

## PM 6/1(2) First import of non-indigenous biological control agents for research under confined conditions

**Specific scope:** This Standard gives guidelines for the first import of non-indigenous biological control agents for research under confined conditions. It provides guidance on the information that a research organization should supply in a notification to the national authority, and guidance on how the national authority should review and respond to the notification. In addition, the Standard provides a list of general safeguards that should be followed.

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### 1 | INTRODUCTION

Non-indigenous organisms may pose risks to agricultural and natural ecosystems if they establish in the environment. Therefore, their import into countries should be done with great care. Organizations that work with biological control agents (BCAs) (e.g. for research or as a manufacturing company) may wish to import non-indigenous organisms to investigate their potential as BCAs. If this research includes the release of a BCA in protected conditions (e.g. greenhouses, polytunnels) or in the field, it carries a risk comparable to a full-scale environmental release. For assessing the safety of releasing a BCA into the environment, see EPPO Standard PM 6/2 (3) *Import and release of non-indigenous biological control agents* (EPPO, 2014). If, however, the research is conducted under confined conditions, it carries a lower level of risk. The present Standard is concerned with this case. In general, International Standards for Phytosanitary Measures (ISPM) no. 3 *Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms* (FAO, IPPC, 2017) serves as the model for this. It describes that governments should designate a national authority responsible for implementation. For the purposes of first import of BCAs for research under confined conditions, the national authority should establish an official notification

procedure. The administration required, including the necessity for a legal framework, will vary from country to country. The importing organization should notify the national authority of its intention to import non-indigenous organisms for biological control research under confined conditions, and the national authority should respond to the notification by granting or withholding authorization of the import and providing relevant guidance.

At the time of import, many biological characteristics of the organism, such as climatic requirements, life cycle and exact host range, may not be known, and it may also not be clear how the organism will be used for biological control. It is the purpose of the research to determine this. As a result, the initial notification can only meet minimum requirements for information, as detailed in Section 2.

### 2 | NOTIFICATION

The research organization, which intends to import a non-indigenous organism as a potential BCA should first evaluate the safety of the import and should prepare a notification for submission to the national authority. The notification should include a report or a dossier with the following relevant information:

1. The name and address of the organization concerned, and the names of the persons planning to conduct the research (along with contact details – email addresses and phone numbers),
2. Permissions from the exporting country, if required,
3. The purpose of the research,
4. A description of the confinement facilities where the research and/or rearing will be conducted (Standard Operating Procedures can be included to assess the risk of escape of the organism and of contaminating (hyper) parasitoids, parasites or pathogens if they are likely to be present (see 5 & 8 below),
5. An accurate identification of the organism (taxonomy: class, order, family, genus, species and if

relevant the sub-species), along with the name of the taxonomic expert that was consulted to confirm the identity of the organism, and information on the identification method(s). If the organism has not been identified or formally described, suitable characterization should be provided to allow its unambiguous recognition,

6. Details of where a voucher specimen will be deposited,
7. Details of the proposed import (e.g. amount and life stage(s) of the organism, country of origin, source population, and if relevant accompanying living organisms used as food, host or substrate),
8. Whether the organism was collected from the wild (with greater risk of contaminants and (hyper) parasitoids, parasites or pathogen) or reared in the laboratory (in the case of the latter, information on the approximate number of generations that have been reared in the laboratory and on which host/prey species),
9. Where available, information on the biology and ecology of the organism (life cycle, development and reproductive biology, survival in extreme conditions (e.g. diapause), mechanisms and ability of dispersal, potential for establishment, climatic conditions in the area of native distribution, description of the habitat(s) in the native area, and known natural enemies),
10. Information on the target species and, if available, the host range of the organism, details on any previous releases and use in biological control, experience of environmental impact, and risks for agriculture, horticulture, forestry and natural ecosystems. In addition, any information on previous risk assessments should be mentioned,
11. Information on earlier imports (in the same or other countries), by whom, with what purpose, and what the results were, if available,
12. Information on the use or disposal of the non-indigenous BCA during, and upon completion of the research (e.g. will the material be destroyed\*, treated\*, or maintained for release),
13. A description of packaging to ensure secure containment during transport.

The notification procedure should be followed before the first import of a given non-indigenous organism from a given origin. Generally, it is not necessary to notify again in detail if further imports of the same organism are made from the same origin, unless there are new circumstances. It may, however, be useful to report such imports to the national authority. If another research organization makes an independent import of

the same organism in the same country, it should notify as for a first import.

### 3 | GUIDANCE

The national authority should examine the notification and provide, within a reasonable time, an official response, e.g. granting or withholding authorization for import and giving appropriate guidance to the research organization. This may relate to:

1. Procedures for packaging and movement of biological material,
2. Documentation to accompany packages of non-indigenous BCA and to inform the exporter accordingly,
3. Suitability of confinement facilities, including quarantine facilities, if necessary,
4. Procedures to be followed if contaminants, (hyper) parasitoids, parasites or pathogens are likely to be present,
5. Systems of work, e.g. security, hygiene measures and record keeping of the research conducted,
6. Procedures for destroying and disposing of the organism and terminating the research.

### 4 | GENERAL SAFEGUARDS

In general, the following precautions should be taken when the organism is imported:

1. Shipments should be properly packaged to ensure that the organisms cannot escape during transport,
2. The shipment should be properly labelled to ensure identification by customs and other relevant authorities. Suitable information should be prominently displayed on the outside of the package to inform those handling the package of the contents,
3. Advance notice of the content of the package (with full details of routing) should be provided to those handling it and to the receiver to minimize delays and alert those concerned,
4. Risks to plant, animal and human health should be considered, and all appropriate regulations should be respected,
5. Biodiversity conventions (e.g. Nagoya Protocol and other legislative acts) should be respected.

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\* if the material is destroyed or treated, the methodology should be detailed.

Control Agents. The Standard was reviewed by the Joint EPPO/IOBC Panel on Biological Control Agents.

## REFERENCES

- EPPO (2014) PM 6/2 (3) Import and release of non-indigenous biological control agents. *EPPO Bulletin* 44, 320–329.
- FAO (2017) *ISPM 3. Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms*. IPPC, Rome, IT.

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