criteria for trade situations in which the application of the DSS is recommended

### 1. Criteria for the identification of new trade

The most important characteristics of a new trade are:

- A new origin (e.g. a new country of origin<sup>2</sup>), or
- A new genus, or new species<sup>3</sup>,
- A change of type of commodity (e.g. pot plants with growing media attached versus plant *in vitro*),
- Irregular imports of very small quantities even over a number of years,
- Trade that has taken place in the distant past without any significant trade in the intervening period.

For individual consignments such criteria are easy to retrieve as they are based on information that is mentioned on a phytosanitary certificate or can be obtained during import inspection. For the identification of new trade, records of existing and past imports of consignments of plants for planting should be available and retrievable (see point 3).

The limits of the criteria (e.g. what is considered as a small quantity, the period for irregular import) should be determined by the NPPO. It is recognized that these criteria may need to be adapted for a possible transition period for Countries implementing a ‘reverse strategy’.

### 2. Criteria for re-evaluation of existing trade

Pest status and crop production conditions may evolve rapidly in the exporting country. In addition, the volume regu-

<sup>2</sup>Plants coming from a new area of origin in large countries can be considered as a new trade however, it is recognized that this information is difficult to retrieve from the Phytosanitary certificates and will result in implementation difficulties.

<sup>3</sup>A new cultivar/variety is not considered to be a new trade for the purpose of this screening process. Although different cultivars may have different levels of resistance to a particular pest, this information will be difficult to retrieve from trade data and ISPM 12 *Phytosanitary certificates* only requires details up to species level.

larity and how recently trade has happened are important criteria to determine if an existing trade needs to be re-evaluated.

Re-evaluation of trade may be triggered by information on:

- Changes in pest status conditions in the exporting country,
- Changes in crop production conditions in the exporting country,
- History of non-compliance,
- Volume of trade (an increase in trade may result in a higher risk of introduction of pests and may need re-evaluation).

The limits of the criteria for the increase of volume of trade should be determined by the NPPO.

### 3. Data collection

For the identification of trade to be subjected to the DSS trade records of existing and past imports of consignments

of plants for planting should be readily available or at least retrievable. Such information can be used to identify plant/origin combinations to be subjected to the DSS before import. A database should be established to be used by NPPOs which could include an interface that would allow importers/exporters to access directly to ascertain whether the commodity they intend to import/export has to be notified to the NPPO before import in order to allow an evaluation according to the DSS.

In the database, details should be available on:

- plant species (at minimum genus level),
- countries of origin,
- if known area of origin,
- related quantities in relevant units,
- types of commodity (i.e. rooted cuttings/unrooted cutting, plants with or without growing media, plants in vitro, budwood/graftwood, etc.),
- point of entry,
- date of import.