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

PM 8/9 (1)

Mesures phytosanitaires par marchandise Commodity-specific phytosanitary measures

PM 8/9 (1) Fagus

Specific scope

The purpose of this EPPO PM 8 Standard on Fagus is to recommend to EPPO Member Governments the phytosanitary measures which they should use or require for Fagus plants and plant products moving in international trade to prevent the introduction and spread of quarantine pests. Some of these recommendations are addressed to all EPPO Member Governments; others are addressed only to countries considered to face a certain level of risk from the introduction and spread of the regulated pests concerned. All these recommendations were derived from

- EPPO Standards PM 1/2 (EPPO A1 and A2 Lists) and the former EPPO Standards PM 2 (pest-specific phytosanitary measures), or
- Pest Risk Analysis carried out or reviewed by EPPO, or
- the Working Party on Phytosanitary Regulations.

For wood packaging material, recommendations are based on ISPM 15 Regulation of wood packaging material in international trade.

Specific approval and amendment

First approved in 2018-09.

1. Plants and commodities concerned

This Standard relates to all plants and plant products of the genus *Fagus*.

The Standard concerns the commodities that are regularly traded, that is wood (including untreated wood in manufactured articles), bark, plants for planting and cut branches. Wood packaging material, although not a commodity *per se*, is also included. Plants for planting are considered in general at the genus level. *Fagus* wood may be traded as pure or mixed consignments, for example wood chips obtained from woody plants of different genera. Since the genus should be indicated on the phytosanitary certificates, every genus present should be specified in the case of mixed consignments. Such consignments should satisfy all the requirements for every genus present.

Commodities concerned

Wood (as a commodity class): commodities such as round wood, sawn wood, wood chips and wood residue, with or without bark, excluding wood packaging material, processed wood material and bamboo products (ISPM 5).

Round wood: wood not sawn longitudinally, carrying its natural rounded surface, with or without bark (ISPM 5). Branches of woody plants used for bioenergy production should be considered under this category of commodities.

Sawn wood: wood sawn longitudinally, with or without its natural rounded surface with or without bark (ISPM 5).

Processed wood material: products that are a composite of wood constructed using glue, heat and pressure, or any combination thereof (ISPM 5).

Manufactured wood items: to be added when defined under the ISPM (under development) on 'International movement of wood products and handicrafts made of wood'.

Harvesting residues: wood material consisting of any parts of trees left on the site after round wood harvesting (EPPO Study on Wood Commodities other than Round Wood, Sawn Wood and Manufactured Items).

Processing wood residues: parts of wood and bark that are left after the process of transforming round wood into sawn wood and further transformation of sawn wood (EPPO Study on Wood Commodities other than Round Wood, Sawn Wood and Manufactured Items).

Wood chips: wood with or without bark in the form of pieces with a definable particle size produced by mechanical treatment with sharp tools (EPPO *Study on Wood Commodities other than Round Wood, Sawn Wood and Manufactured Items*).

Hogwood: wood with or without bark in the form of pieces of varying particle size and shape produced by crushing with blunt tools such as rollers, hammers or flails (EPPO Study on Wood Commodities other than Round Wood, Sawn Wood and Manufactured Items).

Post-consumer scrap wood: a wide variety of wood material from ex-commercial, industrial and domestic use made available for recycling (EPPO *Study on Wood Commodities other than Round Wood, Sawn Wood and Manufactured Items*).

Wood packaging material: wood or wood products (excluding paper products) used in supporting, protecting or carrying a commodity (includes dunnage) (ISPM 5). Because this is not a commodity *per se* it is separated from wood. It includes wooden structures that accompany traded commodities such as pallets, boxes, crates, spools and dunnage (maintain as in ISPM 15).

Cut branches (including coppiced stems): defined in ISPM 5 as 'a commodity class for fresh parts of plants intended for decorative use and not for planting'.

Bark (as a commodity): bark separated from wood (ISPM 5). Bark may contain pieces of wood with it.

Plants for planting: plants intended to remain planted, to be planted or replanted (ISPM 5). This commodity type includes nursery plants such as seedlings (1–5 years old, used for reforestation) and seeds. It also includes quite large trees (<20 years) for transplanting to gardens, amenity plantings or architectural plantings, and includes naturally or artificially dwarfed plants (bonsais). The risks of transporting regulated pests are different for trees of different ages.

Other definitions

Bark: the layer of a woody trunk, branch or root outside the cambium (ISPM 5).

Bark-free wood: wood from which all bark, except ingrown bark around knots and bark pockets between rings of annual growth has been removed (ISPM 5).

Debarked wood: wood that has been subjected to any process that results in the removal of bark (debarked wood is not necessarily bark-free wood) (ISPM 5).

Debarking: a process designed to remove a large majority of the bark, thereby producing debarked wood.

Heat treatment: the process in which a commodity is heated until it reaches a minimum temperature for a minimum period of time according to an official technical specification (ISPM 5).

2. Pests of *Fagus* recommended for regulation

This Standard relates to the EPPO A1 and A2 pests which are recommended for regulation as quarantine pests (EPPO Standard PM 1/2) for which *Fagus* can be a significant pathway of introduction. The phytosanitary measures described in the Standard are primarily aimed at preventing the introduction and spread of these specific pests in the EPPO region. Details on these pests can be found on the EPPO website (https://www.eppo.int/), in *Quarantine*

Pests for Europe (EPPO/CABI, 1997) or in Bulletin OEPP/EPPO Bulletin for more recent additions to the lists.

2.1 Pests of Fagus

A1 pests	A2 pests
Insects	Insects
Anoplophora glabripennis	Anoplophora chinensis
Apriona rugicollis	Lymantria mathura
Malacosoma americanum	Quadraspidiotus perniciosus
	Fungi and fungus-like organisms Phytophthora ramorum
	Phytophthora kernoviae

The above lists cover all pests which are recommended for regulation by EPPO and for which *Fagus* commodities are significant potential pathways of introduction.

They do not necessarily cover all regulated pests which have been recorded on *Fagus*.

New emerging pest situations, based on pest risk analysis (PRA), may lead to the addition of pests to the standard.

3. Commodity-specific phytosanitary requirements for *Fagus*

Each pest recommended for regulation has been considered by the EPPO Working Party on Phytosanitary Regulations, and pest-specific phytosanitary requirements were recommended (EPPO Standards PM 2, withdrawn in 2006). These former pest-specific requirements have been analysed and their content reviewed and rearranged into recommended commodity-specific requirements for *Fagus*. Phytosanitary measures for recently EPPO listed (A1 or A2) pests were taken from the pest risk management part of PRA performed by the EPPO Expert Working Groups and rearranged in a consistent way by the EPPO Panel on Quarantine Pests for Forestry.

The commodity-specific requirements also include general measures for polyphagous, contaminating and other non-indigenous pests which may be associated with consignments of *Fagus*.

In many places, the commodity-specific requirements refer to specific phytosanitary procedures. These are described in detail in separate EPPO Standards or in appendices to this Standard.

Normally, it is recommended that the requirements fulfilled by the exporting countries and stated on the phytosanitary certificate are accepted by the importing country. However, in certain cases where the trade is new there remains a degree of uncertainty about the adequacy of the application of the measures, which can only be resolved by following appropriate transitional procedures. These procedures should be developed in the framework of transitional arrangements (EPPO Standard under development). Cases where such special procedures apply may be specifically identified in this section, and the corresponding requirements are preceded by the phrase 'subject, where appropriate, to special procedures under transitional arrangements'.

Regulation of Fagus pests

Al pests

All EPPO countries are recommended to regulate as quarantine pests the *Fagus* pests in the EPPO A1 List (see Section 2).

A2 pests

For EPPO A2 pests recommended for regulation (see Section 2), EPPO countries where a given A2 pest is not present,

or where it is not widely distributed, are recommended to regulate it as a quarantine pest. If they do, they are recommended to follow the requirements specified for this pest.

4. List of recommended phytosanitary measures

Please note that for the tables below when 'OR' or 'AND' is written in capitals this separates two sections of options.

When 'or' or 'and' is not in capitals this separates only one option from another.

4.1. Requirements for Fagus

Plants for planting of Fagus

Plants for planting of Fagus other than seeds and plants in tissue cul-

Plants for planting of Fagus in tissue culture

Plants for planting of Fagus with soil and growing medium attached or in association

Plants for planting (except seeds) of *Fagus* originating in countries where any of the following pests is present:

Anoplophora chinensis

Anoplophora glabripennis

Apriona rugicollis

Lymantria mathura

Malacosoma americanum

Phytophthora kernoviae

 $Phytophthora\ ramorum$

Quadraspidiotus perniciosus

Plants for planting (except seeds) of *Fagus* originating in countries where any of the following pests is present:

Anoplophora chinensis

Anoplophora glabripennis

Plants for planting (except seeds) of Fagus originating in countries where Apriona rugicollis is present

PC and, if necessary, RC

Dormant, clean (i.e. free from plant debris) and free from leaves, flowers and seeds

Grown in nurseries

Inspected prior to export and found free from bacteria, viruses and viruslike organisms, or subjected to appropriate treatment to eliminate such organisms

Grown in approved tissue culture facilities in sterile conditions

The plants and growing medium inspected prior to export and found free from bacteria, viruses and virus-like organisms, or subjected to appropriate treatment to eliminate such organisms

Grown according to EPPO Standard PM 3/54

Free from the relevant pests listed in the left column

Pest-free area for relevant pests listed in the left column

AND

Transported outside of the corresponding flight periods

or

Not transported through areas infested with the relevant pest

or

Transported closed, to prevent infestation

Pest-free area for Apriona rugicollis

or

Pest-free site of production under protection for Apriona rugicollis

AND

Transported outside of the corresponding flight periods

or

Not transported through areas infested with the relevant pest

or

Transported closed, to prevent infestation

(continued)

Plants for planting (except seeds) of Fagus originating in countries where Malacosoma americanum or Lymantria mathura is present Pest-free area for Malacosoma americanum and Lymantria mathura

Grown according to EPPO Standard PM 5/8 on the phytosanitary measure 'plants grown under complete physical isolation'

Appropriate fumigation, details to be specified on the PC

Transported outside of Malacosoma americanum and Lymantria mathura flight periods

Not transported through areas infested with Malacosoma americanum and

Transported closed, to prevent infestation

Plants for planting of Fagus originating in countries where Phytophthora kernoviae or Phytophthora ramorum is present Pest-free area for Phytophthora kernoviae and Phytophthora ramorum

Pest-free place of production for Phytophthora kernoviae and Phytophthora ramorum and appropriate buffer zone with regular surveys and exclusion

measures for running water

Plants for planting (except seeds and plants in tissue culture) of Fagus

originating in countries where Quadraspidiotus perniciosus is present

Pest-free area for Quadraspidiotus perniciosus

Field of production, with its immediate vicinity, found free from Quadraspidiotus perniciosus during the last two growing seasons

Appropriate fumigation, details to be specified on the PC

Cut branches of Fagus

PC and, if necessary, RC

Cut branches of Fagus originating in countries where any of the

Free from the relevant pests listed in the left column following pests is present:

Lymantria mathura

Malacosoma americanum

Quadraspidiotus perniciosus

Cut branches of Fagus originating in countries where

Cut branches of Fagus originating in countries where

Quadraspidiotus perniciosus is present

Malacosoma americanum or Lymantria mathura is present

Pest-free area for Malacosoma americanum and Lymantria mathura

Originate from plants grown according to EPPO Standard PM 5/8 on the phytosanitary measure 'plants grown under complete physical isolation'

Appropriate fumigation, details to be specified on the PC

Transported outside of Malacosoma americanum and Lymantria mathura flight

periods

Not transported through areas infested with Malacosoma americanum and

Lymantria mathura

or

Transported closed, to prevent infestation

Pest-free area for Quadraspidiotus perniciosus

Field of production, with its immediate vicinity, found free from Quadraspidiotus

perniciosus during the last two growing seasons

Appropriate fumigation, details to be specified on the PC

Wood of Fagus PC and, if necessary, RC Wood of Fagus originating in countries where any of the following pests is present: Free from the relevant pests listed in the left column Anoplophora chinensis Anoplophora glabripennis Apriona rugicollis Phytophthora kernoviae Phytophthora ramorum Wood of Fagus originating in countries where Phytophthora kernoviae or Phytophthora Pest-free area for Phytophthora kernoviae and ramorum is present Phytophthora ramorum Round wood of Fagus originating in countries where any of the following pests is pre-Pest-free area for relevant pests listed in the left column Heat treatment according to EPPO Standard PM 10/6 Anoplophora chinensis Anoplophora glabripennis preceded by debarking or Treated with ionizing radiation according to EPPO Standard PM 10/8 AND Transported outside of the corresponding flight periods Not transported through areas infested with the relevant pest Transported closed, to prevent infestation Round and sawn wood with or without bark of Fagus originating in countries where Pest-free area for Apriona rugicollis Apriona rugicollis is present Heat treatment according to EPPO Standard PM 10/6 Treated with ionizing radiation according to EPPO Standard PM 10/8 Transported outside of the corresponding flight periods Not transported through areas infested with the relevant pest Transported closed, to prevent infestation Sawn wood without bark of Fagus originating in countries where any of the following Pest-free area for relevant pests listed in the left column pests is present: Heat-treated according to EPPO Standard PM 10/6 Anoplophora chinensis Anoplophora glabripennis or Treated with ionizing radiation according to EPPO Standard PM 10/8 Harvesting wood residues, processing wood residues, wood chips and hogwood of Pest-free area for the relevant pests listed in the left Fagus originating in countries where any of the following pests is present: column Anoplophora chinensis Anoplophora glabripennis Heat treatment to at least at 56°C for 30 minutes Apriona rugicollis throughout the whole profile of the consignment Chipped to pieces of less than 2.5 cm in any dimension Transported outside of the corresponding flight periods Not transported through areas infested with the relevant pest Transported closed, to prevent infestation Packaging wood of Fagus Requirements of ISPM 15

PC, phytosanitary certificate; RC, re-export phytosanitary certificate.

EPPO PRAs

5. List of associated Standards

It is proposed that individual phytosanitary procedures would be maintained as separate EPPO Standards, but that

they should be part of a package that will always accompany the forestry standard when approved.

The following Standards are referred to:

https://www.eppo.int/QUARANTINE/Pest_Risk_Analysis/PRA_intro.htm

EPPO Standards PM 3: Phytosanitary procedures

DM 2/20 (1)	
PM 3/29 (1)	General export inspection procedure for glasshouse and nursery enterprise
PM 3/54 (1)	Growing plants in growing medium prior to export
PM 3/60 (1)	Testing growing medium and plants in growing medium
EPPO Standards	PM 5: Pest risk analysis
PM 5/8 (1)	Guidelines on the phytosanitary measure 'Plants grown under complete physical isolation
EPPO Standards	PM 10: Phytosanitary treatments
PM 10/6 (1)	Heat treatment of wood to control insects and wood-borne nematode
PM 10/8 (1)	Disinfestation of wood with ionizing radiation
International Sta	ndards for Phytosanitary Measures
ISPM 4	Requirements for the establishment of pest free areas, 1996. FAO, Rome
ISPM 5	Glossary of phytosanitary terms, 2015. FAO, Rome
ISPM 10	Requirements for the establishment of pest free places of production and pest free production sites, 1999. FAO, Rom
ISPM 15	Regulation of wood packaging material in international trade, 2013. FAO, Rome
Other documents	referred to:
EPPO Study on Wood Wood and Manufact	Commodities other than Round Wood, Sawn https://www.eppo.int/media/uploaded_images/RESOURCES/eppo_publica tions/td_1071_study_wood_commodities.pdf

ADDENDUM

Addendum – PM 8/9 (1) Fagus

The EPPO Panel on Phytosanitary Measures recommended that an addendum to the EPPO Commodity-specific phytosanitary measures Standard PM 8/9 (1) *Fagus* (EPPO, 2018), should be prepared to flag the risk regarding Beech leaf disease. It was suggested that the Working Party statement, presented at Council in 2021 should be linked to the Standard.

1 | STATEMENT ON BEECH LEAF DISEASE

The Working Party on Phytosanitary Regulations would like to draw the attention of the EPPO member countries to the new disease called beech leaf disease. Beech leaf disease is absent from the EPPO region, and only reported in North America. Beech (Fagus spp.) is a very important species in European forests and is also used for amenity purposes. Although the disease mainly affects American beech (Fagus grandifolia) it was observed in 2016 on European beech (Fagus sylvatica) which is an important deciduous forest tree in Western and Central Europe. An EPPO Pest Risk Analysis will be prepared as soon as sufficient data is available. Member Countries are invited to review their current phytosanitary requirements for beech plants for planting and to consider whether they provide sufficient protection for this disease or need to be strengthened.

REFERENCE

EPPO (2018) PM 8/9 (1) Fagus, EPPO Bulletin 48, 495-500.