

Approval

EPPO Standards are approved by EPPO Council. The date of approval appears in each individual standard.

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. In the terms of Article II of the IPPC, EPPO Standards are Regional Standards for the members of EPPO.

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 Schemes for the Production of Healthy Plants for Planting are intended to be used by NPPOs or equivalent authorities, in their capacity as bodies responsible for the design of systems for production of healthy plants for planting, for the inspection of such plants proposed for phytosanitary certification, and for the issue of appropriate certificates.

References

- OEPP/EPPO (1991) Recommendations made by EPPO Council in 1990: general scheme for the production of certified pathogen-tested vegetatively propagated ornamental plants. *Bulletin OEPP/EPPO Bulletin* **21**, 757.
- OEPP/EPPO (1992) Recommendations made by EPPO Council in 1981: certification of virus-tested fruit trees, scions and rootstocks. *EPPO Technical Documents* no. 1013, 42–43.
- OEPP/EPPO (1993) Recommendations made by EPPO Council in 1992: scheme for the production of classified vegetatively propagated ornamental plants to satisfy health standards. *Bulletin OEPP/EPPO Bulletin* **23**, 735–736.

Definitions

Basic material: propagation stock material from all but the last stage of propagation stock, satisfying the recommended certification standards and certified for sale. According to the number of stages of propagation stock, there may be several grades of basic material.

Candidate nuclear stock: any plant that may become or may be propagated to produce nuclear stock. Testing for specified pests is required before the plant can be accepted as nuclear

stock. Until testing is complete and negative, the plant remains candidate nuclear stock.

Certification scheme: system for the production of vegetatively propagated plants for planting, intended for further propagation or for sale, obtained from nuclear stock after several propagation stages under conditions ensuring that stated health standards are met. The filiation of the material is recorded throughout the scheme.

Certified material: propagating material from the last stage of propagation stock, satisfying the recommended certification standards and certified for sale. In the case of plants which are sold grafted onto rootstocks, the rootstocks must also be at least of the last stage of propagation stock, and the plants must be held under approved conditions between grafting and sale. Certified material may, according to the plant concerned, be referred to more specifically as, for example, certified plants, certified cuttings, certified bulbs, etc.

Classification scheme: system for the production of vegetatively propagated plants for planting intended for further propagation or for sale, obtained from selected candidate material after one or several propagation stages under conditions ensuring that stated health standards are met. Different classes may be defined according to the inspections and tests used, the tolerance levels applied and the precautions taken. The filiation of classified material is not considered.

Filiation: the line of descent by vegetative propagation from a defined parent plant.

Nuclear stock: plants individually tested by the most rigorous procedure in a certification scheme and found free from specified pests. All such plants must be maintained at all times under strict conditions ensuring freedom from infection. According to the crop concerned, plants propagated from nuclear stock material may remain nuclear stock provided that they do not leave the nuclear stock conditions. In the case of plants which are maintained by grafting onto rootstocks, the rootstocks must also be nuclear stock.

Nuclear stock material: propagating material derived from nuclear stock, which may be further propagated without change of ownership, or certified for sale as pre-basic material.

Pre-basic material: nuclear stock material, satisfying the recommended certification standards and certified for sale.

Propagation stock: plants derived from nuclear stock, propagated and maintained under conditions ensuring freedom from infection. Pathogen freedom is checked by appropriate procedures. Propagation may be done in a number of successive stages under different approved conditions. The plants are then known as propagation stock I, propagation stock II, etc. There may be several generations within each of these stages, provided that the plants do not leave the approved conditions. The number of stages and/or generations allowed within propagation stock is generally limited and will depend on the crop concerned. In the case of propagating material which is maintained by grafting on a rootstock, the rootstock should be at least of the corresponding stage of propagation stock.

Propagation stock material: propagating material derived from propagation stock, which may be further propagated without change of ownership, or certified for sale as basic or certified material, according to the stage of propagation stock concerned.

Outline of requirements

EPPO Schemes for the Production of Healthy Plants for Planting describe the steps to be followed for the production of vegetatively propagated planting material of a particular cultivated plant, whose health status is attested by an official certificate. Certification and classification represent distinct alternative approaches to the production of healthy planting material. In a typical certification scheme, the certified material is descended by not more than a fixed number of steps from individual plants each of which is tested and found free from pests, and is then maintained and propagated under rigorous conditions excluding recontamination. In a classification scheme, the classified material is descended by one or more steps from material which, as a population, meets certain health standards and is maintained and propagated under conditions minimizing recontamination. In both cases, however, health status is attested by an official certificate. Which of the approaches is appropriate for a given cultivated plant depends on considerations of cost and resources, health status required, practical possibilities for testing, rate of recontamination and the value of the final material.

EPPO Schemes for the Production of Healthy Plants for Planting give details on the selection, growth and maintenance of the candidate material, and on the propagation of this material in several stages under conditions ensuring that stated health standards are met. Appropriate checks on specified pests are specified throughout the scheme. Information is provided, as necessary, on relevant pests, cultural practices, inspection and testing methods, recommended certification standards.

Existing EPPO standards in this series

Thirty-four EPPO standards have already been approved and published, under the title Certification Schemes. This set of standards introduces a new title for the series. Each standard is numbered in the style PM 4/2 (1), meaning an EPPO Standard on Phytosanitary Measures (PM), in series no. 4 (EPPO Schemes for the Production of Healthy Plants for Planting), in this case standard no. 2, first version. The existing standards are:

PM 4/2 (2) Pathogen-tested material of carnation. *Bulletin OEPP/EPPO Bulletin 32*, 55–66.

PM 4/3 (3) Pathogen-tested material of pelargonium. *Bulletin OEPP/EPPO Bulletin 32*, 67–78.

PM 4/4 (2) Pathogen-tested material of lily. *Bulletin OEPP/EPPO Bulletin 32*, 79–90.

PM 4/5 (2) Pathogen-tested material of narcissus. *Bulletin OEPP/EPPO Bulletin 32*, 91–104.

PM 4/6 (2) Pathogen-tested material of chrysanthemum. *Bulletin OEPP/EPPO Bulletin 32*, 105–114.

PM 4/7 (2) Nursery requirements. *Bulletin OEPP/EPPO Bulletin 31*, 441–444.

PM 4/8 (2) Pathogen-tested material of grapevine varieties and rootstocks. *Bulletin OEPP/EPPO Bulletin 38*, 422–429.

PM 4/9 (2) Pathogen-tested material of *Ribes*. *Bulletin OEPP/EPPO Bulletin 38*, 14–18.

PM 4/10 (2) Pathogen-tested material of *Rubus*. *Bulletin OEPP/EPPO Bulletin 39*, 271–277.

PM 4/11 (2) Pathogen-tested material of strawberry. *Bulletin OEPP/EPPO Bulletin 38*, 430–437.

PM 4/12 (1) Pathogen-tested citrus trees and rootstocks. *Bulletin OEPP/EPPO Bulletin 25*, 737–755.

PM 4/13 (2) Classification scheme for tulip. *Bulletin OEPP/EPPO Bulletin 32*, 115–122.

PM 4/14 (2) Classification scheme for crocus. *Bulletin OEPP/EPPO Bulletin 32*, 123–128.

PM 4/15 (2) Classification scheme for bulbous iris. *Bulletin OEPP/EPPO Bulletin 32*, 129–134.

PM 4/16 (2) Pathogen-tested material of hop. *Bulletin OEPP/EPPO Bulletin 39*, 278–283.

PM 4/17 (2) Pathogen-tested olive trees and rootstocks. *Bulletin OEPP/EPPO Bulletin 36*, 77–83.

PM 4/18 (1) Pathogen-tested material of *Vaccinium* spp. *Bulletin OEPP/EPPO Bulletin 27*, 195–204.

PM 4/19 (2) Pathogen-tested material of begonia. *Bulletin OEPP/EPPO Bulletin 32*, 135–146.

PM 4/20 (2) Pathogen-tested material of impatiens New Guinea hybrids. *Bulletin OEPP/EPPO Bulletin 32*, 147–158.

PM 4/21 (2) Pathogen-tested material of rose. *Bulletin OEPP/EPPO Bulletin 32*, 159–178.

PM 4/22 (2) Classification scheme for freesia. *Bulletin OEPP/EPPO Bulletin 32*, 179–184.

PM 4/23 (2) Classification scheme for hyacinth. *Bulletin OEPP/EPPO Bulletin 32*, 185–190.

PM 4/24 (2) Classification scheme for narcissus. *Bulletin OEPP/EPPO Bulletin 32*, 191–198.

PM 4/25 (2) Pathogen-tested material of kalanchoe. *Bulletin OEPP/EPPO Bulletin 32*, 199–210.

PM 4/26 (2) Pathogen-tested material of petunia. *Bulletin OEPP/EPPO Bulletin 32*, 211–221.

PM 4/27 (1) Pathogen-tested material of *Malus*, *Pyrus* and *Cydonia*. *Bulletin OEPP/EPPO Bulletin 29*, 239–252, with supplement in *Bulletin OEPP/EPPO Bulletin 31*, 445–446.

PM 4/28 (1) Seed potatoes. *Bulletin OEPP/EPPO Bulletin 29*, 253–267.

PM 4/29 (1) Certification scheme for cherry. *Bulletin OEPP/EPPO Bulletin 31*, 447–462.

PM 4/30 (1) Certification scheme for almond, apricot, peach and plum. *Bulletin OEPP/EPPO Bulletin 31*, 463–478.

PM 4/31 (1) Certification scheme for hazelnut. *Bulletin OEPP/EPPO Bulletin 34*, 145–147.

PM 4/32 (1) Certification scheme for *Sambucus*. *Bulletin OEPP/EPPO Bulletin 38*, 19–24.

PM 4/33 (1) Certification scheme for poplar and willow. *Bulletin OEPP/EPPO Bulletin 38*, 25–30.

PM 4/34 (1) Production of pathogen-tested herbaceous ornamentals. *Bulletin OEPP/EPPO* **38**, 31–52.

PM 4/35 (1) Soil test for virus–vector nematodes in the framework of EPPO Standard PM 4 Schemes for the production of healthy plants for planting of fruit crops, grapevine *Pouulus* and *Salix*. *Bulletin OEPP/EPPO Bulletin* **39**, 284–288.

The following standard in this series has been withdrawn:

PM 4/1 (1) Virus-free or virus-tested fruit trees and rootstocks. Parts I to IV. *Bulletin OEPP/EPPO Bulletin* **21**, 267–277; **22**, 255–283.