

Organisation Européenne et Méditerranéenne pour la Protection des Plantes  
European and Mediterranean Plant Protection Organization

# **Normes OEPP**

# **EPPO Standards**

Phytosanitary procedures  
Procédures phytosanitaires

PM 3/63



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## Approval

EPPO Standards are approved by EPPO Council. The date of approval appears in each individual standard. In the terms of Article II of the IPPC, EPPO Standards are Regional Standards for the members of EPPO.

## Review

EPPO Standards are subject to periodic review and amendment. The next review date for this set of EPPO Standards is decided by the EPPO Working Party on Phytosanitary Regulations.

## Amendment record

Amendments will be issued as necessary, numbered and dated. The dates of amendment appear in each individual standard (as appropriate).

## Distribution

EPPO Standards are distributed by the EPPO Secretariat to all EPPO member governments. Copies are available to any interested person under particular conditions upon request to the EPPO Secretariat.

## Scope

EPPO Phytosanitary Procedures are intended to be used by National Plant Protection Organizations, in their capacity as bodies responsible for the inspection, testing and treatment of plants and plant products moving in trade, or for the implementation of surveys against quarantine pests.

## References

- EU (2000) Council Directive 2000/29/EC of 8 May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the community. *Official Journal of the European Communities* No. L169, 1–112.
- EPPO/CABI (1997) *Quarantine Pests for Europe*, 2nd edn. CAB International, Wallingford (GB).
- FAO (1997) *International Plant Protection Convention* (new revised text). FAO, Rome.
- IPPC (1999) *Glossary of phytosanitary terms*. ISPM no. 5. IPPC Secretariat, FAO, Rome (IT).
- OEPP/EPPO (1996) *Illustrations of Quarantine Pests for Europe*. EPPO, Paris (FR).
- OEPP/EPPO (2000) EPPO Standard PM 1/2(9) EPPO A1 and A2 lists of quarantine pests. In *EPPO Standards: General phytosanitary measures*. EPPO, Paris.

## Definitions

*Fumigation*: treatment with a chemical agent that reaches the commodity wholly or primarily in a gaseous state.

*Inspection*: official visual examination of plants, plant products or other regulated articles to determine if pests are present and/or to determine compliance with phytosanitary regulations.

*Monitoring*: an official ongoing process to verify phytosanitary situations.

*Phytosanitary procedure*: any officially prescribed method for implementing phytosanitary regulations including the performance of inspections, tests, surveillance or treatments in connection with regulated pests.

*Survey*: an official procedure conducted over a defined period of time to determine the characteristics of a pest population or to determine which species occur in an area.

*Test*: official examination, other than visual, to determine if pests are present or to identify pests.

*Treatment*: officially authorized procedure for the killing, removal or rendering infertile of pests.

## Outline of requirements

EPPO Standards on phytosanitary procedures describe the methods to be followed for performing inspections, tests or treatments of commodities moving in trade, or surveys against quarantine pests. For many quarantine pests, a reference to the relevant EPPO Phytosanitary Procedure is made in the corresponding EPPO Pest-specific phytosanitary requirements (EPPO Standards PM 2).

## Existing EPPO standards in this series

EPPO Standards on phytosanitary procedures arise from the programmes of activity of the EPPO Panels on Phytosanitary Measures and on Phytosanitary Treatments. The first 58 EPPO Standards on phytosanitary procedures were originally published in *Bulletin OEPP/EPPO Bulletin*, following a numbering sequence described in *Bulletin OEPP/EPPO Bulletin* 20, 229–233, which provides a list in approximate chronological order of appearance. Two more recent standards have been published: PM 3/59(1) *Synchytrium endobioticum*: soil tests and descheduling of previously infested plots. *Bulletin OEPP/EPPO Bulletin* 29, 221–232.

PM 3/60(1) Testing growing medium and plants in growing medium. *Bulletin OEPP/EPPO Bulletin* 32, 223–230.

All these EPPO Standards have recently been revised to bring them into line with new EPPO terminology, and published in a new publication *Phytosanitary Procedures*, available from the EPPO Secretariat, 1 rue Le Nôtre, 75016 Paris (FR).

## Phytosanitary procedures Procédures phytosanitaires

# Production of pathogen-free minitubers of potato

### Specific scope

This standard describes systems for the production of pathogen-free minitubers of potato as a basis for their international movement.

### Specific approval and amendment

First approved in 2004-09.

### Introduction

According to EPPO Standard PM 8/1 Commodity-specific phytosanitary measures for potato, minitubers produced according to the present Standard may be moved into or between countries as propagation stock I (as defined in EPPO Standard 4/28 Certification scheme for seed potatoes) or prebasic seed TC (UN/ECE equivalent) without the need for post-entry quarantine or additional testing (which may be a requirement of the certification scheme in some countries). This possibility is subject, if appropriate, to transitional arrangements.

### Specific definitions

*Minitubers of potato*: tubers produced by microplants of potato in a growing medium meeting specified requirements.

### Requirements

The minitubers should meet the definition of seed potatoes in EPPO Standard PM 8/1 (Commodity-specific phytosanitary measures for potato).

The place or site of production should be an official facility or a facility authorized by the NPPO. It should be operated under standard operating procedures with appropriate quality checks. It should be audited by the NPPO (or certifying authority) at least once every 12 months. This should include a review of documentation and operating procedures.

### Requirements for pest-free production

The minitubers should be produced at a pest-free place of production or at a pest-free production site, with respect to all regulated pests of potatoes in the importing country. ISPM no. 10 (IPPC, 1999) should be consulted for general requirements. The following particular requirements should also be made.

The minitubers should have been produced from pathogen-free microplants that have been produced according to EPPO

Standard PM 3/62 Production of pathogen-free microplants of potato. Only officially approved potato material should be grown in the facility. Crops of other plant species should not be grown in the same facility unless it can be technically justified that those species cannot be infected by any pathogen able to infect potato.

The minituber production facility should be located ideally in a pest-free area for all regulated pests of potato in the importing country. Otherwise measures should be used to ensure that the production site or place of production remains pest-free. Depending on the pests, measures may include:

- location of facilities in areas with low pest pressure
  - production timed to take place at a time of year when there is low pest pressure
  - structure and facilities (growth room, glasshouse, screen-house) that prevent the entry of aphids and other pests.
- The following precautions should be taken:
- double doors, concrete floors or floors covered with a protective sheet to prevent soil contaminating the production area
  - controls on entry of staff to the facility. Only authorized staff allowed entry
  - use of protective clothing (e.g. overalls and shoes dedicated for use in the production facility) disinfection of footwear and hand washing on entry.

### Growing medium, water supply and fertilizer

The growing medium should be pest-free and approved by the NPPO of the importing country. It may be a soil-less compost. Alternatively, if the medium contains soil, it should be heat-treated to eliminate pests by a proven and documented procedure. The growing medium should be transported and stored in such a way that it does not become contaminated with pests before use.

The water supply used in the production facility for irrigation or hydroponic culture should be pest-free. Water from a deep

well or spring, or mains tap water, may be used. Water that may pose a pest risk should be treated or disinfected by a proven and documented procedure before use and regular checks made to ensure that the pathogen of concern has been eliminated. Preferably only inorganic fertilizer should be used. Organic fertilizer should not be used unless sterilized by a proven and documented procedure.

#### **Growing cycle, harvest, storage and packaging**

The plants should be kept free from pest vectors, e.g. aphids, and from other pests, at all times. For this purpose, a pest monitoring and control programme should be implemented and documented.

The production facility should be cleaned after each production run. The tubers should be stored in a dedicated store that operates at a level of confinement sufficient to exclude pests. Handling equipment should be regularly cleaned and boxes or trays used to store the material should be cleaned before each use. Facilities and equipment should also be periodically disinfected. New bags or boxes should be used for marketing the minitubers and should be sealed in a manner to prevent contamination or infestation of the minitubers by regulated pests.

#### **Verification of pest-free status**

The growing crop should have been officially inspected at least twice and be found free from pests at each inspection. The crop should also be free from rogues and off-types. The tubers should have been officially inspected and be free from regulated pests. For marketing purposes, they should also meet the minimum tolerances (growing medium and defects) for propagation stock I, as described in EPPO Standard PM 4/28 Certification scheme for seed potatoes<sup>1</sup>.

Facilities and equipment should be fit for the purpose and

well maintained. The minituber producer should carry out regular inspections to ensure that the required confinement measures are maintained. All staff involved in producing the minitubers should have appropriate education, training and experience in administrative and management techniques for the production of this material.

The minituber producer should document the management, technical and operational procedures for the production of minitubers. Particular attention should be paid to those control measures used to prevent infestation or contamination of the minitubers by pests during their production, harvest and storage, and during transport to their destination. The following documents and records should also be maintained: staff training records; records of all tests done on the material, results of tests; records of lineage in a manner ensuring traceability for at least 10 years.

#### **Evaluation of minituber production systems**

This Standard may be used in the evaluation of minituber production systems in exporting countries. The NPPO of the exporting country should give the NPPO of the importing country the opportunity to evaluate its minituber production system, including, on request, an audit of relevant documents and of the facility.

#### **Reference**

IPPC (1999) *Requirements for the establishment of pest-free places of production and pest-free production sites*. ISPM no 10. IPPC Secretariat, FAO, Rome (IT).

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<sup>1</sup>Some EPPO countries may at the present time have stricter requirements for propagation stock I. Depending on the pest, the level of confinement and the perceived phytosanitary risk, testing during the growing season and a post-harvest tuber test may be required to verify pest freedom.